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McGuire Nuclear Station, Units 1 and 2
Docket Nos. 50-369 and 50-370
2017 Annual Radiological Environmental Operating Report

Pursuant to the requirements of Technical Specification 5.6.2 and Selected Licensee Commitment 16.11.16, please find enclosed the 2017 Annual Radiological Environmental Operating Report.

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DUKE ENERGY

ANNUAL RADIOLOGICAL ENVIRONMENTAL OPERATING REPORT

DUKE ENERGY CORPORATION
MCGUIRE NUCLEAR STATION
Units 1 and 2

2017

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

AREOR	Annual Radiological Environmental Operating Report
ARERR	Annual Radiological Effluent Release Report
BW	BiWeekly
C	Control
CR	Condition Report (analogous to Nuclear Condition Report (NCR))
DEHNR	Department of Health and Natural Resources
ERA	Environmental Resource Associates
EZA	Eckert & Ziegler Analytics
GEL	General Engineering Laboratory
GI-LLI	Gastrointestinal – Lower Large Intestine
GPS	Global Positioning System
I	Indicator
IR	Inner Ring
ISFSI	Independent Spent Fuel Storage Installation
LLD	Lower Limit of Detection
LLI	Low Level Iodine
M	Monthly
MDA	Minimum Detectable Activity
MNS	McGuire Nuclear Station
mrem	Millirem
MWe	Megawatt (electrical)
NIST	National Institute of Standards and Technology
NCR	Nuclear Condition Report (analogous to Condition Report (CR))
NRC	Nuclear Regulatory Commission
ODCM	Offsite Dose Calculation Manual
OR	Outer Ring
pCi/kg	picocurie per kilogram
pCi/l	picocurie per liter
pCi/m3	picocurie per cubic meter
Q	Quarterly
REMP	Radiological Environmental Monitoring Program
SA	Semiannually
SI	Special Interest
SLCs	Selected Licensee Commitments
SM	Semimonthly
T. Body	Total Body
TECH SPECs	Technical Specifications
TLD	Thermoluminescent Dosimeter
µCi/ml	microcurie per milliliter
UFSAR	Updated Final Safety Analysis Report
W	Weekly

1.0 EXECUTIVE SUMMARY

This Annual Radiological Environmental Operating Report describes the McGuire Nuclear Station Radiological Environmental Monitoring Program (REMP), and the program results for the calendar year 2017.

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 and ninety samples were analyzed comprising 1,286 test results in order to compile data for the 2017 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 2017 for station related radionuclides were generally within the ranges of concentrations observed in the past. Inspection of data showed that radioactivity concentrations in broadleaf vegetation, drinking water, fish, shoreline sediment, and surface water 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 2.47E-1 mrem for 2017. Background radiation dose in the United States is approximately 620 mrem per year (approximately half from naturally occurring sources such as radon and half from man-made sources such as medical processes).[1] It is therefore concluded that station operations has had no significant radiological impact on the health and safety of the public or the environment.

[1]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).

2.0 INTRODUCTION

2.1 SITE DESCRIPTION AND SAMPLE LOCATIONS

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

MNS consists of two pressurized water reactors. Each reactor unit is essentially a mirror image of the other joined by an auxiliary building housing both separate and common equipment. Each unit was designed to produce approximately 1200 gross MWe. 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:

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

Where:

$\overline{x}$ = estimate of the mean,
i = individual sample,
N = total number of samples with a net activity (or concentration),
χ_i = net activity (or concentration) for sample i.

2.3.2 LOWER LIMIT OF DETECTION AND MINIMUM DETECTABLE ACTIVITY

The Lower Limit 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

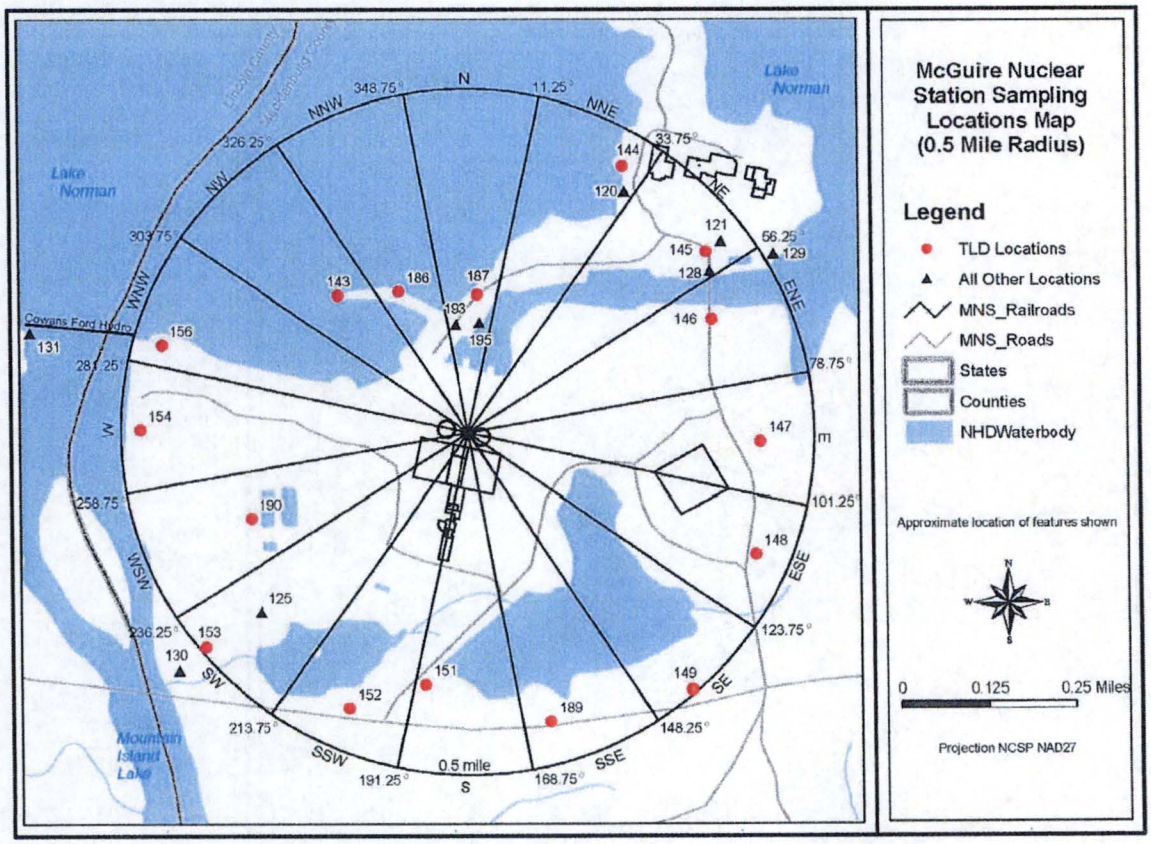
McGuire Nuclear Station Sampling Locations Map (0.5 Mile Radius)
Legend
TLD Locations
All Other Locations
MNS_Railroads
MNS_Roads
States
Counties
NHDWaterbody
Approximate location of features shown
0
0.125
0.25 Miles
Projection NCSP NAD27
Lake Norman
Mountain Island Lake
Cowans Ford Hydro
0.5 mile
N
NNE
NE
ENE
E
ESE
SE
SSE
S
SSW
SW
WSW
W
WNW
NW
NNW
11.25°
33.75°
56.25°
78.75°
101.25°
123.75°
148.25°
168.75°
191.25°
213.75°
236.25°
258.75°
281.25°
303.75°
326.25°
348.75°
120
121
123
125
128
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Figure 2.1-2

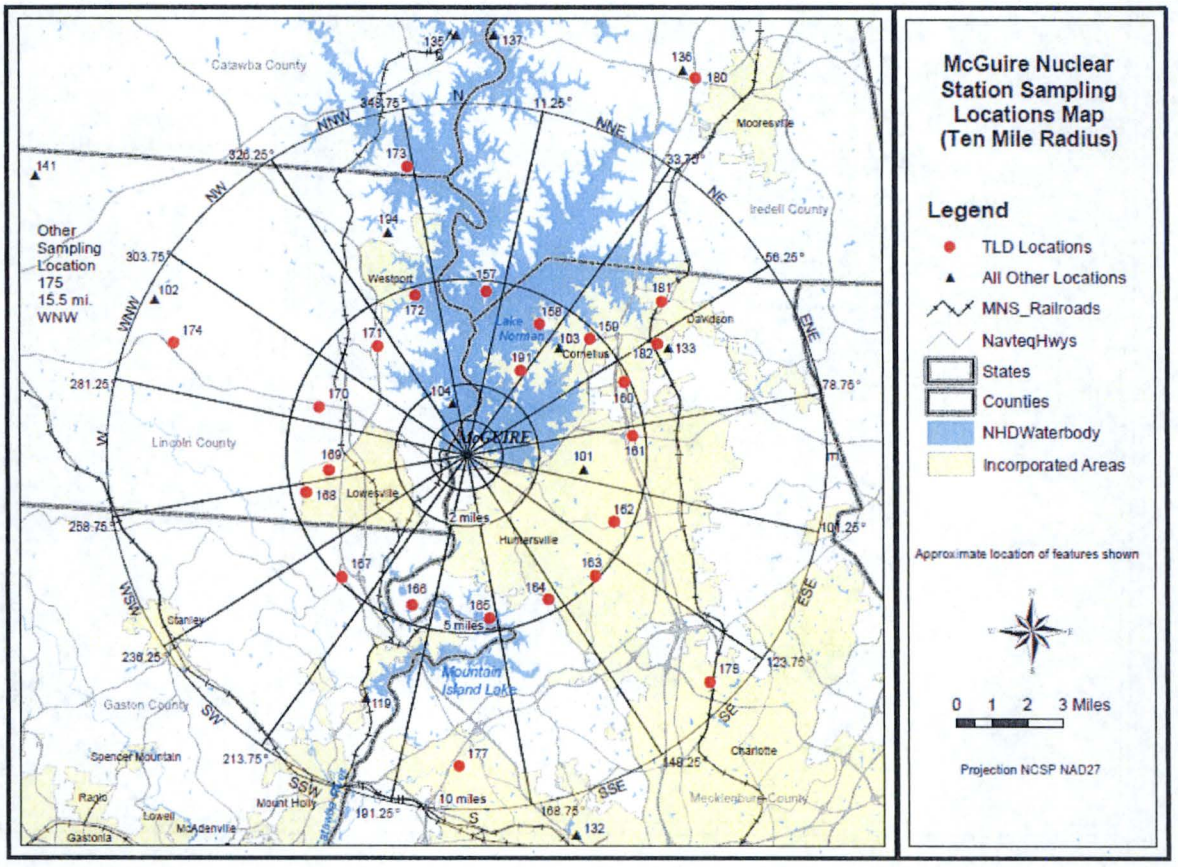

McGuire Nuclear Station Sampling Locations Map (Ten Mile Radius)
Legend
TLD Locations
All Other Locations
MNS_Railroads
NavteqHwys
States
Counties
NHDWaterbody
Incorporated Areas
Approximate location of features shown
0 1 2 3 Miles
Projection NCSP NAD27
Other Sampling Location 175 15.5 mi. WNW
MCGUIRE
2 miles
5 miles
10 miles
Catawba County
Lincoln County
Gaston County
Iredell County
Mecklenburg County
Mooresville
Davidson
Cornelius
Lake Norman
Westport
Lowesville
Huntersville
Charlotte
Mountain Island Lake
Spencer Mountain
Mount Holly
Stanley
Gastonia
Lowell
McAdenville
Radio
N
NNW
NW
NE
NNE
WNW
W
ENE
WSW
SW
SSW
S
SSE
SE
ESE
348.75°
11.25°
326.25°
33.75°
303.75°
56.25°
281.25°
78.75°
258.75°
101.25°
238.25°
123.75°
213.75°
148.25°
191.25°
168.75°

TABLE 2.1-A

MCGUIRE RADIOLOGICAL MONITORING PROGRAM
SAMPLING LOCATIONS

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

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

(a) During Harvest Season
(b) When Available

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

TABLE 2.1-B

MCGUIRE RADIOLOGICAL MONITORING PROGRAM
SAMPLING LOCATIONS (TLD SITES)

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

Site #	Measure Type	Location	Distance* (miles)	Sector	Site #	Measure Type	Location	Distance* (miles)	Sector
143	IR	SITE BOUNDARY	0.27	NW	164	OR	HAMBRIGHT & BEATTIES FORD ROAD	4.64	SSE
144	IR	SITE BOUNDARY	0.46	NNE	165	OR	ARTHER AUTEN ROAD	4.57	S
145	IR	SITE BOUNDARY	0.47	NE	166	OR	NECK ROAD REFUGE BOUNDARY	4.44	SSW
146	IR	SITE BOUNDARY	0.42	ENE	167	OR	LUCIA RIVERBEND HWY/OLD FIREHOUSE	4.87	SW
147	IR	SITE BOUNDARY	0.44	E	168	OR	OLD PLANK ROAD BRIDGE	4.60	WSW
148	IR	SITE BOUNDARY	0.46	ESE	169	OR	GLOVER LANE	4.03	W
149	IR	SITE BOUNDARY	0.50	SE	170	OR	LITTLE EGYPT ROAD	4.32	WNW
151	IR	SITE BOUNDARY	0.37	S	171	OR	TRIANGLE ACE HARDWARE	3.95	NW
152	IR	SITE BOUNDARY	0.44	SSW	172	OR	LAKESHORE S RD ISLAND VIEW COURT	4.69	NNW
153	IR	SITE BOUNDARY	0.47	SW	173	SI	KEISTLER STORE / GLENWOOD ROAD	8.39	NNW
154	IR	SITE BOUNDARY	0.45	W	174	SI	EAST LINCOLN JR. HIGH SCHOOL	8.85	WNW
156	IR	SITE BOUNDARY	0.44	WNW	175	C	BOGER CITY	15.5	WNW
189	IR	SITE BOUNDARY	0.43	SSE	177	SI	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^3)	Fish (pCi/kg-wet)	Milk (pCi/liter)	BroadLeaf Vegetation (pCi/kg-wet)
H-3	20,000[a],[b]	---	---	---	---
Mn-54	1,000	---	30,000	---	---
Fe-59	400	---	10,000	---	---
Co-58	1,000	---	30,000	---	---
Co-60	300	---	10,000	---	---
Zn-65	300	---	20,000	---	---
Zr-Nb-95	400	---	---	---	---
I-131	2	0.9	---	3	100
Cs-134	30	10	1,000	60	1,000
Cs-137	50	20	2,000	70	2,000
Ba-La-140	200	---	---	300	---

(a) If no drinking water pathway exists, a value of 30,000 pCi/liter may be used.
(b) H-3 Reporting level not applicable to surface water

TABLE 2.2-B

REMP ANALYSIS FREQUENCY

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

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

TABLE 2.2-C

MAXIMUM VALUES FOR THE *A PRIORI* LOWER LIMITS OF DETECTION

Analysis	Water (pCi/liter)	Air Particulates or Gases (pCi/m^3)	Fish (pCi/kg-wet)	Milk (pCi/liter)	BroadLeaf Vegetation (pCi/kg-wet)	Sediment (pCi/kg-dry)
Gross Beta	4	0.01	---	---	---	---
H-3	2,000 [(a)]	---	---	---	---	---
Mn-54	15	---	130	---	---	---
Fe-59	30	---	260	---	---	---
Co-58, 60	15	---	130	---	---	---
Zn-65	30	---	260	---	---	---
Zr-Nb-95	15	---	---	---	---	---
I-131	1 [(b)]	0.07	---	1	60	---
Cs-134	15	0.05	130	15	60	150
Cs-137	18	0.06	150	18	80	180
Ba-La-140	15	---	---	15	---	---

(a) If no drinking water pathway exists, a value of 3,000 pCi/liter may be used.
(b) If no drinking water pathway exists, the LLD of gamma isotopic analysis may be used.

3.0 INTERPRETATION OF RESULTS

Review of 2017 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 2017 information required by Technical Specification Administrative Control 5.6.2 are located in Appendix B. McGuire 2017 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 2017 was 5.23% for drinking water tritium at the North Mecklenburg Water Treatment Facility (Location 101). Only Selected Licensee Commitments radionuclides were detected in 2017.

Ground water monitoring wells located on the MNS site are part of the Nuclear Energy Institute (NEI) 07-07 radiological groundwater monitoring wells and are reported in the MNS Annual Radioactive Effluent Release Report (ARERR). NEI 07-07 was developed to describe the industry's Ground Water Protection Initiative. NEI 07-07 radiological groundwater monitoring wells are used to assure timely detection and effective response to situations involving inadvertent radiological releases to ground water to prevent migration of licensed radioactive material off-site and to quantify impacts on decommissioning. These monitoring wells are not used for Radiological Environmental Monitoring Program (REMP), because they do not monitor water supply for drinking or irrigation purposes. These are not REMP wells because there is no dose associated with this pathway. The McGuire site is bounded to the west by the Catawba River channel and the hydraulic gradient for McGuire flows toward the Catawba River. Sentinel wells are installed and monitored at regular intervals for early detection purposes (NCR # 02035750).

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 2017. Similarly, there was no significant increase in ambient background radiation levels in the surrounding areas. The 2017 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 2017, 371 radioiodine and particulate samples were analyzed, 318 from six indicator locations and 53 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). An additional gamma analysis was performed on the final 2017 air particulate sample set for calendar reconciliation purposes (NCR # 02174501). Radioiodine samples received a weekly gamma analysis.

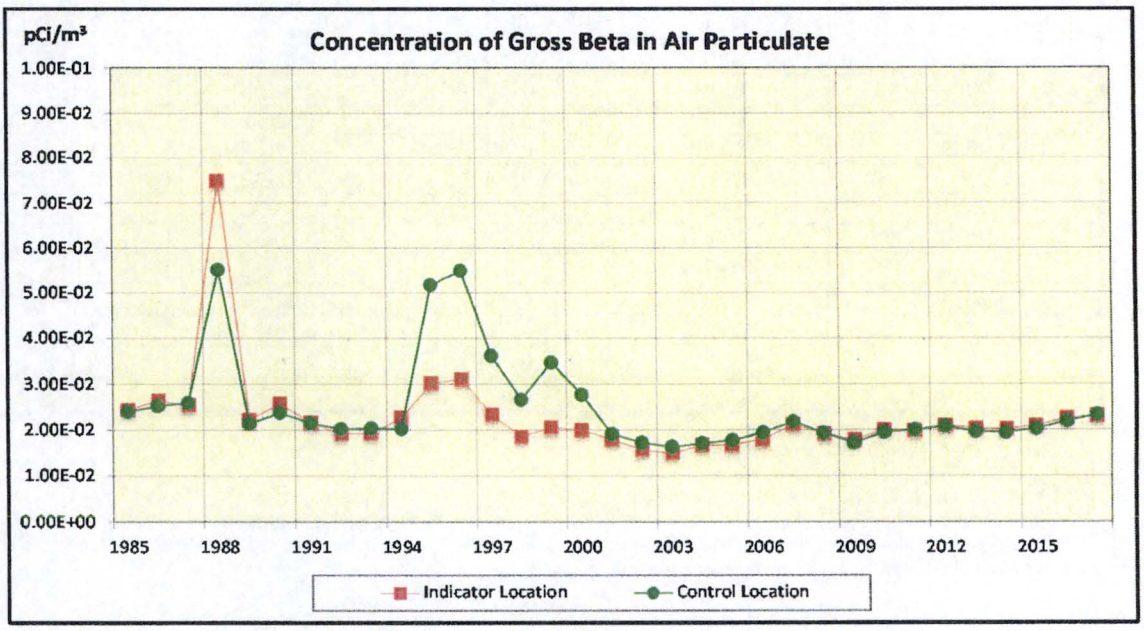
Gross beta analyses indicated 2.31E-2 pCi/m^3 at the location with the highest annual mean and 2.33E-2 pCi/m^3 at the control location. No gamma emitting radionuclide attributable to MNS plant operation has been detected in any air samples since 2004 when Co-58 was observed (NCR # 01552730).

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

Table 3.1-B gives indicator location highest annual means and control means since 1979 for I-131. Preoperational and ten year averages are also shown. No I-131 activity due to MNS plant operation has been detected since 1989. Since no activity was detected in 2017, no reporting levels were approached.

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

Figure 3.1



There is no reporting level for Gross Beta in air particulate

Table 3.1-A Mean Concentrations of Radionuclides in Air Particulate

YEAR	Cs-137 Indicator (pCi/m^3)	Cs-137 Control (pCi/m^3)	Beta Indicator (pCi/m^3)	Beta Control (pCi/m^3)
1979*	4.40E-3	1.47E-3	Not Performed	Not Performed
1980*	6.70E-3	4.53E-3	Not Performed	Not Performed
1981*	6.16E-3	5.32E-3	Not Performed	Not Performed
1982*	3.82E-3	2.29E-3	Not Performed	Not Performed
1983*	2.93E-3	3.21E-3	Not Performed	Not Performed
1984	1.74E-3	8.29E-4	Not Performed	Not Performed
1985	1.86E-3	1.32E-3	2.44E-2	2.40E-2
1986	4.98E-3	3.03E-3	2.64E-2	2.52E-2
1987(1)	1.07E-2	7.91E-3	2.54E-2	2.59E-2
1988	0.00E0	0.00E0	7.49E-2	5.51E-2
1989	0.00E0	0.00E0	2.22E-2	2.14E-2
1990	0.00E0	0.00E0	2.58E-2	2.37E-2
1991	0.00E0	0.00E0	2.16E-2	2.15E-2
1992	0.00E0	0.00E0	1.92E-2	2.02E-2
1993	0.00E0	0.00E0	1.93E-2	2.04E-2
1994	0.00E0	0.00E0	2.28E-2	2.02E-2
1995	0.00E0	0.00E0	3.02E-2	5.17E-2
1996	0.00E0	0.00E0	3.11E-2	5.49E-2
1997	0.00E0	0.00E0	2.34E-2	3.62E-2
1998	0.00E0	0.00E0	1.86E-2	2.66E-2
1999	0.00E0	0.00E0	2.06E-2	3.47E-2
2000	0.00E0	0.00E0	2.00E-2	2.77E-2
2001	0.00E0	0.00E0	1.79E-2	1.91E-2
2002	0.00E0	0.00E0	1.57E-2	1.72E-2
2003	0.00E0	0.00E0	1.50E-2	1.63E-2
2004	0.00E0	0.00E0	1.67E-2	1.71E-2
2005	0.00E0	0.00E0	1.68E-2	1.77E-2
2006	0.00E0	0.00E0	1.79E-2	1.94E-2
2007	0.00E0	0.00E0	2.12E-2	2.18E-2
2008	0.00E0	0.00E0	1.92E-2	1.93E-2
2009	0.00E0	0.00E0	1.79E-2	1.76E-2
2010	0.00E0	0.00E0	2.01E-2	1.95E-2
2011(2)	7.06E-3	0.00E0	1.99E-2	2.00E-2
2012	0.00E0	0.00E0	2.10E-2	2.08E-2
2013	0.00E0	0.00E0	2.04E-2	1.96E-2
2014(3)	0.00E0	0.00E0	2.02E-2	1.94E-2
2015	0.00E0	0.00E0	2.10E-2	2.02E-2
2016	0.00E0	0.00E0	2.26E-2	2.19E-2
2017	0.00E0	0.00E0	2.31E-2	2.33E-2

0.00E0 indicates no detectable measurements

* Radioiodine and Particulates analyzed together

(1) 1987 – Gamma spectroscopy system change

(2) 2011 – Concentration affected by Fukushima Daiichi

(3) 2014 – Gamma spectroscopy system was replaced 10JUL2014. Gamma spectroscopy system hardware, detector cooling apparatus, software, electronics, nuclide identification libraries, and analytical test matrix components for test matrices were modified (NCR # 0739995). No analytical changes were noted due to the 2014 gamma spectroscopy system change.

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

Year	Indicator Location (pCi/m^3)	Control Location (pCi/m^3)
1979*	3.28E-3	1.04E-3
1980*	2.01E-3	1.10E-3
1981*	4.17E-3	6.27E-4
1982*	1.42E-3	2.48E-3
1983*	1.99E-3	2.01E-4
1984	3.17E-3	0.00E0
1985	3.15E-3	1.04E-3
1986	1.27E-2	6.10E-3
1987(1)	1.07E-2	6.60E-3
1988	0.00E0	0.00E0
1989	2.18E-2	0.00E0
1990	0.00E0	0.00E0
1991	0.00E0	0.00E0
1992	0.00E0	0.00E0
1993	0.00E0	0.00E0
1994	0.00E0	0.00E0
1995	0.00E0	0.00E0
1996	0.00E0	0.00E0
1997	0.00E0	0.00E0
1998	0.00E0	0.00E0
1999	0.00E0	0.00E0
2000	0.00E0	0.00E0
2001	0.00E0	0.00E0
2002	0.00E0	0.00E0
2003	0.00E0	0.00E0
2004	0.00E0	0.00E0
2005	0.00E0	0.00E0
2006	0.00E0	0.00E0
2007	0.00E0	0.00E0
2008	0.00E0	0.00E0
2009	0.00E0	0.00E0
2010	0.00E0	0.00E0
2011(2)	6.00E-2	5.46E-2
2012	0.00E0	0.00E0
2013	0.00E0	0.00E0
2014(3)	0.00E0	0.00E0
2015	0.00E0	0.00E0
2016	0.00E0	0.00E0
2017	0.00E0	0.00E0

0.00E0 indicates no detectable measurements

* Radioiodine and Particulate analyzed together.

(1) 1987 – Gamma spectroscopy system change

(2) 2011– Concentration affected by Fukushima Daiichi

(3) 2014 – Gamma spectroscopy system was replaced 10JUL2014. Gamma spectroscopy system hardware, detector cooling apparatus, software, electronics, nuclide identification libraries, and analytical test matrix components for test matrices were modified (NCR # 0739995). No analytical changes were noted due to the 2014 gamma spectroscopy system change.

3.2 DRINKING WATER

In 2017, 70 drinking water samples were analyzed for gross beta and gamma emitting radionuclides. Fifty-six samples were from the four indicator locations and 14 from the control location. These samples were composited to create 20 quarterly composite period samples for tritium analysis with additional tritium analyses performed on the final 2017 monthly composites for calendar reconciliation purposes (NCR # 02174937).

No detectable gamma activity attributable to MNS plant operation was found in drinking water samples in 2017 and has not been detected since 1987. K-40 observed in some drinking water samples is a naturally occurring radionuclide. Figure 3.2-1 and Table 3.2 shows highest annual mean gross beta concentrations for the indicator location and control location since preoperation. Gross beta analyses indicated 2.18 pCi/l at the location with the highest annual mean and 2.02 pCi/l at the control location.

Tritium was detected in 18 of the 20 indicator composite samples taken in 2017. The 2017 highest mean indicator tritium concentration from location 101 was 1046 pCi/liter, which is 5.23% 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 2017; therefore low-level iodine analysis is not required. Figure 3.2-2 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 3.2-1

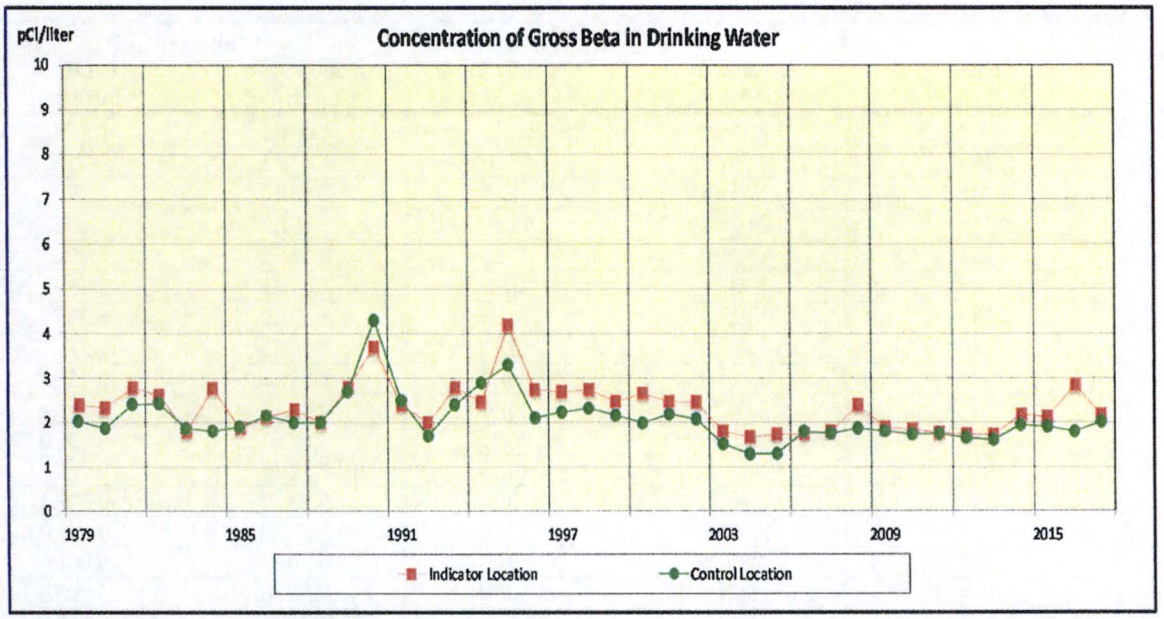


Figure 3.2-2

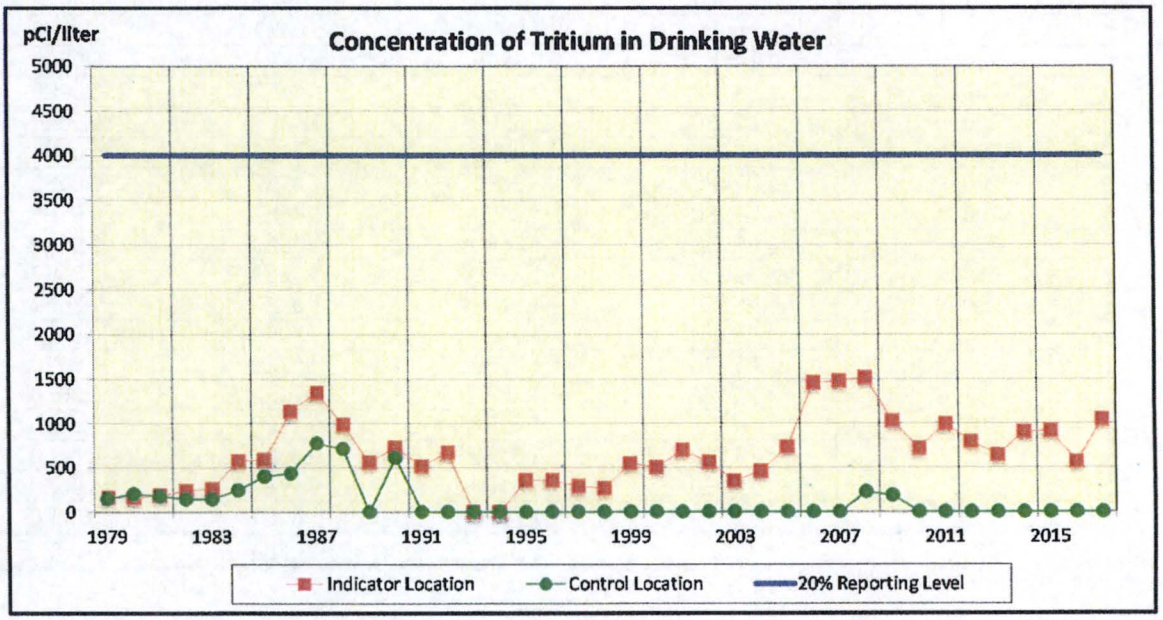


Table 3.2 Mean Concentrations of Radionuclides in Drinking Water

YEAR	Gross Beta (pCi/l)		Tritium (pCi/l)	
	Indicator Location	Control Location	Indicator Location	Control Location
1979	2.40E0	2.03E0	1.65E2	1.50E2
1980	2.34E0	1.87E0	1.63E2	2.05E2
1981	2.79E0	2.41E0	1.88E2	1.78E2
1982	2.62E0	2.43E0	2.43E2	1.45E2
1983	1.80E0	1.87E0	2.65E2	1.45E2
1984	2.78E0	1.81E0	5.77E2	2.45E2
1985	1.88E0	1.90E0	5.93E2	4.00E2
1986	2.13E0	2.15E0	1.14E3	4.37E2
1987	2.30E0	2.00E0	1.35E3	7.75E2
1988	2.00E0	2.00E0	9.92E2	7.11E2
1989	2.80E0	2.70E0	5.62E2	0.00E0
1990	3.70E0	4.30E0	7.32E2	6.11E2
1991	2.40E0	2.50E0	5.22E2	0.00E0
1992	2.00E0	1.70E0	6.73E2	0.00E0
1993	2.80E0	2.40E0	0.00E0	0.00E0
1994	2.47E0	2.90E0	0.00E0	0.00E0
1995	4.20E0	3.30E0	3.58E2	0.00E0
1996	2.75E0	2.11E0	3.60E2	0.00E0
1997	2.70E0	2.24E0	2.90E2	0.00E0
1998	2.75E0	2.33E0	2.68E2	0.00E0
1999	2.48E0	2.17E0	5.49E2	0.00E0
2000	2.66E0	1.99E0	5.04E2	0.00E0
2001	2.48E0	2.19E0	6.98E2	0.00E0
2002	2.47E0	2.08E0	5.64E2	0.00E0
2003	1.81E0	1.52E0	3.51E2	0.00E0
2004	1.68E0	1.29E0	4.61E2	0.00E0
2005	1.74E0	1.30E0	7.35E2	0.00E0
2006	1.75E0	1.80E0	1.46E3	0.00E0
2007	1.81E0	1.76E0	1.48E3	0.00E0
2008	2.40E0	1.87E0	1.52E3	2.26E2
2009	1.90E0	1.81E0	1.03E3	1.86E2
2010	1.85E0	1.74E0	7.20E2	0.00E0
2011	1.77E0	1.75E0	9.97E2	0.00E0
2012	1.74E0	1.66E0	7.95E2	0.00E0
2013	1.73E0	1.61E0	6.47E2	0.00E0
2014	2.18E0	1.95E0	9.07E2	0.00E0
2015	2.14E0	1.91E0	9.19E2	0.00E0
2016	2.85E0	1.80E0	5.69E2	0.00E0
2017	2.18E0	2.02E0	1.05E3	0.00E0

0.00E0 indicates no detectable measurements

3.3 SURFACE WATER

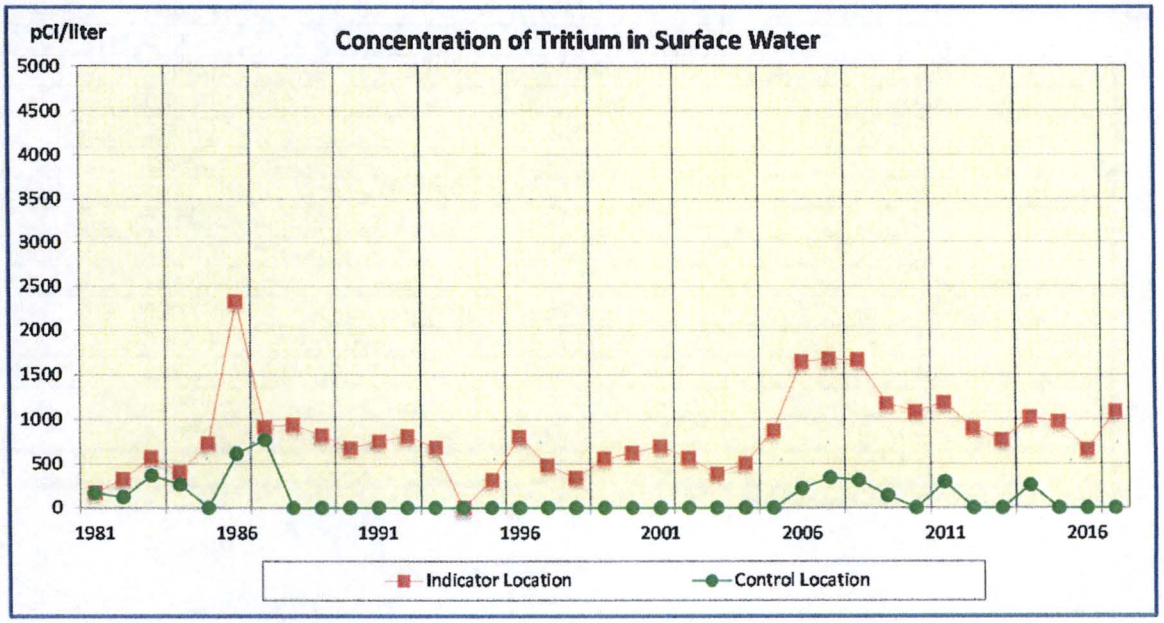
In 2017, 42 surface water samples were analyzed for gamma emitting radionuclides, 28 at the two indicator locations and 14 at the control location. The samples were composited to create 12 quarterly composite period samples for tritium analysis with additional tritium analyses performed on the final 2017 monthly composites for calendar reconciliation purposes (NCR # 02174937).

No detectable gamma activity attributable to MNS plant operation was found in surface water samples in 2017 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 ten indicator composite samples taken in 2017. Tritium was not detected in any of the five control location composite samples in 2017.

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

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

Figure 3.3



There is no reporting level for tritium in surface water

Table 3.3 Mean Concentrations of Tritium in Surface Water

YEAR	H-3 Indicator (pCi/l)	H-3 Control (pCi/l)
1979	1.85E2	1.66E2
1980	2.13E2	1.93E2
1981	1.75E2	1.70E2
1982	3.30E2	1.23E2
1983	5.75E2	3.67E2
1984	4.10E2	2.65E2
1985	7.33E2	0.00E0
1986	2.33E3	6.13E2
1987	9.20E2	7.70E2
1988	9.40E2	0.00E0
1989	8.22E2	0.00E0
1990	6.77E2	0.00E0
1991	7.53E2	0.00E0
1992	8.13E2	0.00E0
1993	6.85E2	0.00E0
1994	0.00E0	0.00E0
1995	3.15E2	0.00E0
1996	8.08E2	0.00E0
1997	4.85E2	0.00E0
1998	3.40E2	0.00E0
1999	5.60E2	0.00E0
2000	6.22E2	0.00E0
2001	6.98E2	0.00E0
2002	5.65E2	0.00E0
2003	3.91E2	0.00E0
2004	5.04E2	0.00E0
2005	8.74E2	0.00E0
2006	1.65E3	2.19E2
2007	1.68E3	3.42E2
2008	1.67E3	3.13E2
2009	1.18E3	1.41E2
2010	1.09E3	0.00E0
2011	1.19E3	2.94E2
2012	9.06E2	0.00E0
2013	7.73E2	0.00E0
2014	1.03E3	2.57E2
2015	9.79E2	0.00E0
2016	6.63E2	0.00E0
2017	1.09E3	0.00E0

0.00E0 indicates no detectable measurements

3.4 MILK

In 2017, 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 2017 and none were identified by the 2017 land use census.

There were no gamma emitting radionuclides due to MNS plant operations identified in milk samples in 2017. 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 2017, no reporting levels were approached.

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

Table 3.4 Mean Concentrations of Cs-137 in Milk

YEAR	Cs-137 Indicator (pCi/l)	Cs-137 Control (pCi/l)
1979	2.48E1	6.04E0
1980	1.72E1	4.13E0
1981	2.04E1	4.15E0
1982	1.21E1	5.20E0
1983	2.01E1	2.82E0
1984	1.48E1	2.56E0
1985	1.42E1	2.72E0
1986	3.74E0	3.45E0
1987[(1)]	5.20E0	8.60E0
1988	3.40E0	2.90E0
1989	6.00E0	5.60E0
1990	5.30E0	2.60E0
1991	0.00E0	0.00E0
1992	0.00E0	0.00E0
1993	0.00E0	0.00E0
1994	0.00E0	0.00E0
1995	0.00E0	0.00E0
1996	0.00E0	0.00E0
1997	0.00E0	0.00E0
1998	0.00E0	0.00E0
1999	0.00E0	0.00E0
2000	0.00E0	0.00E0
2001	0.00E0	0.00E0
2002	No Indicator Location	0.00E0
2003	No Indicator Location	0.00E0
2004	No Indicator Location	0.00E0
2005	No Indicator Location	0.00E0
2006	No Indicator Location	0.00E0
2007	No Indicator Location	0.00E0
2008	No Indicator Location	0.00E0
2009	No Indicator Location	0.00E0
2010	No Indicator Location	0.00E0
2011	No Indicator Location	0.00E0
2012	No Indicator Location	0.00E0
2013	No Indicator Location	0.00E0
2014[(2)]	No Indicator Location	0.00E0
2015	No Indicator Location	0.00E0
2016	No Indicator Location	0.00E0
2017	No Indicator Location	0.00E0

0.00E0 indicates no detectable measurements

(1) 1987 – Gamma spectroscopy system change

(2) 2014 – Gamma spectroscopy system was replaced 10JUL2014. Gamma spectroscopy system hardware, detector cooling apparatus, software, electronics, nuclide identification libraries, and analytical test matrix components for test matrices were modified (NCR # 0739995). No analytical changes were noted due to the 2014 gamma spectroscopy system change.

3.5 BROADLEAF VEGETATION

In 2017, 48 broadleaf vegetation samples were analyzed, 36 at the three indicator locations and twelve at the control location.

Gamma spectroscopy analysis detected Cs-137 in one indicator broadleaf vegetation sample during 2017. Cs-137 was detected at location 120 with a mean concentration of 30.3 pCi/kg which represents 1.51% of the reporting level. There were no gamma emitting radionuclides attributable to MNS plant operation identified in any control location broadleaf vegetation samples in 2017.

Cs-137 is the only radionuclide, other than naturally occurring, reported in vegetation samples since the change in gamma spectroscopy analysis systems in 1987. No airborne Cs-137 has been released from the plant since 1998.

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

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

Table 3.5 Mean Concentrations of Cs-137 in Broadleaf Vegetation

YEAR	Cs-137 Indicator (pCi/kg)	Cs-137 Control (pCi/kg)
1979	2.19E1	1.93E1
1980	2.30E1	1.92E1
1981	3.04E1	2.02E1
1982	2.46E1	1.22E1
1983	9.07E0	7.85E0
1984	1.02E1	1.05E1
1985	8.05E0	2.37E-2
1986	4.03E1	1.27E1
1987(1)	2.20E1	1.70E1
1988	3.90E1	3.40E1
1989	9.60E1	0.00E0
1990	4.00E1	0.00E0
1991	3.30E1	0.00E0
1992	4.90E1	0.00E0
1993	1.60E1	0.00E0
1994	0.00E0	0.00E0
1995	0.00E0	0.00E0
1996	0.00E0	0.00E0
1997	0.00E0	0.00E0
1998	0.00E0	2.69E1
1999	0.00E0	0.00E0
2000	0.00E0	0.00E0
2001	0.00E0	0.00E0
2002	0.00E0	0.00E0
2003	0.00E0	0.00E0
2004	0.00E0	0.00E0
2005	0.00E0	0.00E0
2006	2.98E1	0.00E0
2007	1.34E1	0.00E0
2008	0.00E0	0.00E0
2009	0.00E0	0.00E0
2010	0.00E0	0.00E0
2011(2)	2.29E1	0.00E0
2012	0.00E0	0.00E0
2013	0.00E0	0.00E0
2014(3)	0.00E0	0.00E0
2015	0.00E0	0.00E0
2016	1.22E1	0.00E0
2017	3.03E1	0.00E0

0.00E0 indicates no detectable measurements

(1) 1987 – Gamma spectroscopy system change

(2) 2011 – Concentration affected by Fukushima Daiichi

(3) 2014 – Gamma spectroscopy system was replaced 10JUL2014. Gamma spectroscopy system hardware, detector cooling apparatus, software, electronics, nuclide identification libraries, and analytical test matrix components for test matrices were modified (NCR # 0739995). No analytical changes were noted due to the 2014 gamma spectroscopy system change.

3.6 FOOD PRODUCTS

In 2017, six 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 2017, no reporting levels were approached.

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

Table 3.6 Mean Concentrations of Cs-137 in Food Products

YEAR	Cs-137 Indicator (pCi/kg)
1979	2.19E1
1980	2.30E1
1981	3.04E1
1982	2.46E1
1983	9.07E0
1984	8.45E0
1985	7.99E0
1986	2.15E1
1987[1]	2.90E1
1988	0.00E0
1989	0.00E0
1990	0.00E0
1991	0.00E0
1992	0.00E0
1993	0.00E0
1994	0.00E0
1995	0.00E0
1996	0.00E0
1997	0.00E0
1998	0.00E0
1999	0.00E0
2000	0.00E0
2001	0.00E0
2002	0.00E0
2003	0.00E0
2004	0.00E0
2005	0.00E0
2006	0.00E0
2007	0.00E0
2008	0.00E0
2009	0.00E0
2010	0.00E0
2011[2]	3.06E1
2012	0.00E0
2013	0.00E0
2014[3]	0.00E0
2015	0.00E0
2016	0.00E0
2017	0.00E0

0.00E0 indicates no detectable measurements

(1) 1987 – Gamma spectroscopy system change

(2) 2011 – Concentration affected by Fukushima Daiichi

(3) 2014 – Gamma spectroscopy system was replaced 10JUL2014. Gamma spectroscopy system hardware, detector cooling apparatus, software, electronics, nuclide identification libraries, and analytical test matrix components for test matrices were modified (NCR # 0739995). No analytical changes were noted due to the 2014 gamma spectroscopy system change.

3.7 FISH

In 2017, 12 fish samples were analyzed for gamma emitting radionuclides, six at the indicator location and six at the control location.

Gamma spectroscopy analysis indicated no gamma emitting radionuclides attributable to MNS plant operation identified in any indicator or control location fish samples in 2017.

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

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

Figure 3.7

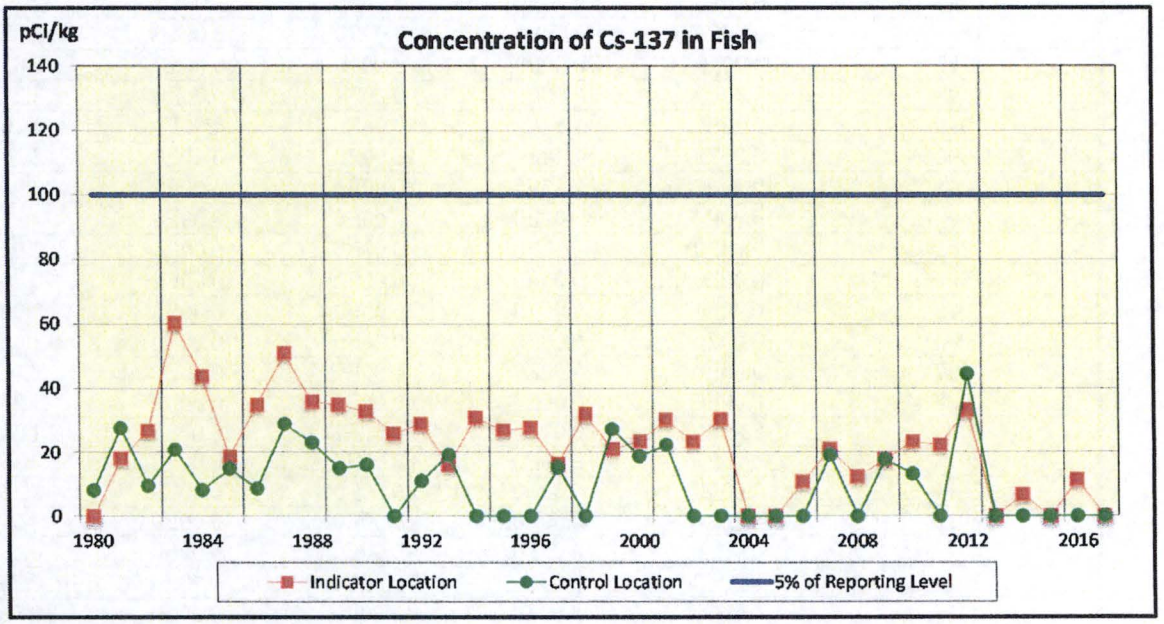


Table 3.7 Mean Concentrations of Radionuclides in Fish (pCi/kg)

YEAR	Mn-54 Indicator	Co-58 Indicator	Co-60 Indicator	Cs-134 Indicator	Cs-137 Indicator
1980	-1.97E1	8.36E0	-2.25E1	-2.70E1	-4.13E0
1981	-2.71E0	-2.98E0	-2.65E0	-1.99E0	1.80E1
1982	-3.83E0	8.16E0	-4.34E-1	-8.22E-1	2.69E1
1983	-2.60E0	2.60E1	1.11E1	-1.32E0	6.03E1
1984	3.61E0	1.45E2	2.82E1	3.11E1	4.38E1
1985	2.53E-1	7.19E0	1.72E1	-1.56E0	1.86E1
1986	1.03E0	3.17E1	2.96E1	1.67E1	3.49E1
1987[1]	0.00E0	2.71E2	1.25E2	2.60E1	5.10E1
1988	1.20E1	7.70E1	0.00E0	2.70E1	3.60E1
1989	9.00E1	4.05E2	2.99E2	1.10E1	3.50E1
1990	0.00E0	5.60E1	4.10E1	0.00E0	3.30E1
1991	6.20E0	1.40E1	6.50E1	5.90E0	2.60E1
1992	0.00E0	0.00E0	0.00E0	0.00E0	2.90E1
1993	0.00E0	8.20E1	1.30E1	0.00E0	1.60E1
1994	0.00E0	0.00E0	0.00E0	0.00E0	3.10E1
1995	0.00E0	0.00E0	0.00E0	0.00E0	2.70E1
1996	0.00E0	0.00E0	0.00E0	0.00E0	2.78E1
1997	0.00E0	0.00E0	0.00E0	0.00E0	1.62E1
1998	0.00E0	0.00E0	0.00E0	0.00E0	3.21E1
1999	0.00E0	3.53E1	0.00E0	0.00E0	2.10E1
2000	0.00E0	4.28E1	0.00E0	0.00E0	2.34E1
2001	0.00E0	1.32E1	0.00E0	0.00E0	3.04E1
2002	0.00E0	0.00E0	0.00E0	0.00E0	2.33E1
2003	0.00E0	0.00E0	0.00E0	0.00E0	3.05E1
2004	0.00E0	0.00E0	0.00E0	0.00E0	0.00E0
2005	0.00E0	0.00E0	0.00E0	0.00E0	0.00E0
2006	0.00E0	0.00E0	0.00E0	0.00E0	1.08E1
2007	0.00E0	0.00E0	0.00E0	0.00E0	2.11E1
2008	0.00E0	0.00E0	0.00E0	0.00E0	1.24E1
2009	0.00E0	0.00E0	0.00E0	0.00E0	1.76E1
2010	0.00E0	0.00E0	0.00E0	0.00E0	2.33E1
2011	0.00E0	0.00E0	0.00E0	0.00E0	2.23E1
2012	0.00E0	0.00E0	0.00E0	0.00E0	3.34E1
2013	0.00E0	0.00E0	0.00E0	0.00E0	0.00E0
2014[2]	0.00E0	0.00E0	0.00E0	0.00E0	6.75E0
2015	0.00E0	0.00E0	0.00E0	0.00E0	0.00E0
2016	0.00E0	0.00E0	0.00E0	0.00E0	1.14E1
2017	0.00E0	0.00E0	0.00E0	0.00E0	0.00E0

0.00E0 indicates no detectable measurements

(1) 1987 – Gamma spectroscopy system change

(2) 2014 – Gamma spectroscopy system was replaced 10JUL2014. Gamma spectroscopy system hardware, detector cooling apparatus, software, electronics, nuclide identification libraries, and analytical test matrix components for test matrices were modified (NCR # 0739995). No analytical changes were noted due to the 2014 gamma spectroscopy system change.

3.8 SHORELINE SEDIMENT

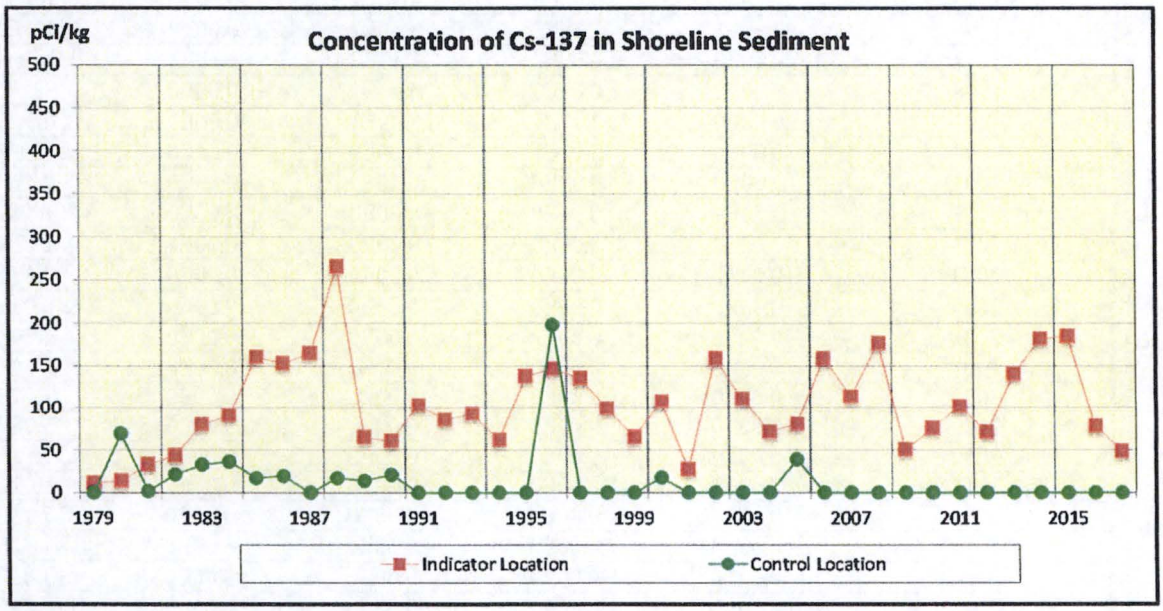
In 2017, six shoreline sediment samples were analyzed, four from two indicator locations and two at the control location.

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 48.7 pCi/kg. Cs-137 was not detected in any of the control location samples.

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

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

Figure 3.8



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

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

YEAR	Mn-54 Indicator	Co-58 Indicator	Co-60 Indicator	Cs-134 Indicator	Cs-137 Indicator
1979	-1.07E1	2.25E1	-6.50E0	0.00E0	1.20E1
1980	1.06E1	-8.74E0	2.36E1	-3.53E0	1.44E1
1981	2.13E1	1.20E1	8.21E0	3.97E1	3.36E1
1982	5.38E1	1.66E1	-1.69E0	7.67E1	4.40E1
1983	4.40E0	3.43E1	2.12E1	7.65E1	8.02E1
1984	1.19E1	7.11E1	3.04E1	3.34E1	9.13E1
1985	4.77E0	1.46E1	9.20E0	2.02E1	1.61E2
1986	1.37E1	1.02E1	1.16E1	6.35E1	1.53E2
1987[1]	0.00E0	1.06E2	2.10E1	4.20E1	1.65E2
1988	6.50E0	9.20E1	1.20E1	9.10E0	2.66E2
1989	2.90E1	3.80E1	2.90E1	5.30E1	6.50E1
1990	3.80E1	2.70E1	1.68E2	0.00E0	6.10E1
1991	2.80E1	5.30E1	1.31E2	0.00E0	1.03E2
1992	9.40E0	0.00E0	5.10E1	9.20E0	8.60E1
1993	0.00E0	2.20E1	8.60E1	0.00E0	9.30E1
1994	4.10E1	0.00E0	0.00E0	0.00E0	8.00E1
1995	1.70E1	0.00E0	2.30E1	0.00E0	1.38E2
1996	2.90E1	1.78E1	3.50E1	0.00E0	1.47E2
1997	0.00E0	0.00E0	1.11E2	3.10E1	1.36E2
1998	0.00E0	0.00E0	5.21E1	0.00E0	9.97E1
1999	0.00E0	2.47E1	8.49E1	0.00E0	6.51E1
2000	0.00E0	3.04E1	0.00E0	0.00E0	1.08E2
2001	0.00E0	0.00E0	0.00E0	0.00E0	2.77E1
2002	2.24E1	0.00E0	0.00E0	0.00E0	1.59E2
2003	0.00E0	0.00E0	0.00E0	0.00E0	1.11E2
2004	0.00E0	0.00E0	0.00E0	0.00E0	7.17E1
2005	0.00E0	0.00E0	0.00E0	0.00E0	8.08E1
2006	0.00E0	0.00E0	0.00E0	0.00E0	1.59E2
2007	0.00E0	0.00E0	0.00E0	0.00E0	1.14E2
2008	0.00E0	0.00E0	0.00E0	0.00E0	1.77E2
2009	0.00E0	0.00E0	0.00E0	0.00E0	5.08E1
2010	0.00E0	0.00E0	0.00E0	0.00E0	7.58E1
2011	0.00E0	0.00E0	0.00E0	0.00E0	1.02E2
2012	0.00E0	0.00E0	0.00E0	0.00E0	7.13E1
2013	0.00E0	0.00E0	0.00E0	0.00E0	1.41E2
2014[2]	0.00E0	0.00E0	0.00E0	0.00E0	1.82E2
2015	0.00E0	0.00E0	0.00E0	0.00E0	1.85E2
2016	0.00E0	0.00E0	0.00E0	0.00E0	7.84E1
2017	0.00E0	0.00E0	0.00E0	0.00E0	4.87E1

0.00E0 indicates no detectable measurements

(1) 1987 – Gamma spectroscopy system change

(2) 2014 – Gamma spectroscopy system was replaced 10JUL2014. Gamma spectroscopy system hardware, detector cooling apparatus, software, electronics, nuclide identification libraries, and analytical test matrix components for test matrices were modified (NCR # 0739995). No analytical changes were noted due to the 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 2017, 163 total TLDs were analyzed, 159 at indicator locations and 4 at the control location. TLDs are collected and analyzed quarterly. Transit and laboratory background dose is determined and subtracted from gross field readings as required by ANSI N545-1975. Based on Appendix B TLD data, the highest annual total dose was 96.9 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 2017 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 2017 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 2017, therefor no evaluation of dose to a member of the public from direct or scattered radiation was performed. Table 3.9-B summarizes the data.

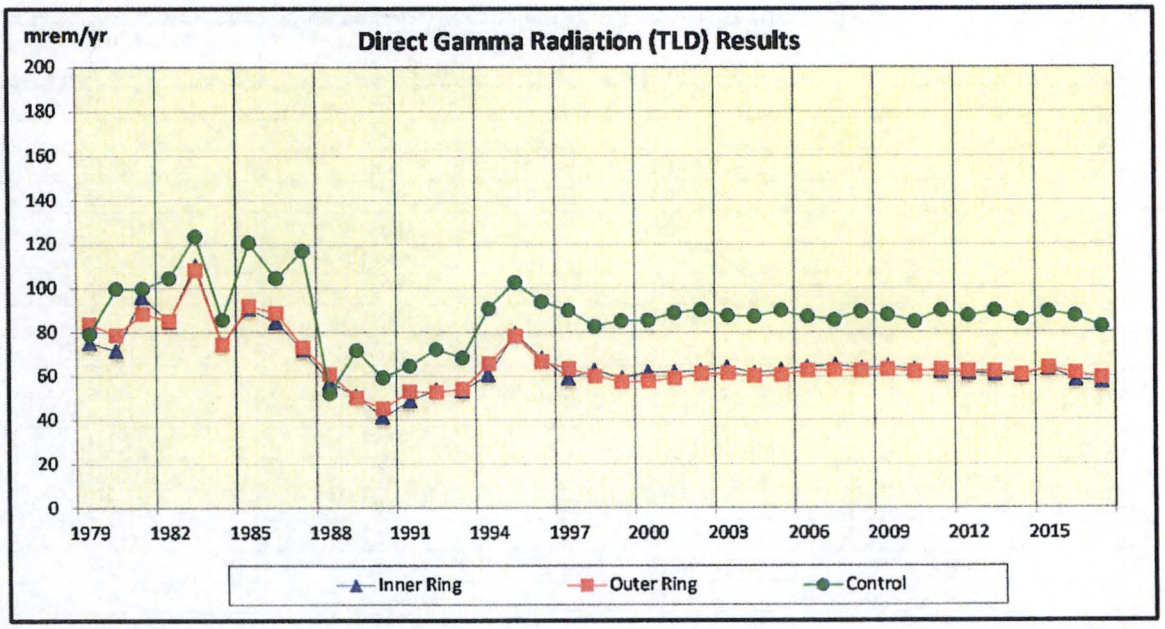
A TLD intercomparison program is conducted as part of the quality assurance program. Results of this program are included in section 5.7.

3.9.2 ISFSI

The McGuire ISFSI began operation in 2000. It is located approximately 0.15 miles west of station center in a secured area specifically constructed to provide dry storage for spent nuclear fuel. The ISFSI is situated at a lower elevation compared to other structures in the protected area. Exposure from direct radiation north of the ISFSI is shielded by the berm on the south boundary of Lake Norman. Exposure from direct radiation at the exclusion area boundary west of the ISFSI is shielded by the decrease in elevation at the ISFSI to the river bank below Cowan's Ford Dam. These geographic features lessen the potential dose to a member of the public in accessible areas within the exclusion area boundary. The ISFSI employs the multiple vertical storage designs. Irradiated fuel assemblies are confined, protected, and shielded by reinforced concrete modules. All designs used are completely passive and designed to provide radiation shielding and safe confinement for a range of accident conditions and natural events. They each use a passive natural circulation ventilation system to remove decay heat from the modules. No radiological liquid or gaseous effluents are expected from the passive storage provided by the ISFSI. Therefore any dose to offsite locations would be from direct and scattered gamma radiation.

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

Figure 3.9



There is no reporting level for Direct Radiation (TLD)

Table 3.9-A Direct Gamma Radiation (TLD) Results[(1)]

YEAR	Inner Ring Average (mrem/yr)	Outer Ring Average (mrem/yr)	Control (mrem/yr)
1979	7.51E1	8.38E1	7.90E1
1980	7.16E1†	7.88E1†	9.98E1†
1981	9.60E1	8.84E1	9.98E1
1982	8.50E1	8.52E1	1.05E2
1983	1.10E2	1.08E2	1.24E2
1984	7.46E1	7.44E1	8.57E1
1985	9.06E1	9.21E1	1.21E2
1986	8.46E1	8.88E1	1.05E2
1987	7.20E1	7.32E1	1.17E2
1988	5.73E1	6.10E1	5.21E1
1989	5.10E1	5.04E1	7.17E1
1990	4.12E1	4.54E1	5.94E1
1991	4.88E1	5.31E1	6.46E1
1992	5.37E1	5.27E1	7.22E1
1993	5.33E1	5.42E1	6.84E1
1994	6.08E1	6.58E1	9.07E1
1995	7.94E1	7.84E1	1.03E2
1996	6.82E1	6.67E1	9.39E1
1997	5.91E1	6.35E1	8.98E1
1998	6.26E1	6.00E1	8.26E1
1999	5.92E1	5.75E1	8.51E1
2000	6.18E1	5.77E1	8.52E1
2001	6.16E1	5.91E1	8.86E1
2002	6.24E1	6.11E1	9.01E1
2003	6.41E1	6.13E1	8.74E1
2004	6.14E1	6.02E1	8.70E1
2005	6.29E1	6.06E1	8.97E1
2006	6.41E1	6.25E1	8.70E1
2007	6.50E1	6.27E1	8.55E1
2008	6.36E1	6.25E1	8.93E1
2009	6.43E1	6.31E1	8.78E1
2010	6.30E1	6.20E1	8.47E1
2011	6.18E1	6.32E1	8.97E1
2012	6.13E1	6.24E1	8.74E1
2013	6.09E1	6.23E1	8.97E1
2014	6.03E1	6.08E1	8.57E1
2015	6.35E1	6.40E1	8.93E1
2016	5.84E1	6.14E1	8.73E1
2017	5.74E1	5.94E1	8.25E1

† 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 2017 Investigation Level

McGuire 2017 MDD_Q: 6	McGuire 2017 MDD_A: 11

	Quarterly (mrem)									Annual(mrem)		
Location	B_Q	M_QQ1	M_QQ2	M_QQ3	M_QQ4	L_QQ1	L_QQ2	L_QQ3	L_QQ4	B_A	M_A^*	L_A
143	15.9	18.4	13.4	14.6	15.8	ND	ND	ND	ND	65.0	62.2	ND
144	14.3	16.0	13.3	12.4	12.0	ND	ND	ND	ND	57.5	53.6	ND
145	14.5	17.9	12.8	12.4	11.9	ND	ND	ND	ND	58.5	54.9	ND
146	13.6	16.8	13.1	12.3	11.4	ND	ND	ND	ND	54.9	53.6	ND
147	14.4	15.0	12.5	13.0	12.3	ND	ND	ND	ND	57.7	52.8	ND
148	12.6	14.3	12.7	11.4	12.0	ND	ND	ND	ND	51.2	50.4	ND
149	12.1	12.6	11.8	10.3	10.9	ND	ND	ND	ND	48.7	45.6	ND
151	14.6	14.6	11.5	13.5	12.7	ND	ND	ND	ND	59.2	52.3	ND
152	14.1	15.7	12.5	11.3	12.9	ND	ND	ND	ND	56.9	52.4	ND
153	18.7	19.6	15.1	16.6	15.2	ND	ND	ND	ND	75.0	66.5	ND
154	20.7	20.3	15.7	15.6	15.7	ND	ND	ND	ND	82.8	67.3	ND
156	16.3	17.8	13.8	14.3	14.0	ND	ND	ND	ND	68.3	59.9	ND
157	14.8	17.1	15.0	13.8	12.0	ND	ND	ND	ND	60.3	57.9	ND
158	14.2	16.5	12.0	11.7	14.0	ND	ND	ND	ND	57.8	54.2	ND
159	20.7	17.3	14.0	14.4	14.2	ND	ND	ND	ND	86.0	59.9	ND
160	16.1	18.5	14.6	---	12.8	ND	ND	ND	ND	65.4	61.3	ND
161	15.3	16.6	12.6	12.8	13.6	ND	ND	ND	ND	62.1	55.7	ND
162	11.4	13.3	9.8	10.2	11.0	ND	ND	ND	ND	45.8	44.3	ND
163	10.9	13.1	9.5	8.7	9.8	ND	ND	ND	ND	44.4	41.1	ND
164	10.9	11.9	10.1	8.9	9.1	ND	ND	ND	ND	43.7	40.0	ND
165	18.3	21.4	17.7	16.0	16.5	ND	ND	ND	ND	74.5	71.5	ND
166	17.1	20.4	15.3	15.1	16.5	ND	ND	ND	ND	68.4	67.4	ND
167	18.3	19.9	17.3	17.2	16.7	ND	ND	ND	ND	73.2	71.1	ND
168	15.3	17.5	13.6	13.4	14.6	ND	ND	ND	ND	59.9	59.1	ND
169	13.7	16.3	12.0	12.5	11.4	ND	ND	ND	ND	55.4	52.3	ND
170	23.3	23.9	22.0	23.5	21.9	ND	ND	ND	ND	96.3	91.3	ND
171	15.9	18.0	14.4	18.1	17.1	ND	ND	ND	ND	63.9	67.5	ND
172	15.2	16.5	11.7	12.0	13.1	ND	ND	ND	ND	62.9	53.3	ND
173	23.6	25.8	20.8	20.7	22.7	ND	ND	ND	ND	94.4	90.1	ND
174	21.4	25.4	19.8	19.2	20.4	ND	ND	ND	ND	87.5	84.7	ND
175	21.7	24.6	19.4	19.8	18.6	ND	ND	ND	ND	88.9	82.4	ND
177	13.3	14.2	11.2	11.5	11.9	ND	ND	ND	ND	53.2	48.7	ND
178	14.1	17.6	12.3	12.2	13.8	ND	ND	ND	ND	56.5	55.8	ND
180	25.5	26.4	20.8	21.4	28.3	ND	ND	ND	ND	102.0	96.9	ND
181	15.7	18.4	13.4	13.4	14.7	ND	ND	ND	ND	63.7	59.9	ND
182	15.6	19.0	15.4	15.0	15.0	ND	ND	ND	ND	62.3	64.4	ND
186	16.5	16.9	14.9	12.7	15.1	ND	ND	ND	ND	66.6	59.7	ND
187	16.6	18.8	15.9	14.3	13.7	ND	ND	ND	ND	68.0	62.6	ND
189	15.2	16.6	13.3	12.7	13.5	ND	ND	ND	ND	60.5	56.1	ND
190	19.5	20.2	15.9	16.6	17.3	ND	ND	ND	ND	78.0	70.0	ND
191	15.9	17.7	13.8	14.5	14.6	ND	ND	ND	ND	63.1	60.6	ND

* M_A determined by normalizing available quarterly data to 4 full quarters

' --- ' indicates no data resulting from missing TLD, erroneous TLD reading, or omitted after investigation [Note]

Note: Data may be omitted after investigation considering the following: (1) Other TLD locations' data from upwind, downwind, and adjacent sectors (2) Review of documentation on location's characteristics, geography, topography, etc. (3) Comparison with other radiological data (i.e. gaseous effluent releases, direct radiation reports, surveys, dose calculations, Area TLDs, etc.).

Table 3.9-B definition of terms

- MDD_Q = minimum differential dose, quarterly, 3 times 90th percentile s_Q determined from analysis in mrem
- MDD_A = minimum differential dose, annual, 3 times 90th percentile s_A determined from analysis in mrem
- B_Q = Quarterly baseline (mrem)
- M_Q = location's 91 day standard quarter normalized dose (mrem per standard quarter)
- L_Q = quarterly investigation level dose (mrem)
- B_A = baseline background dose (mrem) (annual)
- M_A = annual monitoring data - Ma 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 6/6 – 6/8/2017 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 2017 census, no new residences (nearer to the plant), no new irrigated gardens (superior to existing gardens) or milk locations were identified. The nearest residence is located in the East sector at 0.52 miles. No environmental program changes were required as a result of the 2017 land use census.

Table 3.10 McGuire 2017 Land Use Census Results

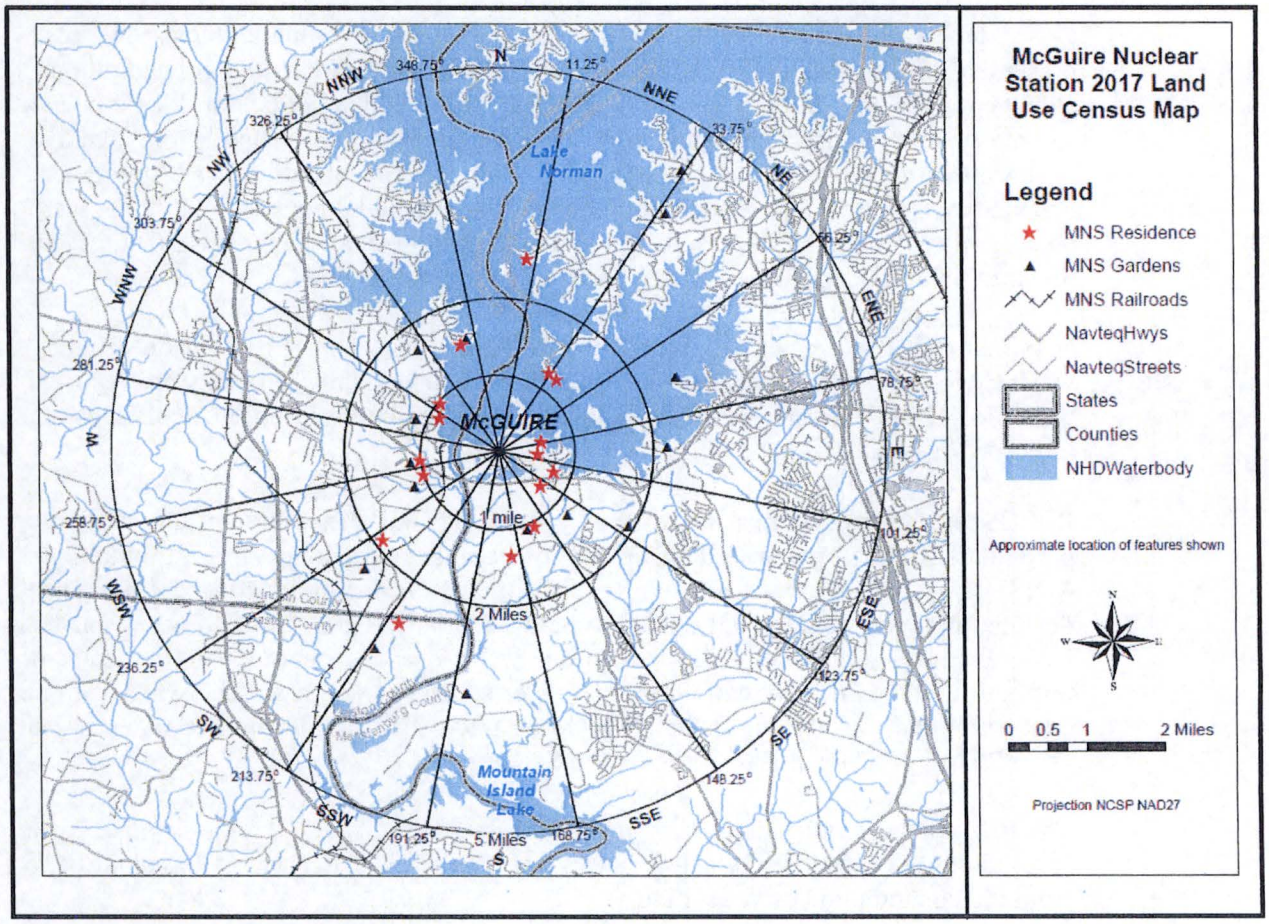
Performed 6/6-6/8/2017
Nearest Pathways (Miles)

SECTOR	RESIDENCE		GARDEN		MILK ANIMAL	
	2016	2017	2016	2017	2016	2017
North	2.53	2.53	3.03	---*	---	---
North-Northeast	1.23	1.23	1.40	4.38*	---	---
Northeast	1.21	1.21	2.38	3.80*	---	---
East-Northeast	0.56	0.56	1.98	2.50*	---	---
East	0.52	0.50*	2.11	2.11	---	---
East-Southeast	0.65	0.65	1.09	1.93*	---	---
Southeast	0.67	0.67	2.10	1.20*	---	---
South-Southeast	1.06	1.06	1.06	1.06	---	---
South	1.35	1.35	3.14	3.19*	---	---
South-Southwest	2.56	2.56	2.94	2.94	---	---
Southwest	1.85	1.23	1.88	2.31*	---	---
West-Southwest	1.01	1.01	1.10	1.10	---	---
West	1.15	1.15	1.23	1.15*	---	---
West-Northwest	0.88	0.88	1.15	1.15	---	---
Northwest	0.95	0.95	1.68	1.68	---	---
North-Northwest	1.48	1.48	1.52	1.52	---	---

NOTE: Sector and distances were determined by Global Positioning System

*** Represents a change from the previous year**

Figure 3.10


McGuire Nuclear Station 2017 Land Use Census Map
Legend
MNS Residence
MNS Gardens
MNS Railroads
NavteqHwys
NavteqStreets
States
Counties
NHDWaterbody
Approximate location of features shown
0 0.5 1 2 Miles
Projection NCSP NAD27
McGUIRE
Lake Norman
Mountain Island Lake
1 mile
2 Miles
5 Miles
N
NNE
NE
ENE
E
ESE
SE
SSE
S
SSW
SW
WSW
W
WNW
NW
NNW
348.75°
11.25°
33.75°
56.25°
78.75°
101.25°
123.75°
148.25°
168.75°
191.25°
213.75°
236.25°
258.75°
281.25°
303.75°
326.25°

4.0 EVALUATION OF DOSE

4.1 DOSE FROM ENVIRONMENTAL MEASUREMENTS

Annual doses to maximum exposed individuals were estimated based on measured concentrations of radionuclides in 2017 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, broadleaf vegetation, 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, or milk 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 2017 was 2.58E-1 mrem to the child bone from the consumption of vegetation.

4.2 ESTIMATED DOSE FROM RELEASES

Throughout the year, dose estimates were calculated based on actual 2017 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 2017 environmental sample results was 1.09E-1 mrem to the child liver, total body, thyroid, kidney, lung, and GI-LLI. The maximum total organ dose of 2.13E-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 7.00E-1 mrem to the child bone, with C-14 being the primary dose contributor. The maximum environmental dose was 2.58E-1 mrem to the child bone from the vegetation pathway.

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

TABLE 4.1-A

MCGUIRE NUCLEAR STATION
2017 ENVIRONMENTAL AND EFFLUENT DOSE COMPARISON

LIQUID RELEASE PATHWAY

Organ	Environmental or Effluent Data	Critical Age [1]	Critical Pathway [2]	Location	Maximum Dose [3] (mrem)
Skin	Environmental	Teen	Shoreline Sediment	130 (0.52 mi SW)	1.28E-04
Skin	Effluent	Teen	Shoreline Sediment	Discharge Pt.	4.91E-04
Bone	Environmental	-	-	-	-
Bone	Effluent	Child	Fresh Water Fish	Discharge Pt.	1.15E-02
Liver	Environmental	Child	Drinking Water	101 (3.31 mi E)	1.09E-01
Liver	Effluent	Child	Drinking Water	3.31 mi E	2.13E-01
T. Body	Environmental	Child	Drinking Water	101 (3.31 mi E)	1.09E-01
T. Body	Effluent	Child	Drinking Water	3.31 mi E	2.06E-01
Thyroid	Environmental	Child	Drinking Water	101 (3.31 mi E)	1.09E-01
Thyroid	Effluent	Child	Drinking Water	3.31 mi E	2.04E-01
Kidney	Environmental	Child	Drinking Water	101 (3.31 mi E)	1.09E-01
Kidney	Effluent	Child	Drinking Water	3.31 mi E	2.07E-01
Lung	Environmental	Child	Drinking Water	101 (3.31 mi E)	1.09E-01
Lung	Effluent	Child	Drinking Water	3.31 mi E	2.05E-01
GI-LLI	Environmental	Child	Drinking Water	101 (3.31 mi E)	1.09E-01
GI-LLI	Effluent	Child	Drinking Water	3.31 mi E	2.05E-01

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

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

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

GASEOUS RELEASE PATHWAY

IODINE, PARTICULATE, and TRITIUM

Organ	Environmental or Effluent Data	Critical Age [1]	Critical Pathway [2]	Location	Maximum Dose [3] (mrem)
Skin	Environmental	-	-	-	-
Skin	Effluent	All	Ground Plane	0.5 mi. ENE	1.71E-04
Bone	Environmental	Child	Vegetation	120 (0.46 mi NNE)	2.58E-01
Bone	Effluent	Child	Inhalation	0.5 mi. ENE	7.00E-01
Liver	Environmental	Child	Vegetation	120 (0.46 mi NNE)	2.47E-01
Liver	Effluent	Child	Inhalation	0.5 mi. ENE	2.33E-01
T. Body	Environmental	Adult	Vegetation	120 (0.46 mi NNE)	1.38E-01
T. Body	Effluent	Child	Inhalation	0.5 mi. ENE	2.33E-01
Thyroid	Environmental	-	-	-	-
Thyroid	Effluent	Child	Inhalation	0.5 mi. ENE	2.33E-01
Kidney	Environmental	Child	Vegetation	120 (0.46 mi NNE)	8.04E-02
Kidney	Effluent	Child	Inhalation	0.5 mi. ENE	2.33E-01
Lung	Environmental	Child	Vegetation	120 (0.46 mi NNE)	2.89E-02
Lung	Effluent	Child	Inhalation	0.5 mi. ENE	2.33E-01
GI-LLI	Environmental	Adult	Vegetation	120 (0.46 mi NNE)	4.09E-03
GI-LLI	Effluent	Child	Inhalation	0.5 mi. ENE	2.33E-01

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

(2) Critial 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 2017 based on Environmental Measurements (mrem) for McGuire Nuclear Station

Age	Sample Medium	Bone	Liver	T. Body	Thyroid	Kidney	Lung	GI-LLI	Skin
Infant	Airborne	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
	Drinking Water	0.00E+00	1.06E-01	1.06E-01	1.06E-01	1.06E-01	1.06E-01	1.06E-01	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	1.06E-01	1.06E-01	1.06E-01	1.06E-01	1.06E-01	1.06E-01	0.00E+00
Child	Airborne	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
	Drinking Water	0.00E+00	1.08E-01	1.08E-01	1.08E-01	1.08E-01	1.08E-01	1.08E-01	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	2.58E-01	2.47E-01	3.64E-02	0.00E+00	8.04E-02	2.89E-02	1.54E-03	0.00E+00
	Fish	0.00E+00	1.38E-03	1.38E-03	1.38E-03	1.38E-03	1.38E-03	1.38E-03	0.00E+00
	Shoreline Sediment	0.00E+00	0.00E+00	2.29E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	2.67E-05
	TOTAL	2.58E-01	3.56E-01	1.46E-01	1.09E-01	1.90E-01	1.38E-01	1.11E-01	2.67E-05
Teen	Airborne	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
	Drinking Water	0.00E+00	5.65E-02	5.65E-02	5.65E-02	5.65E-02	5.65E-02	5.65E-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	1.43E-01	1.90E-01	6.60E-02	0.00E+00	6.45E-02	2.51E-02	2.70E-03	0.00E+00
	Fish	0.00E+00	1.67E-03	1.67E-03	1.67E-03	1.67E-03	1.67E-03	1.67E-03	0.00E+00
	Shoreline Sediment	0.00E+00	0.00E+00	1.10E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00	1.28E-04
	TOTAL	1.43E-01	2.48E-01	1.24E-01	5.82E-02	1.23E-01	8.33E-02	6.09E-02	1.28E-04
Adult	Airborne	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
	Drinking Water	0.00E+00	8.02E-02	8.02E-02	8.02E-02	8.02E-02	8.02E-02	8.02E-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	1.55E-01	2.11E-01	1.38E-01	0.00E+00	7.18E-02	2.39E-02	4.09E-03	0.00E+00
	Fish	0.00E+00	2.17E-03	2.17E-03	2.17E-03	2.17E-03	2.17E-03	2.17E-03	0.00E+00
	Shoreline Sediment	0.00E+00	0.00E+00	1.96E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	2.29E-05
	TOTAL	1.55E-01	2.93E-01	2.20E-01	8.24E-02	1.54E-01	1.06E-01	8.65E-02	2.29E-05

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

McGuire Nuclear Station
Dose from Drinking Water Pathway for 2017 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

	Ingestion Dose Factor							Highest Annual Net Mean Concentration		Dose (mrem)					
Radionuclide	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	1046	0.00E+00	1.06E-01	1.06E-01	1.06E-01	1.06E-01	1.06E-01	1.06E-01
						Dose Commitment (mrem) =				0.00E+00	1.06E-01	1.06E-01	1.06E-01	1.06E-01	1.06E-01	1.06E-01

McGuire Nuclear Station
Dose from Drinking Water Pathway for 2017 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

	Ingestion Dose Factor							Highest Annual Net Mean Concentration		Dose (mrem)						
Radionuclide	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	1046	0.00E+00	1.08E-01	1.08E-01	1.08E-01	1.08E-01	1.08E-01	1.08E-01
						Dose Commitment (mrem) =				0.00E+00	1.08E-01	1.08E-01	1.08E-01	1.08E-01	1.08E-01	1.08E-01

McGuire Nuclear Station
Dose from Broadleaf Vegetation Pathway for 2017 Data
Maximum Exposed Child

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

Usage (intake in one year) = **26 kg**

	Ingestion Dose Factor							Highest Annual Net Mean Concentration		Dose (mrem)						
Radionuclide	Bone	Liver	T. Body	Thyroid	Kidney	Lung	GI-LLI	Indicator Location	Food (pCi/kg)	Bone	Liver	T. Body	Thyroid	Kidney	Lung	GI-LLI
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	120	30.3	2.58E-01	2.47E-01	3.64E-02	0.00E+00	8.04E-02	2.89E-02	1.54E-03
						Dose Commitment (mrem) =				2.58E-01	2.47E-01	3.64E-02	0.00E+00	8.04E-02	2.89E-02	1.54E-03

McGuire Nuclear Station
Dose from Fish Pathway for 2017 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 = 1093 pCi/l x 0.9 = 984 pCi/kg
Usage (intake in one year) = 6.9 kg

								Highest Annual Net Mean Concentration								
	Ingestion Dose Factor									Dose (mrem)						
Radionuclide	Bone	Liver	T. Body	Thyroid	Kidney	Lung	GI-LLI	Indicator Location	Fish (pCi/kg)	Bone	Liver	T. Body	Thyroid	Kidney	Lung	GI-LLI
Mn-54	NO DATA	1.07E-05	2.85E-06	NO DATA	3.00E-06	NO DATA	8.98E-06	ALL	0.00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Co-58	NO DATA	1.80E-06	5.51E-06	NO DATA	NO DATA	NO DATA	1.05E-05	ALL	0.00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Fe-59	1.65E-05	2.67E-05	1.33E-05	NO DATA	NO DATA	7.74E-06	2.78E-05	ALL	0.00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
C0-60	NO DATA	5.29E-06	1.56E-05	NO DATA	NO DATA	NO DATA	2.93E-05	ALL	0.00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Zn-65	1.37E-05	3.65E-05	2.27E-05	NO DATA	2.30E-05	NO DATA	6.41E-06	ALL	0.00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Cs-134	2.34E-04	3.84E-04	8.10E-05	NO DATA	1.19E-04	4.27E-05	2.07E-06	ALL	0.00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Cs-137	3.27E-04	3.13E-04	4.62E-05	NO DATA	1.02E-04	3.67E-05	1.96E-06	129	0.00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
H-3	NO DATA	2.03E-07	2.03E-07	2.03E-07	2.03E-07	2.03E-07	2.03E-07	128	984	0.00E+00	1.38E-03	1.38E-03	1.38E-03	1.38E-03	1.38E-03	1.38E-03
						Dose Commitment (mrem) =				0.00E+00	1.38E-03	1.38E-03	1.38E-03	1.38E-03	1.38E-03	1.38E-03

McGuire Nuclear Station
Dose from Shoreline Sediment Pathway for 2017 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^2**

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

External Dose Factor Standing on Contaminated Ground		**Highest Annual Net Mean Concentration**		**Dose**	
	(mrem/hr per pCi/m^2)	**Indicator**	**Sediment**	**(mrem)**	
Radionuclide	**T. Body**	**Skin**	**Location**	**(pCi/kg)**	**T. Body**	**Skin**
Cs-134	**1.20E-08**	**1.40E-08**	**ALL**	**0.00**	**0.00E+00**	**0.00E+00**
Cs-137	**4.20E-09**	**4.90E-09**	**130**	**48.7**	**2.29E-05**	**2.67E-05**
		Dose Commitment (mrem) =			**2.29E-05**	**2.67E-05**

McGuire Nuclear Station
Dose from Drinking Water Pathway for 2017 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

	Ingestion Dose Factor							Highest Annual Net Mean Concentration		Dose (mrem)						
Radionuclide	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	1046	0.00E+00	5.65E-02	5.65E-02	5.65E-02	5.65E-02	5.65E-02	5.65E-02
						Dose Commitment (mrem)=				0.00E+00	5.65E-02	5.65E-02	5.65E-02	5.65E-02	5.65E-02	5.65E-02

McGuire Nuclear Station
Dose from Broadleaf Vegetation Pathway for 2017 Data
Maximum Exposed Teen

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

Usage (intake in one year) = 42 kg

	Ingestion Dose Factor							Highest Annual Net Mean Concentration		Dose (mrem)						
Radionuclide	Bone	Liver	T. Body	Thyroid	Kidney	Lung	GI-LLI	Indicator Location	Food (pCi/kg)	Bone	Liver	T. Body	Thyroid	Kidney	Lung	GI-LLI
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	120	30.3	1.43E-01	1.90E-01	6.60E-02	0.00E+00	6.45E-02	2.51E-02	2.70E-03
						Dose Commitment (mrem) =				1.43E-01	1.90E-01	6.60E-02	0.00E+00	6.45E-02	2.51E-02	2.70E-03

McGuire Nuclear Station
Dose from Fish Pathway for 2017 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 = 1093 pCi/l x 0.9 = 984 pCi/kg

Usage (intake in one year) = 16 kg

	Ingestion Dose Factor							Highest Annual Net Mean Concentration		Dose (mrem)						
Radionuclide	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	0.00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
H-3	NO DATA	1.06E-07	1.06E-07	1.06E-07	1.06E-07	1.06E-07	1.06E-07	128	984	0.00E+00	1.67E-03	1.67E-03	1.67E-03	1.67E-03	1.67E-03	1.67E-03
						Dose Commitment (mrem) =				0.00E+00	1.67E-03	1.67E-03	1.67E-03	1.67E-03	1.67E-03	1.67E-03

McGuire Nuclear Station
Dose from Shoreline Sediment Pathway for 2017 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^2**

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

	External Dose Factor Standing on Contaminated Ground		Highest Annual Net Mean Concentration		Dose	
	(mrem/hr per pCi/m^2)		Indicator	Sediment	(mrem)	
Radionuclide	T. Body	Skin	Location	(pCi/kg)	T. Body	Skin
Cs-134	1.20E-08	1.40E-08	ALL	0.00	0.00E+00	0.00E+00
Cs-137	4.20E-09	4.90E-09	130	48.7	1.10E-04	1.28E-04
	Dose Commitment (mrem) =				1.10E-04	1.28E-04

McGuire Nuclear Station
Dose from Drinking Water Pathway for 2017 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

	Ingestion Dose Factor							Highest Annual Net Mean Concentration		Dose (mrem)						
Radionuclide	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	1046	0.00E+00	8.02E-02	8.02E-02	8.02E-02	8.02E-02	8.02E-02	8.02E-02
						Dose Commitment (mrem) =				0.00E+00	8.02E-02	8.02E-02	8.02E-02	8.02E-02	8.02E-02	8.02E-02

McGuire Nuclear Station
Dose from Broadleaf Vegetation Pathway for 2017 Data
Maximum Exposed Adult

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

Usage (intake in one year) = 64 kg

	Ingestion Dose Factor							Highest Annual Net Mean Concentration		Dose (mrem)						
Radionuclide	Bone	Liver	T. Body	Thyroid	Kidney	Lung	GI-LLI	Indicator Location	Food (pCi/kg)	Bone	Liver	T. Body	Thyroid	Kidney	Lung	GI-LLI
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	120	30.3	1.55E-01	2.11E-01	1.38E-01	0.00E+00	7.18E-02	2.39E-02	4.09E-03
						Dose Commitment (mrem) =				1.55E-01	2.11E-01	1.38E-01	0.00E+00	7.18E-02	2.39E-02	4.09E-03

McGuire Nuclear Station
Dose from Fish Pathway for 2017 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 = 1093 pCi/l x 0.9 = 984 pCi/kg

Usage (intake in one year) = 21 kg

	Ingestion Dose Factor							Highest Annual Net Mean Concentration		Dose (mrem)						
Radionuclide	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	0.00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
H-3	NO DATA	1.05E-07	1.05E-07	1.05E-07	1.05E-07	1.05E-07	1.05E-07	128	984	0.00E+00	2.17E-03	2.17E-03	2.17E-03	2.17E-03	2.17E-03	2.17E-03
						Dose Commitment (mrem) =				0.00E+00	2.17E-03	2.17E-03	2.17E-03	2.17E-03	2.17E-03	2.17E-03

McGuire Nuclear Station
Dose from Shoreline Sediment Pathway for 2017 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^2**

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

External Dose Factor Standing on Contaminated Ground			**Highest Annual Net Mean Concentration**		**Dose**	
	(mrem/hr per pCi/m^2)				**(mrem)**	
Radionuclide	**T. Body**	**Skin**	**Indicator Location**	**Sediment (pCi/kg)**	**T. Body**	**Skin**
Cs-134	**1.20E-08**	**1.40E-08**	**ALL**	**0.00**	**0.00E+00**	**0.00E+00**
Cs-137	**4.20E-09**	**4.90E-09**	**130**	**48.7**	**1.96E-05**	**2.29E-05**
	Dose Commitment (mrem) =				**1.96E-05**	**2.29E-05**

5.0 QUALITY ASSURANCE

5.1 SAMPLE COLLECTION

EnRad Laboratories and the Environmental Water Resources Group 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 the environmental dosimetry measurements as specified by approved dosimetry analysis procedures.

5.4 LABORATORY EQUIPMENT QUALITY ASSURANCE

5.4.1 DAILY QUALITY CONTROL

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

5.4.2 CALIBRATION VERIFICATION

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

5.4.3 BATCH PROCESSING

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

5.5 DUKE ENERGY INTERLABORATORY COMPARISON PROGRAM

In 2017 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. The EnRad organization, in 2017, elected to voluntarily withdraw its North Carolina State Drinking Water Certification with the North Carolina Department of Health and Human Services, State Laboratory of Public Health. It was determined that there was no longer a business case for maintaining this certification (NCR # 02093317). Samples requiring this certification are sent to General Engineering Laboratories, LLC (GEL), which maintains the necessary certifications to meet regulatory commitments for drinking water.

EnRad Laboratory participated in an interlaboratory program with Eckert & Ziegler Analytics (EZA) in 2017. EZA results were evaluated against the NRC Inspection Manual Procedure 84750 (IP 84750) acceptance criteria stated in EnRad Procedure 515, Cross Check Program Administration. All regulatory requirements continue to be met by the EZA Cross Check Program.

5.5.1 DUKE ENERGY INTERLABORATORY PROGRAM

EnRad Laboratories made the determination in 2017 to discontinue its participation in the Duke Energy Fleet Scientific Services (FSS) Interlaboratory Program, as EnRad already maintains a sufficient cross check program through EZA. Historically, Duke Energy FSS has maintained its own Interlaboratory Program supporting the Duke Energy Fleet. At EnRad, this has been a supplement to EnRad's participation in the EZA Cross Check Program. In 2017, FSS determined that shifting business needs had reduced the need for the FSS Interlaboratory Program and the majority of the Interlaboratory Program has been discontinued.

5.5.2 ECKERT & ZIEGLER ANALYTICS CROSS CHECK PROGRAM

EnRad Laboratories participated in the Eckert & Ziegler Analytics (EZA) Cross Check Program during 2017. Cross check samples including mixed gamma in liquid, mixed gamma in vegetation, low-level I-131 in liquid, mixed gamma air filters (single and composites), mixed gamma and I-131 air cartridges, strontium in water, gross alpha and beta in water, gross alpha and beta in filters, and tritium in water were analyzed at various times of the year. A summary of the EnRad Laboratory program results for 2017 is documented in Table 5.0-A.

Interlaboratory cross check samples from EZA were received and analyzed in all four quarters of 2017. Table 5.0-A lists the performance for specific samples. Eighty-seven nuclide results were reported to EZA of which eighty-six (98.9%) met the acceptance criteria based on IP 84750. One EZA cross check nuclide result did exhibit a high bias and EnRad proactively initiated an NCR to investigate this bias.

In the second quarter of 2017, a mixed gamma in filter cross check (E11890) yielded a disagreement on only the Zinc-65 nuclide value (ratio to the known of 130%). An overall high bias was noted across all other nuclides, primarily in the high energy range. NCR # 02138003 was written to investigate and document the failure. It was determined that the geometry used for gamma filter counting

contained compounding biases, leading to consistently high results in the upper energy range. Following the implementation of a new filter geometry, an equivalent filter cross check (E12011) was analyzed in the fourth quarter of 2017. The cross check passed with reduced biases, and a Zinc-65 nuclide value of 111% of the known.

5.5.3 ERA PROFICIENCY TESTING

EnRad Laboratories made the determination in 2017 to discontinue its participation in the Environmental Resource Associates (ERA) Proficiency Testing program, as this program's participation was solely for the purpose of maintaining EnRad's North Carolina State Drinking Water Certification requirements (NCR # 02093317).

5.6 STATE OF NORTH CAROLINA INTERCOMPARISON PROGRAM

EnRad Laboratories routinely participates with the North Carolina Department of Health and Human Services in an intercomparison program. EnRad Laboratories sends McGuire Nuclear Plant Radiological Environmental Monitoring Program air, drinking water, surface water, milk, fish, food products, and shoreline sediment samples to the North Carolina Department of Health and Human Services, Division of Public Health for intercomparison analysis.

5.7 TLD INTERCOMPARISON PROGRAM

5.7.1 NUCLEAR TECHNOLOGY SERVICES INTERCOMPARISON PROGRAM

Radiation Dosimetry and Records participates in a quarterly TLD intercomparison program administered by Nuclear Technology Services, Inc. of Roswell, GA. Nuclear Technology Services irradiates environmental dosimeters quarterly and sends them to the Radiation Dosimetry and Records group for analysis of the unknown estimated delivered exposure. A summary of the 2017 Nuclear Technology Services Intercomparison Report is documented in Table 5.0-B.

The individual measurements were evaluated and results falling outside the acceptable ratio criteria had an evaluation performed to identify any recommended remedial actions and to reduce anomalous errors. During first quarter of 2017 an environmental external TLD cross check failed and NCR # 02147847 was written to document the failure of the four individual TLDs; however, the overall result fell within both the Duke Energy and Nuclear Technology Services, Inc. acceptance criteria. To prevent recurrence, the four TLDs were pulled and visually inspected for abnormalities in the elements and overall integrity of the TLDs and no abnormalities were found. The four TLDs were checked per procedure and TLDs # 533830 and 103632 were both removed from service.

5.7.2 INTERNAL CROSS CHECK (DUKE ENERGY)

Radiation Dosimetry and Records participates in a quarterly TLD internal comparison 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 2017 Internal Cross Check (Duke Energy) Program is documented in Table 5.0-B.

TABLE 5.0-A

ECKERT & ZIEGLER ANALYTICS

CROSS CHECK PROGRAM

2017 Cross Check Results for EnRad Laboratories

Interlaboratory cross check samples from EZA were received and analyzed in all four quarters of 2017. 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). Table 5.0-A lists the performance for specific samples. Eighty-seven nuclide results were reported to EZA of which eighty-six (98.9%) 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	E11755	Cs-137	1	pCi	247	244	1.01	Agreement
	E11925A	Cs-137	3	pCi	191	199	0.96	Agreement
Gamma in Cartridge	E11924	Ce-141	3	pCi	58.8	60.0	0.98	Agreement
		Co-58	3	pCi	81.0	80.7	1.00	Agreement
		Co-60	3	pCi	182	181	1.01	Agreement
		Cr-51	3	pCi	144	150	0.96	Agreement
		Cs-134	3	pCi	132	138	0.95	Agreement
		Cs-137	3	pCi	123	119	1.04	Agreement
		Fe-59	3	pCi	88.3	86.5	1.02	Agreement
		Mn-54	3	pCi	89.7	84.7	1.06	Agreement
		Zn-65	3	pCi	141	127	1.11	Agreement
LLI-131 in Water	E12007	I-131	4	pCi/L	58.8	57.7	1.02	Agreement
LLI-131 in Milk	E11889	I-131	2	pCi/L	95.4	96.3	0.99	Agreement
I-131 in Charcoal Cartridge	E11754	I-131	1	pCi	98.1	93.5	1.05	Agreement
	E12003	I-131	3	pCi	64.7	64.5	1.00	Agreement
Gamma in Simulated Vegetation (Coffee Grounds)	E12010	Ce-141	4	pCi/g	0.202	0.195	1.04	Agreement
		Co-58	4	pCi/g	0.181	0.178	1.02	Agreement
		Co-60	4	pCi/g	0.334	0.342	0.98	Agreement
		Cr-51	4	pCi/g	0.423	0.479	0.88	Agreement
		Cs-134	4	pCi/g	0.220	0.247	0.89	Agreement
		Cs-137	4	pCi/g	0.281	0.280	1.00	Agreement
		Fe-59	4	pCi/g	0.227	0.224	1.01	Agreement
		Mn-54	4	pCi/g	0.337	0.318	1.06	Agreement
		Zn-65	4	pCi/g	0.447	0.418	1.07	Agreement

TABLE 5.0-A (Cont.)

Sample	Sample ID	Nuclide	Quarter	Units	EnRad Value	EZA Value	EnRad/EZA Ratio	Evaluation
Gamma in Composite Filter	E11752	Ce-141	1	pCi	101	97.3	1.04	Agreement
		Cr-51	1	pCi	202	195	1.04	Agreement
		Cs-134	1	pCi	90.4	80.5	1.12	Agreement
		Cs-137	1	pCi	99.8	93.9	1.06	Agreement
		Co-58	1	pCi	106	100	1.06	Agreement
		Mn-54	1	pCi	126	110	1.14	Agreement
		Fe-59	1	pCi	101	86.4	1.17	Agreement
		Zn-65	1	pCi	164	134	1.22	Agreement
		Co-60	1	pCi	132	123	1.08	Agreement
Gamma in Water	E11753	I-131	1	pCi/L	101	97.8	1.03	Agreement
		Ce-141	1	pCi/L	149	145	1.03	Agreement
		Cr-51	1	pCi/L	282	291	0.97	Agreement
		Cs-134	1	pCi/L	117	120	0.97	Agreement
		Cs-137	1	pCi/L	142	140	1.01	Agreement
		Co-58	1	pCi/L	154	150	1.03	Agreement
		Mn-54	1	pCi/L	174	165	1.06	Agreement
		Fe-59	1	pCi/L	139	129	1.08	Agreement
		Zn-65	1	pCi/L	226	200	1.13	Agreement
		Co-60	1	pCi/L	189	183	1.03	Agreement
Gamma in Water	E12006	I-131	3	pCi/L	71.8	79.2	0.91	Agreement
		Ce-141	3	pCi/L	105	99.5	1.06	Agreement
		Cr-51	3	pCi/L	240	248	0.97	Agreement
		Cs-134	3	pCi/L	208	229	0.91	Agreement
		Cs-137	3	pCi/L	202	196	1.03	Agreement
		Co-58	3	pCi/L	135	134	1.01	Agreement
		Mn-54	3	pCi/L	148	140	1.05	Agreement
		Fe-59	3	pCi/L	148	143	1.03	Agreement
		Zn-65	3	pCi/L	238	210	1.13	Agreement
		Co-60	3	pCi/L	294	299	0.98	Agreement

TABLE 5.0-A (Cont.)

Sample	Sample ID	Nuclide	Quarter	Units	EnRad Value	EZA Value	EnRad/EZA Ratio	Evaluation
Gamma in Filter (Falcon)	E11890	Ce-141	2	pCi	119	114	1.04	Agreement
		Co-58	2	pCi	124	117	1.06	Agreement
		Co-60	2	pCi	150	144	1.04	Agreement
		Cr-51	2	pCi	240	238	1.01	Agreement
		Cs-134	2	pCi	148	142	1.04	Agreement
		Cs-137	2	pCi	122	113	1.08	Agreement
		Fe-59	2	pCi	107	87.0	1.23	Agreement
		Mn-54	2	pCi	146	130	1.13	Agreement
		Zn-65	2	pCi	200	154	1.30	Non-Agreement[1]
Gamma in Filter (Falcon)	E12011	Ce-141	4	pCi	82.5	76.2	1.08	Agreement
		Co-58	4	pCi	70.8	69.6	1.02	Agreement
		Co-60	4	pCi	144	134	1.07	Agreement
		Cr-51	4	pCi	202	188	1.08	Agreement
		Cs-134	4	pCi	97.4	96.7	1.01	Agreement
		Cs-137	4	pCi	119	110	1.09	Agreement
		Fe-59	4	pCi	98.5	87.9	1.12	Agreement
		Mn-54	4	pCi	132	125	1.06	Agreement
		Zn-65	4	pCi	181	164	1.11	Agreement
Gamma in Milk	E11756	I-131	1	pCi/L	105	97.9	1.07	Agreement
		Ce-141	1	pCi/L	149	145	1.03	Agreement
		Cr-51	1	pCi/L	331	290	1.14	Agreement
		Cs-134	1	pCi/L	116	120	0.97	Agreement
		Cs-137	1	pCi/L	150	140	1.07	Agreement
		Co-58	1	pCi/L	152	150	1.02	Agreement
		Mn-54	1	pCi/L	177	164	1.08	Agreement
		Fe-59	1	pCi/L	148	129	1.15	Agreement
		Zn-65	1	pCi/L	224	199	1.12	Agreement
		Co-60	1	pCi/L	194	183	1.06	Agreement
Gross Beta in Water	E11892	Cs-137	2	pCi/L	255	270	0.94	Agreement
	E12009	Cs-137	4	pCi/L	250	265	0.94	Agreement
Tritium in Water	E11891	H-3	2	pCi/L	14300	14000	1.02	Agreement
	E12008	H-3	4	pCi/L	13200	13400	0.98	Agreement

1) NCR # 02138003

TABLE 5.0-B

2017 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 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.

1st Quarter 2017

TLD Number	Reported (mR)	Delivered (mR)	Bias (% diff)	Pass/Fail Criteria	Pass/Fail
103469	79.16	72.16	9.70	<+/-15%	Pass
103632	83.94	72.16	16.32	<+/-15%	Fail**
103636	76.22	72.16	5.63	<+/-15%	Pass
103637	77.82	72.16	7.84	<+/-15%	Pass
103642	79.08	72.16	9.59	<+/-15%	Pass
		Average Bias (B)	9.82		
		Standard Deviation (S)	4.00		
		Measure Performance |B|+S	13.81	<15%	Pass

2nd Quarter 2017

TLD Number	Reported (mR)	Delivered (mR)	Bias (% diff)	Pass/Fail Criteria	Pass/Fail
103126	20.33	18.90	7.57	<+/-15%	Pass
103068	20.20	18.90	6.88	<+/-15%	Pass
103065	19.51	18.90	3.23	<+/-15%	Pass
102830	20.64	18.90	9.21	<+/-15%	Pass
103002	20.18	18.90	6.77	<+/-15%	Pass
		Average Bias (B)	6.73		
		Standard Deviation (S)	2.19		
		Measure Performance |B|+S	8.92	<15%	Pass

3rd Quarter 2017

TLD Number	Reported (mR)	Delivered (mR)	Bias (% diff)	Pass/Fail Criteria	Pass/Fail
102253	60.07	60.04	0.05	<+/-15%	Pass
101122	62.80	60.04	4.60	<+/-15%	Pass
103099	60.78	60.04	1.23	<+/-15%	Pass
102288	61.20	60.04	1.93	<+/-15%	Pass
100163	59.82	60.04	-0.37	<+/-15%	Pass
		Average Bias (B)	1.49		
		Standard Deviation (S)	1.96		
		Measure Performance |B|+S	3.45	<15%	Pass

4th Quarter 2017

TLD Number	Reported (mR)	Delivered (mR)	Bias (% diff)	Pass/Fail Criteria	Pass/Fail
102343	72.30	70.02	3.26	<+/-15%	Pass
102265	72.85	70.02	4.04	<+/-15%	Pass
102340	71.25	70.02	1.76	<+/-15%	Pass
103972	66.99	70.02	-4.33	<+/-15%	Pass
103921	68.54	70.02	-2.11	<+/-15%	Pass
		Average Bias (B)	0.52		
		Standard Deviation (S)	3.60		
		Measure Performance |B|+S	4.12	<15%	Pass

Fail** refers to NCR # 02147847

TABLE 5.0-B (Cont.)

2017 ENVIRONMENTAL DOSIMETER

CROSS CHECK RESULTS

Internal Crosscheck (Duke Energy)

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

1st Quarter 2017

TLD Number	Reported (mR)	Delivered (mR)	Bias (% diff)	Pass/Fail Criteria	Pass/Fail
102207	49.22	48.0	2.54	<+/-15%	Pass
102208	47.57	48.0	-0.90	<+/-15%	Pass
103410	52.06	48.0	8.46	<+/-15%	Pass
102167	49.65	48.0	3.44	<+/-15%	Pass
102079	51.39	48.0	7.06	<+/-15%	Pass
103409	50.33	48.0	4.85	<+/-15%	Pass
102209	49.32	48.0	2.75	<+/-15%	Pass
102214	49.46	48.0	3.04	<+/-15%	Pass
102117	49.94	48.0	4.04	<+/-15%	Pass
102201	49.83	48.0	3.81	<+/-15%	Pass
		Average Bias (B)	3.91		
		Standard Deviation (S)	2.56		
		Measure Performance |B|+S	6.47	<15%	Pass

2nd Quarter 2017

TLD Number	Reported (mR)	Delivered (mR)	Bias (% diff)	Pass/Fail Criteria	Pass/Fail
102519	46.79	43.0	8.81	<+/-15%	Pass
102870	49.18	43.0	14.37	<+/-15%	Pass
103537	46.05	43.0	7.09	<+/-15%	Pass
103541	47.33	43.0	10.07	<+/-15%	Pass
103111	48.21	43.0	12.12	<+/-15%	Pass
102304	45.04	43.0	4.74	<+/-15%	Pass
102873	47.59	43.0	10.67	<+/-15%	Pass
102872	47.85	43.0	11.28	<+/-15%	Pass
102871	47.80	43.0	11.16	<+/-15%	Pass
102861	48.11	43.0	11.88	<+/-15%	Pass
		Average Bias (B)	10.22		
		Standard Deviation (S)	2.74		
		Measure Performance |B|+S	12.96	<15%	Pass

3rd Quarter 2017

TLD Number	Reported (mR)	Delivered (mR)	Bias (% diff)	Pass/Fail Criteria	Pass/Fail
101195	19.81	18.8	5.15	<+/-15%	Pass
103731	19.45	18.8	3.24	<+/-15%	Pass
101190	19.90	18.8	5.63	<+/-15%	Pass
103532	20.61	18.8	9.39	<+/-15%	Pass
100314	19.70	18.8	4.56	<+/-15%	Pass
101264	18.93	18.8	0.48	<+/-15%	Pass
101345	19.18	18.8	1.80	<+/-15%	Pass
101397	20.06	18.8	6.48	<+/-15%	Pass
100868	20.45	18.8	8.55	<+/-15%	Pass
103078	20.51	18.8	8.86	<+/-15%	Pass
		Average Bias (B)	5.41		
		Standard Deviation (S)	3.01		
		Measure Performance |B|+S	8.43	<15%	Pass

4th Quarter 2017

TLD Number	Reported (mR)	Delivered (mR)	Bias (% diff)	Pass/Fail Criteria	Pass/Fail
103951	50.92	50.0	1.84	<+/-15%	Pass
103949	51.06	50.0	2.12	<+/-15%	Pass
103950	51.04	50.0	2.08	<+/-15%	Pass
104011	51.38	50.0	2.76	<+/-15%	Pass
103931	51.10	50.0	2.20	<+/-15%	Pass
104004	50.74	50.0	1.48	<+/-15%	Pass
103996	49.63	50.0	-0.74	<+/-15%	Pass
103963	52.97	50.0	5.94	<+/-15%	Pass
103947	49.17	50.0	-1.66	<+/-15%	Pass
103929	49.88	50.0	-0.24	<+/-15%	Pass
		Average Bias (B)	1.58		
		Standard Deviation (S)	2.12		
		Measure Performance |B|+S	3.70	<15%	Pass

APPENDIX A

ENVIRONMENTAL SAMPLING
&
ANALYSIS PROCEDURES

APPENDIX A

ENVIRONMENTAL SAMPLING AND ANALYSIS PROCEDURES

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

Environmental sampling and analyses were performed by EnRad Laboratories, Dosimetry and Records, and the Environmental Water Resources Group.

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

I. CHANGE OF SAMPLING PROCEDURES

Indicator TLD Location 168 (Outer Ring, NE sector 4.60 miles) was relocated beginning fourth quarter due to safety/access issues (NCR # 02150495).

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

Gross beta analysis is performed by concentrating a designated aliquot of sample precipitate and analyzing by Tennelec XLB Series 5 gas-flow proportional counters. Samples are batch processed with a blank to ensure sample contamination has not occurred.

III. CHANGE OF ANALYSIS PROCEDURES

The tritium preparation procedure was modified during 2017 to align with ASTM Method D4107-08, Standard Test Method for Tritium in Drinking Water; Water and Environmental Technology, Volume 11.02. 2014 Edition. Tritium dark adaptation times were also reduced (NCR # 02134015).

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 6/6 - 6/8/2017. Results are shown in Table 3.10. No changes were made to the sampling procedures during 2017 as a result of the 2017 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 2017.

V. GLOBAL POSITIONING SYSTEM (GPS) ANALYSIS

The McGuire site centerline used for GPS measurements was referenced from the McGuire Nuclear Station Updated Final Safety Analysis Report (UFSAR), section 2.1.1, Site Location. Waypoint coordinates used for MNS GPS measurements were latitude 35°-25'-59"N and longitude 80°-56'-55"W. Maps and tables were generated using North American Datum (NAD) 27. Data normally reflect accuracy to within 2 to 5 meters from point of measurement. GPS field measurements were taken as close as possible to the item of interest. Distances for the locations are displayed using three significant figures.

APPENDIX B

RADIOLOGICAL ENVIRONMENTAL MONITORING PROGRAM

SUMMARY OF RESULTS

MCGUIRE NUCLEAR STATION
RADIOLOGICAL ENVIRONMENTAL MONITORING PROGRAM DATA SUMMARY

McGuire Nuclear Station
Mecklenburg County, North Carolina

Docket Numbers 50-369, 370
Calendar Year 2017

Medium or Pathway Sampled or Measured (Unit of Measurement)	Type and Total No. of Measurements Performed	Lower Limit of Detection (LLD)[1]	All Indicator Locations[2][3] Mean Range	Location w/Highest Annual Mean		Control Locations Mean Range[2][3]	No. of Non-Routine Report Meas.
				Name, Distance, and Direction	Mean Range[2][3]		
Air Particulate (pCi/m^3)	Gross Beta 371 [4][6]	See Table 2.2-C	2.16E-2 (318/318) 7.25E-3 – 4.26E-2	195 (0.19 mi N)	2.31E-2 (53/53) 1.19E-2 – 4.26E-2	102 (9.89 mi WNW) 2.33E-2 (53/53) 1.11E-2 – 4.16E-2	0
	Gamma 35 [4][6]	See Table 2.2-C	All less than LLD	-----	-----	All less than LLD	0
Air Radioiodine (pCi/m^3)	Gamma 371 [4][6]	See Table 2.2-C	All less than LLD	-----	-----	All less than LLD	0
Drinking Water (pCi/l)	Gross Beta 70 [4][7]	4	1.78 (49/56) 1.05 – 5.61	119 (7.40 mi SSW)	2.18 (11/14) 1.10 – 5.61	136 (12.7 mi NNE) 2.02 (13/14) 1.03 – 3.22	0
	Gamma 70 [4][7]	See Table 2.2-C	All less than LLD	-----	-----	All less than LLD	0
	Tritium 25 [4][7]	2000	687 (18/20) 199 - 1970	101 (3.31 mi E)	1046 (5/5) 687 – 1970	All less than LLD	0
Surface Water (pCi/l)	Gamma 42 [4][7]	See Table 2.2-C	All less than LLD	-----	-----	All less than LLD	0
	Tritium 15 [4][7]	2000	859 (10/10) 494 - 2110	128 (0.45 mi NE)	1093 (5/5) 655 - 2110	All less than LLD	0
Milk (pCi/l)	Gamma 26	See Table 2.2-C	No Indicator Location	-----	-----	All less than LLD	0
	I-131 26	See Table 2.2-C	No Indicator Location	-----	-----	All less than LLD	0

MCGUIRE NUCLEAR STATION
RADIOLOGICAL ENVIRONMENTAL MONITORING PROGRAM DATA SUMMARY

McGuire Nuclear Station
Mecklenburg County, North Carolina

Docket Numbers 50-369, 370
Calendar Year 2017

Medium or Pathway Sampled or Measured (Unit of Measurement)	Type and Total No. of Measurements Performed	Lower Limit of Detection (LLD)[1]	All Indicator Locations[2][3] Mean Range	Location w/Highest Annual Mean		Control Locations Mean Range[2][3]	No. of Non-Routine Report Meas.
				Name, Distance, and Direction	Mean Range[2][3]		
Broadleaf Vegetation (pCi/kg, wet)	Gamma 48 Cs-137	See Table 2.2-C	30.3 (1/36) 30.3 – 30.3	120 (0.46 mi NNE)	30.3 (1/12) 30.3 – 30.3	All less than LLD	0
Food Products (pCi/kg, wet)	Gamma 6	See Table 2.2-C	All less than LLD	-----	-----	No Control Location	0
Fish (pCi/kg, wet)	Gamma 12	See Table 2.2-C	All less than LLD	----	----	All less than LLD	0
Sediments--Shoreline (pCi/kg, dry)	Gamma 6 Cs-137	See Table 2.2-C	48.7 (2/4) 38.4 – 58.9	130 (0.52 mi SW)	48.7 (2/2) 38.4 – 58.9	All less than LLD	0
Direct Gamma Radiation (TLD) (mR per quarter)[4]	TLD Readout 163[5]	-----	16.1 (159/159) 9.25 – 29.8	180 (12.7 mi NNE)	25.5 (4/4) 21.9 – 29.8	175 (15.5 mi WNW) 21.7 (4/4) 19.6 – 25.9	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. Missing samples or surveillances are discussed in Appendix C or Appendix D.

5. TLD exposure is reported in milliroentgen (mR) per standard quarter (91 days). TLD data indicated in section 3.9 (Direct Gamma Radiation) are reported in mrem /yr (n * 0.95 ergs/g-Roentgen) [2].

6. Gamma filter composite calendar reconciliation period, 2017 (NCR # 02174501).

7. Tritium composite calendar reconciliation period, 2017 (NCR # 02174937).

[2] Cember, H. (2009). Introduction to Health Physics, 4th Edition. United States: McGraw-Hill Companies, Inc.

APPENDIX C

SAMPLING DEVIATIONS
&
UNAVAILABLE ANALYSES

APPENDIX C

MCGUIRE NUCLEAR STATION
SAMPLING DEVIATIONS & UNAVAILABLE ANALYSES

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

C.1 SAMPLING DEVIATIONS

Air Particulate and Air Radioiodine

REMP weekly air samples (Air Particulate (AP) or Air Radioiodine (AR)) that experience any downtime during a surveillance period are reported as a Deviation and classified as a "Sampling Deviation." However, the sample is counted and the data reported, whereas a Deviation with no available sample is classified as an "Unavailable Analyses" and does not have any data reported. The air samplers operated for a total of 99.9% availability in 2017.

Location	Scheduled Collection Dates	Code	Description & Action to Prevent Recurrence	Corrective Action
120	2/6 – 2/13/2017	PI	1.83 hours downtime due to severe thunderstorm.	NCR # 02099605
121	2/6 – 2/13/2017	PI	1.81 hours downtime due to severe thunderstorm.	NCR # 02099609
195	2/6 – 2/13/2017	PI	1.83 hours downtime due to severe thunderstorm.	NCR # 02099612
102	7/3 – 7/10/2017	PI	6.01 hours downtime due to severe thunderstorm.	NCR # 02135716

Drinking Water and Surface Water

REMP monthly drinking water samples (Drinking Water (DW)) or surface water samples (Surface Water (SW)) that experience any downtime during a surveillance period are reported as a Deviation and classified as a "Sampling Deviation." However, the sample is counted and the data reported, whereas a Deviation with no available sample is classified as an "Unavailable Analyses" and does not have any data reported. The drinking and surface water samplers operated for a total of 100% availability in 2017. There were no drinking water or surface water sampling deviations or unavailable drinking water or surface water samples during 2017.

C.2 UNAVAILABLE ANALYSES

Food Products / Crops

Location	Scheduled Collection Dates	Code	Description & Action to Prevent Recurrence	Corrective Action
104	1/3/2017	SU	Seasonally unavailable.	NCR # 02088935
104	2/6/2017	SU	Seasonally unavailable.	NCR # 02097555
104	3/6/2017	SU	Seasonally unavailable.	NCR # 02105457
104	4/3/2017	SU	Seasonally unavailable.	NCR # 02113714
104	5/1/2017	SU	Seasonally unavailable.	NCR # 02120510
104	6/5/2017	SU	Seasonally unavailable.	NCR # 02128942

TLD

Location	Scheduled Collection Dates	Code	Description & Action to Prevent Recurrence	Corrective Action
160	6/14 – 9/13/2017	CN	TLD missing at time of collection due to construction.	NCR # 02150492

APPENDIX D

ANALYTICAL DEVIATIONS

No Analytical deviations were incurred for the
2017 Radiological Environmental Monitoring Program

APPENDIX E

RADIOLOGICAL ENVIRONMENTAL MONITORING PROGRAM RESULTS

2017

This appendix includes sample analysis report summaries and supportive data generated from each sample medium for 2017.

MCGUIRE Radiological Environmental Monitoring Analysis Report - 2017 (Appendix E)

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

Sample Point 102 [CONTROL - WNW @ 9.89 miles]

Sample ID:	Sample Dates:	Nuclide	Activity	2 Sigma Error	MDA
431811	12/27/2016 - 1/3/2017	Beta	1.83E-02	2.84E-03	2.95E-03
432218	1/3/2017 - 1/9/2017	Beta	1.83E-02	3.34E-03	3.89E-03
432919	1/9/2017 - 1/16/2017	Beta	2.58E-02	3.03E-03	2.93E-03
433316	1/16/2017 - 1/23/2017	Beta	1.67E-02	2.60E-03	2.89E-03
433734	1/23/2017 - 1/30/2017	Beta	1.87E-02	2.69E-03	2.89E-03
434472	1/30/2017 - 2/6/2017	Beta	2.59E-02	2.99E-03	2.83E-03
435115	2/6/2017 - 2/13/2017	Beta	2.35E-02	3.25E-03	3.37E-03
435822	2/13/2017 - 2/20/2017	Beta	1.88E-02	3.00E-03	3.20E-03
436273	2/20/2017 - 2/27/2017	Beta	1.94E-02	2.73E-03	2.88E-03
436727	2/27/2017 - 3/6/2017	Beta	2.01E-02	3.04E-03	3.25E-03
437590	3/6/2017 - 3/13/2017	Beta	1.89E-02	3.05E-03	3.41E-03
438314	3/13/2017 - 3/20/2017	Beta	2.07E-02	2.72E-03	2.70E-03
438818	3/20/2017 - 3/27/2017	Beta	2.28E-02	3.26E-03	3.49E-03
439192	12/27/2016 - 3/27/2017	Cs-134	<5.22E-04	0.00E+00	5.22E-04
		Cs-137	<3.57E-04	0.00E+00	3.57E-04
		Be-7	1.71E-01	2.49E-02	1.19E-02
		K-40	<1.24E-02	0.00E+00	1.24E-02
439185	3/27/2017 - 4/3/2017	Beta	1.30E-02	2.69E-03	3.23E-03
440017	4/3/2017 - 4/10/2017	Beta	1.44E-02	2.93E-03	3.69E-03
440611	4/10/2017 - 4/17/2017	Beta	2.62E-02	3.34E-03	3.29E-03
441426	4/17/2017 - 4/24/2017	Beta	1.54E-02	2.45E-03	2.65E-03
441873	4/24/2017 - 5/1/2017	Beta	1.11E-02	2.85E-03	3.89E-03
442323	5/1/2017 - 5/8/2017	Beta	1.54E-02	2.44E-03	2.62E-03
442880	5/8/2017 - 5/15/2017	Beta	2.49E-02	3.23E-03	3.10E-03
443319	5/15/2017 - 5/22/2017	Beta	2.78E-02	3.17E-03	3.14E-03
443869	5/22/2017 - 5/30/2017	Beta	1.42E-02	2.47E-03	2.71E-03
444278	5/30/2017 - 6/5/2017	Beta	2.90E-02	3.44E-03	3.29E-03

MCGUIRE Radiological Environmental Monitoring Analysis Report - 2017 (Appendix E)

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

Sample Point 102 [CONTROL - WNW @ 9.89 miles]

Sample ID:	445336	Sample Dates: 6/5/2017 - 6/12/2017	Nuclide	Activity	2 Sigma Error	MDA
			Beta	1.75E-02	2.69E-03	3.01E-03
Sample ID:	446340	Sample Dates: 6/12/2017 - 6/19/2017	Nuclide	Activity	2 Sigma Error	MDA
			Beta	1.98E-02	2.78E-03	3.01E-03
Sample ID:	446836	Sample Dates: 6/19/2017 - 6/26/2017	Nuclide	Activity	2 Sigma Error	MDA
			Beta	1.62E-02	2.59E-03	2.93E-03
Sample ID:	447206	Sample Dates: 3/27/2017 - 6/26/2017	Nuclide	Activity	2 Sigma Error	MDA
			Cs-134	<7.42E-04	0.00E+00	7.42E-04
			Cs-137	<5.51E-04	0.00E+00	5.51E-04
			Be-7	1.62E-01	2.50E-02	1.15E-02
			K-40	<1.14E-02	0.00E+00	1.14E-02
Sample ID:	447199	Sample Dates: 6/26/2017 - 7/3/2017	Nuclide	Activity	2 Sigma Error	MDA
			Beta	2.32E-02	3.24E-03	3.29E-03
Sample ID:	447818	Sample Dates: 7/3/2017 - 7/10/2017	Nuclide	Activity	2 Sigma Error	MDA
			Beta	1.75E-02	3.09E-03	3.56E-03
Sample ID:	448290	Sample Dates: 7/10/2017 - 7/17/2017	Nuclide	Activity	2 Sigma Error	MDA
			Beta	2.44E-02	2.94E-03	2.87E-03
Sample ID:	448904	Sample Dates: 7/17/2017 - 7/24/2017	Nuclide	Activity	2 Sigma Error	MDA
			Beta	3.34E-02	3.58E-03	3.05E-03
Sample ID:	449235	Sample Dates: 7/24/2017 - 7/31/2017	Nuclide	Activity	2 Sigma Error	MDA
			Beta	2.15E-02	3.37E-03	3.92E-03
Sample ID:	449956	Sample Dates: 7/31/2017 - 8/7/2017	Nuclide	Activity	2 Sigma Error	MDA
			Beta	1.99E-02	2.75E-03	2.87E-03
Sample ID:	450217	Sample Dates: 8/7/2017 - 8/14/2017	Nuclide	Activity	2 Sigma Error	MDA
			Beta	2.03E-02	3.11E-03	3.41E-03
Sample ID:	450737	Sample Dates: 8/14/2017 - 8/21/2017	Nuclide	Activity	2 Sigma Error	MDA
			Beta	2.23E-02	3.16E-03	3.30E-03
Sample ID:	451203	Sample Dates: 8/21/2017 - 8/28/2017	Nuclide	Activity	2 Sigma Error	MDA
			Beta	3.01E-02	3.17E-03	2.84E-03
Sample ID:	451547	Sample Dates: 8/28/2017 - 9/5/2017	Nuclide	Activity	2 Sigma Error	MDA
			Beta	1.62E-02	2.32E-03	2.45E-03
Sample ID:	452370	Sample Dates: 9/5/2017 - 9/11/2017	Nuclide	Activity	2 Sigma Error	MDA
			Beta	1.95E-02	3.11E-03	3.58E-03
Sample ID:	452797	Sample Dates: 9/11/2017 - 9/18/2017	Nuclide	Activity	2 Sigma Error	MDA
			Beta	2.57E-02	2.95E-03	2.72E-03
Sample ID:	453458	Sample Dates: 9/18/2017 - 9/25/2017	Nuclide	Activity	2 Sigma Error	MDA
			Beta	4.16E-02	3.97E-03	3.14E-03
Sample ID:	454228	Sample Dates: 6/26/2017 - 9/25/2017	Nuclide	Activity	2 Sigma Error	MDA
			Cs-134	<2.21E-03	0.00E+00	2.21E-03
			Cs-137	<1.60E-03	0.00E+00	1.60E-03
			Be-7	1.61E-01	4.17E-02	4.00E-02
			K-40	<3.38E-02	0.00E+00	3.38E-02
Sample ID:	454221	Sample Dates: 9/25/2017 - 10/2/2017	Nuclide	Activity	2 Sigma Error	MDA
			Beta	3.25E-02	3.61E-03	3.24E-03
Sample ID:	455085	Sample Dates: 10/2/2017 - 10/9/2017	Nuclide	Activity	2 Sigma Error	MDA
			Beta	2.16E-02	2.74E-03	2.63E-03
Sample ID:	455424	Sample Dates: 10/9/2017 - 10/16/2017	Nuclide	Activity	2 Sigma Error	MDA
			Beta	1.35E-02	2.39E-03	2.75E-03
Sample ID:	456056	Sample Dates: 10/16/2017 - 10/23/2017	Nuclide	Activity	2 Sigma Error	MDA
			Beta	3.27E-02	3.26E-03	2.79E-03
Sample ID:	461423	Sample Dates: 10/23/2017 - 10/30/2017	Nuclide	Activity	2 Sigma Error	MDA
			Beta	1.91E-02	2.61E-03	2.61E-03

MCGUIRE Radiological Environmental Monitoring Analysis Report - 2017 (Appendix E)

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

Sample Point 102 [CONTROL - WNW @ 9.89 miles]

Sample ID:	461978	Sample Dates: 10/30/2017 - 11/6/2017	Nuclide	Activity	2 Sigma Error	MDA
			Beta	3.22E-02	3.24E-03	2.83E-03
Sample ID:	462610	Sample Dates: 11/6/2017 - 11/13/2017	Nuclide	Activity	2 Sigma Error	MDA
			Beta	2.22E-02	2.99E-03	2.76E-03
Sample ID:	463106	Sample Dates: 11/13/2017 - 11/20/2017	Nuclide	Activity	2 Sigma Error	MDA
			Beta	2.81E-02	3.46E-03	3.27E-03
Sample ID:	463517	Sample Dates: 11/20/2017 - 11/27/2017	Nuclide	Activity	2 Sigma Error	MDA
			Beta	3.47E-02	3.62E-03	3.04E-03
Sample ID:	464157	Sample Dates: 11/27/2017 - 12/4/2017	Nuclide	Activity	2 Sigma Error	MDA
			Beta	3.87E-02	3.86E-03	3.30E-03
Sample ID:	464707	Sample Dates: 12/4/2017 - 12/11/2017	Nuclide	Activity	2 Sigma Error	MDA
			Beta	3.26E-02	3.71E-03	3.58E-03
Sample ID:	464980	Sample Dates: 12/11/2017 - 12/18/2017	Nuclide	Activity	2 Sigma Error	MDA
			Beta	3.34E-02	3.59E-03	3.04E-03
Sample ID:	465217	Sample Dates: 12/18/2017 - 12/26/2017	Nuclide	Activity	2 Sigma Error	MDA
			Beta	3.23E-02	3.21E-03	2.49E-03
Sample ID:	465631	Sample Dates: 9/25/2017 - 12/26/2017	Nuclide	Activity	2 Sigma Error	MDA
			Cs-134	<1.59E-03	0.00E+00	1.59E-03
			Cs-137	<1.29E-03	0.00E+00	1.29E-03
			Be-7	1.41E-01	3.43E-02	2.64E-02
			K-40	<2.86E-02	0.00E+00	2.86E-02
Sample ID:	465624	Sample Dates: 12/26/2017 - 1/2/2018	Nuclide	Activity	2 Sigma Error	MDA
			Beta	3.61E-02	3.73E-03	3.17E-03
			Cs-134	<1.19E-02	0.00E+00	1.19E-02
			Cs-137	<1.14E-02	0.00E+00	1.14E-02
			Be-7	1.71E-01	8.43E-02	1.14E-01
			K-40	<2.13E-01	0.00E+00	2.13E-01

Sample Point 103 [INDICATOR - NE @ 4.2 miles]

Sample ID:	431812	Sample Dates: 12/27/2016 - 1/3/2017	Nuclide	Activity	2 Sigma Error	MDA
			Beta	1.56E-02	2.68E-03	2.91E-03
Sample ID:	432219	Sample Dates: 1/3/2017 - 1/9/2017	Nuclide	Activity	2 Sigma Error	MDA
			Beta	1.51E-02	3.20E-03	3.95E-03
Sample ID:	432920	Sample Dates: 1/9/2017 - 1/16/2017	Nuclide	Activity	2 Sigma Error	MDA
			Beta	1.75E-02	2.67E-03	2.93E-03
Sample ID:	433317	Sample Dates: 1/16/2017 - 1/23/2017	Nuclide	Activity	2 Sigma Error	MDA
			Beta	1.45E-02	2.49E-03	2.89E-03
Sample ID:	433735	Sample Dates: 1/23/2017 - 1/30/2017	Nuclide	Activity	2 Sigma Error	MDA
			Beta	1.43E-02	2.46E-03	2.85E-03
Sample ID:	434473	Sample Dates: 1/30/2017 - 2/6/2017	Nuclide	Activity	2 Sigma Error	MDA
			Beta	2.42E-02	2.93E-03	2.85E-03
Sample ID:	435116	Sample Dates: 2/6/2017 - 2/13/2017	Nuclide	Activity	2 Sigma Error	MDA
			Beta	1.82E-02	3.00E-03	3.38E-03
Sample ID:	435823	Sample Dates: 2/13/2017 - 2/20/2017	Nuclide	Activity	2 Sigma Error	MDA
			Beta	1.94E-02	3.03E-03	3.21E-03
Sample ID:	436274	Sample Dates: 2/20/2017 - 2/27/2017	Nuclide	Activity	2 Sigma Error	MDA
			Beta	1.77E-02	2.63E-03	2.84E-03
Sample ID:	436728	Sample Dates: 2/27/2017 - 3/6/2017	Nuclide	Activity	2 Sigma Error	MDA
			Beta	1.76E-02	2.94E-03	3.29E-03
Sample ID:	437591	Sample Dates: 3/6/2017 - 3/13/2017	Nuclide	Activity	2 Sigma Error	MDA
			Beta	1.94E-02	3.07E-03	3.41E-03
Sample ID:	438315	Sample Dates: 3/13/2017 - 3/20/2017	Nuclide	Activity	2 Sigma Error	MDA
			Beta	1.66E-02	2.53E-03	2.70E-03

MCGUIRE Radiological Environmental Monitoring Analysis Report - 2017 (Appendix E)

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

Sample Point 103 [INDICATOR - NE @ 4.2 miles]

Sample ID:	Sample Dates:	Nuclide	Activity	2 Sigma Error	MDA
438819	3/20/2017 - 3/27/2017	Beta	1.93E-02	3.07E-03	3.45E-03
439193	12/27/2016 - 3/27/2017	Cs-134	<4.73E-04	0.00E+00	4.73E-04
		Cs-137	<6.05E-04	0.00E+00	6.05E-04
		Be-7	1.49E-01	2.30E-02	8.64E-03
		K-40	<1.48E-02	0.00E+00	1.48E-02
439186	3/27/2017 - 4/3/2017	Beta	1.18E-02	2.63E-03	3.26E-03
440018	4/3/2017 - 4/10/2017	Beta	1.40E-02	2.91E-03	3.69E-03
440612	4/10/2017 - 4/17/2017	Beta	2.31E-02	3.20E-03	3.30E-03
441427	4/17/2017 - 4/24/2017	Beta	1.48E-02	2.40E-03	2.62E-03
441874	4/24/2017 - 5/1/2017	Beta	1.21E-02	2.99E-03	4.03E-03
442324	5/1/2017 - 5/8/2017	Beta	1.65E-02	2.50E-03	2.61E-03
442881	5/8/2017 - 5/15/2017	Beta	2.15E-02	3.06E-03	3.11E-03
443320	5/15/2017 - 5/22/2017	Beta	1.79E-02	2.73E-03	3.11E-03
443870	5/22/2017 - 5/30/2017	Beta	1.48E-02	2.52E-03	2.74E-03
444279	5/30/2017 - 6/5/2017	Beta	2.68E-02	3.33E-03	3.28E-03
445337	6/5/2017 - 6/12/2017	Beta	1.38E-02	2.52E-03	3.02E-03
446341	6/12/2017 - 6/19/2017	Beta	1.56E-02	2.57E-03	2.97E-03
446837	6/19/2017 - 6/26/2017	Beta	1.44E-02	2.53E-03	2.96E-03
447207	3/27/2017 - 6/26/2017	Cs-134	<5.67E-04	0.00E+00	5.67E-04
		Cs-137	<4.50E-04	0.00E+00	4.50E-04
		Be-7	1.49E-01	2.40E-02	9.29E-03
		K-40	<1.28E-02	0.00E+00	1.28E-02
447200	6/26/2017 - 7/3/2017	Beta	1.79E-02	2.98E-03	3.29E-03
447819	7/3/2017 - 7/10/2017	Beta	1.64E-02	2.95E-03	3.43E-03
448291	7/10/2017 - 7/17/2017	Beta	1.71E-02	2.59E-03	2.84E-03
448905	7/17/2017 - 7/24/2017	Beta	3.49E-02	3.67E-03	3.10E-03
449236	7/24/2017 - 7/31/2017	Beta	2.19E-02	3.38E-03	3.92E-03
449957	7/31/2017 - 8/7/2017	Beta	2.08E-02	2.78E-03	2.87E-03
450218	8/7/2017 - 8/14/2017	Beta	1.87E-02	3.02E-03	3.38E-03

MCGUIRE Radiological Environmental Monitoring Analysis Report - 2017 (Appendix E)

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

Sample Point 103 [INDICATOR - NE @ 4.2 miles]

Sample ID:	Sample Dates:	Nuclide	Activity	2 Sigma Error	MDA
450738	8/14/2017 - 8/21/2017	Beta	1.89E-02	3.02E-03	3.34E-03
451204	8/21/2017 - 8/28/2017	Beta	2.83E-02	3.09E-03	2.83E-03
451548	8/28/2017 - 9/5/2017	Beta	1.43E-02	2.23E-03	2.45E-03
452371	9/5/2017 - 9/11/2017	Beta	1.78E-02	3.01E-03	3.54E-03
452798	9/11/2017 - 9/18/2017	Beta	2.28E-02	2.85E-03	2.75E-03
453459	9/18/2017 - 9/25/2017	Beta	3.76E-02	3.82E-03	3.14E-03
454229	6/26/2017 - 9/25/2017	Cs-134	<2.42E-03	0.00E+00	2.42E-03
		Cs-137	<1.89E-03	0.00E+00	1.89E-03
		Be-7	1.40E-01	4.15E-02	4.61E-02
		K-40	<3.69E-02	0.00E+00	3.69E-02
454222	9/25/2017 - 10/2/2017	Beta	2.99E-02	3.49E-03	3.24E-03
455086	10/2/2017 - 10/9/2017	Beta	1.65E-02	2.48E-03	2.60E-03
455425	10/9/2017 - 10/16/2017	Beta	1.23E-02	2.35E-03	2.78E-03
456057	10/16/2017 - 10/23/2017	Beta	2.79E-02	3.07E-03	2.78E-03
461424	10/23/2017 - 10/30/2017	Beta	1.59E-02	2.47E-03	2.61E-03
461979	10/30/2017 - 11/6/2017	Beta	2.59E-02	2.98E-03	2.80E-03
462611	11/6/2017 - 11/13/2017	Beta	2.19E-02	3.00E-03	2.78E-03
463107	11/13/2017 - 11/20/2017	Beta	2.89E-02	3.49E-03	3.27E-03
463518	11/20/2017 - 11/27/2017	Beta	3.14E-02	3.49E-03	3.05E-03
464158	11/27/2017 - 12/4/2017	Beta	3.60E-02	3.73E-03	3.26E-03
464708	12/4/2017 - 12/11/2017	Beta	2.44E-02	3.39E-03	3.62E-03
464981	12/11/2017 - 12/18/2017	Beta	3.41E-02	3.61E-03	3.04E-03
465218	12/18/2017 - 12/26/2017	Beta	2.44E-02	2.87E-03	2.49E-03
465632	9/25/2017 - 12/26/2017	Cs-134	<1.68E-03	0.00E+00	1.68E-03
		Cs-137	<1.75E-03	0.00E+00	1.75E-03
		Be-7	1.43E-01	3.89E-02	4.15E-02
		K-40	<2.65E-02	0.00E+00	2.65E-02
465625	12/26/2017 - 1/2/2018	Beta	3.17E-02	3.52E-03	3.13E-03
		Cs-134	<1.21E-02	0.00E+00	1.21E-02
		Cs-137	<1.21E-02	0.00E+00	1.21E-02
		Be-7	1.37E-01	5.57E-02	9.74E-02
		K-40	2.12E-01	1.23E-01	1.56E-01

Sample ID:	Sample Dates:	Nuclide	Activity	2 Sigma Error	MDA
431813	12/27/2016 - 1/3/2017	Beta	1.65E-02	2.69E-03	2.85E-03
432220	1/3/2017 - 1/9/2017	Beta	2.27E-02	3.65E-03	4.03E-03
432921	1/9/2017 - 1/16/2017	Beta	1.97E-02	2.76E-03	2.94E-03
433318	1/16/2017 - 1/23/2017	Beta	1.68E-02	2.61E-03	2.89E-03
433736	1/23/2017 - 1/30/2017	Beta	1.74E-02	2.57E-03	2.79E-03
434474	1/30/2017 - 2/6/2017	Beta	2.56E-02	3.04E-03	2.91E-03
435117	2/6/2017 - 2/13/2017	Beta	2.38E-02	3.30E-03	3.42E-03
435824	2/13/2017 - 2/20/2017	Beta	1.84E-02	2.97E-03	3.20E-03
436275	2/20/2017 - 2/27/2017	Beta	1.99E-02	2.69E-03	2.79E-03
436729	2/27/2017 - 3/6/2017	Beta	2.23E-02	3.21E-03	3.35E-03
437592	3/6/2017 - 3/13/2017	Beta	1.97E-02	3.10E-03	3.42E-03
438316	3/13/2017 - 3/20/2017	Beta	1.90E-02	2.65E-03	2.70E-03
438820	3/20/2017 - 3/27/2017	Beta	2.34E-02	3.22E-03	3.38E-03
439194	12/27/2016 - 3/27/2017	Cs-134	<4.39E-04	0.00E+00	4.39E-04
		Cs-137	<4.49E-04	0.00E+00	4.49E-04
		Be-7	1.64E-01	2.40E-02	1.16E-02
		K-40	9.94E-03	6.65E-03	8.52E-03
439187	3/27/2017 - 4/3/2017	Beta	1.21E-02	2.67E-03	3.29E-03
440019	4/3/2017 - 4/10/2017	Beta	1.20E-02	2.85E-03	3.74E-03
440613	4/10/2017 - 4/17/2017	Beta	1.96E-02	3.03E-03	3.29E-03
441428	4/17/2017 - 4/24/2017	Beta	1.49E-02	2.38E-03	2.58E-03
441875	4/24/2017 - 5/1/2017	Beta	1.27E-02	2.93E-03	3.88E-03
442325	5/1/2017 - 5/8/2017	Beta	1.39E-02	2.37E-03	2.61E-03
442882	5/8/2017 - 5/15/2017	Beta	2.39E-02	3.18E-03	3.11E-03
443321	5/15/2017 - 5/22/2017	Beta	2.62E-02	3.05E-03	3.05E-03
443871	5/22/2017 - 5/30/2017	Beta	1.52E-02	2.56E-03	2.79E-03
444280	5/30/2017 - 6/5/2017	Beta	2.55E-02	3.27E-03	3.28E-03

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MCGUIRE Radiological Environmental Monitoring Analysis Report - 2017 (Appendix E)

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

Sample Point 120 [INDICATOR - NNE @ 0.46 miles]

Sample ID:	Sample Dates:	Nuclide	Activity	2 Sigma Error	MDA
445338	6/5/2017 - 6/12/2017	Beta	1.52E-02	2.59E-03	3.02E-03
446342	6/12/2017 - 6/19/2017	Beta	1.87E-02	2.68E-03	2.92E-03
446838	6/19/2017 - 6/26/2017	Beta	1.58E-02	2.64E-03	3.02E-03
447208	3/27/2017 - 6/26/2017	Cs-134	<6.77E-04	0.00E+00	6.77E-04
		Cs-137	<5.36E-04	0.00E+00	5.36E-04
		Be-7	1.61E-01	2.37E-02	1.04E-02
		K-40	<1.18E-02	0.00E+00	1.18E-02
447201	6/26/2017 - 7/3/2017	Beta	2.14E-02	3.15E-03	3.29E-03
447820	7/3/2017 - 7/10/2017	Beta	1.80E-02	3.04E-03	3.44E-03
448292	7/10/2017 - 7/17/2017	Beta	2.24E-02	2.80E-03	2.78E-03
448906	7/17/2017 - 7/24/2017	Beta	3.39E-02	3.68E-03	3.16E-03
449237	7/24/2017 - 7/31/2017	Beta	2.17E-02	3.37E-03	3.93E-03
449958	7/31/2017 - 8/7/2017	Beta	2.01E-02	2.76E-03	2.88E-03
450219	8/7/2017 - 8/14/2017	Beta	1.74E-02	2.89E-03	3.28E-03
450739	8/14/2017 - 8/21/2017	Beta	2.28E-02	3.28E-03	3.45E-03
451205	8/21/2017 - 8/28/2017	Beta	2.65E-02	3.02E-03	2.83E-03
451549	8/28/2017 - 9/5/2017	Beta	1.61E-02	2.31E-03	2.45E-03
452372	9/5/2017 - 9/11/2017	Beta	1.94E-02	3.04E-03	3.47E-03
452799	9/11/2017 - 9/18/2017	Beta	2.19E-02	2.84E-03	2.80E-03
453460	9/18/2017 - 9/25/2017	Beta	3.49E-02	3.71E-03	3.15E-03
454230	6/26/2017 - 9/25/2017	Cs-134	<1.21E-03	0.00E+00	1.21E-03
		Cs-137	<1.39E-03	0.00E+00	1.39E-03
		Be-7	1.45E-01	3.50E-02	2.47E-02
		K-40	<2.80E-02	0.00E+00	2.80E-02
454223	9/25/2017 - 10/2/2017	Beta	2.72E-02	3.35E-03	3.21E-03
455087	10/2/2017 - 10/9/2017	Beta	1.81E-02	2.55E-03	2.58E-03
455426	10/9/2017 - 10/16/2017	Beta	1.37E-02	2.46E-03	2.84E-03
456058	10/16/2017 - 10/23/2017	Beta	2.86E-02	3.09E-03	2.78E-03
461425	10/23/2017 - 10/30/2017	Beta	1.79E-02	2.56E-03	2.61E-03

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

Sample Point 120 [INDICATOR - NNE @ 0.46 miles]

Sample ID:	Sample Dates:	Nuclide	Activity	2 Sigma Error	MDA
461980	10/30/2017 - 11/6/2017	Beta	2.79E-02	3.01E-03	2.74E-03
462612	11/6/2017 - 11/13/2017	Beta	1.84E-02	2.85E-03	2.85E-03
463108	11/13/2017 - 11/20/2017	Beta	2.82E-02	3.46E-03	3.27E-03
463519	11/20/2017 - 11/27/2017	Beta	3.24E-02	3.52E-03	3.04E-03
464159	11/27/2017 - 12/4/2017	Beta	3.54E-02	3.67E-03	3.21E-03
464709	12/4/2017 - 12/11/2017	Beta	2.73E-02	3.56E-03	3.69E-03
464982	12/11/2017 - 12/18/2017	Beta	3.23E-02	3.54E-03	3.04E-03
465219	12/18/2017 - 12/26/2017	Beta	3.00E-02	3.12E-03	2.49E-03
465633	9/25/2017 - 12/26/2017	Cs-134	<1.48E-03	0.00E+00	1.48E-03
		Cs-137	<1.47E-03	0.00E+00	1.47E-03
		Be-7	1.67E-01	4.14E-02	3.98E-02
		K-40	1.71E-02	1.09E-02	4.63E-03
465626	12/26/2017 - 1/2/2018	Beta	3.49E-02	3.60E-03	3.06E-03
		Cs-134	<1.10E-02	0.00E+00	1.10E-02
		Cs-137	<9.42E-03	0.00E+00	9.42E-03
		Be-7	1.82E-01	7.31E-02	8.69E-02
		K-40	<2.08E-01	0.00E+00	2.08E-01

Sample Point 121 [INDICATOR - NE @ 0.47 miles]

Sample ID:	Sample Dates:	Nuclide	Activity	2 Sigma Error	MDA
431814	12/27/2016 - 1/3/2017	Beta	1.60E-02	2.67E-03	2.86E-03
432221	1/3/2017 - 1/9/2017	Beta	1.67E-02	3.33E-03	4.02E-03
432922	1/9/2017 - 1/16/2017	Beta	1.83E-02	2.70E-03	2.93E-03
433319	1/16/2017 - 1/23/2017	Beta	1.46E-02	2.50E-03	2.89E-03
433737	1/23/2017 - 1/30/2017	Beta	1.77E-02	2.59E-03	2.80E-03
434475	1/30/2017 - 2/6/2017	Beta	2.59E-02	3.04E-03	2.90E-03
435118	2/6/2017 - 2/13/2017	Beta	2.03E-02	3.13E-03	3.42E-03
435825	2/13/2017 - 2/20/2017	Beta	2.03E-02	3.07E-03	3.20E-03
436276	2/20/2017 - 2/27/2017	Beta	1.98E-02	2.70E-03	2.79E-03
436730	2/27/2017 - 3/6/2017	Beta	2.26E-02	3.22E-03	3.35E-03
437593	3/6/2017 - 3/13/2017	Beta	1.96E-02	3.08E-03	3.42E-03
438317	3/13/2017 - 3/20/2017	Beta	2.08E-02	2.73E-03	2.70E-03

MCGUIRE Radiological Environmental Monitoring Analysis Report - 2017 (Appendix E)

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

Sample Point 121 [INDICATOR - NE @ 0.47 miles]

Sample ID:	Sample Dates:	Nuclide	Activity	2 Sigma Error	MDA
438821	3/20/2017 - 3/27/2017	Beta	2.23E-02	3.17E-03	3.39E-03
439195	12/27/2016 - 3/27/2017	Cs-134	<5.70E-04	0.00E+00	5.70E-04
		Cs-137	<2.77E-04	0.00E+00	2.77E-04
		Be-7	1.70E-01	2.51E-02	1.29E-02
		K-40	<1.06E-02	0.00E+00	1.06E-02
439188	3/27/2017 - 4/3/2017	Beta	1.12E-02	2.61E-03	3.28E-03
440020	4/3/2017 - 4/10/2017	Beta	1.34E-02	2.91E-03	3.74E-03
440614	4/10/2017 - 4/17/2017	Beta	2.40E-02	3.24E-03	3.29E-03
441429	4/17/2017 - 4/24/2017	Beta	1.68E-02	2.48E-03	2.58E-03
441876	4/24/2017 - 5/1/2017	Beta	1.12E-02	2.92E-03	3.99E-03
442326	5/1/2017 - 5/8/2017	Beta	1.70E-02	2.53E-03	2.62E-03
442883	5/8/2017 - 5/15/2017	Beta	2.60E-02	3.28E-03	3.11E-03
443322	5/15/2017 - 5/22/2017	Beta	2.40E-02	2.96E-03	3.06E-03
443872	5/22/2017 - 5/30/2017	Beta	1.54E-02	2.57E-03	2.78E-03
444281	5/30/2017 - 6/5/2017	Beta	2.76E-02	3.37E-03	3.28E-03
445339	6/5/2017 - 6/12/2017	Beta	1.55E-02	2.60E-03	3.02E-03
446343	6/12/2017 - 6/19/2017	Beta	1.84E-02	2.67E-03	2.92E-03
446839	6/19/2017 - 6/26/2017	Beta	1.44E-02	2.56E-03	3.01E-03
447209	3/27/2017 - 6/26/2017	Cs-134	<4.70E-04	0.00E+00	4.70E-04
		Cs-137	<6.01E-04	0.00E+00	6.01E-04
		Be-7	1.61E-01	2.48E-02	1.26E-02
		K-40	<1.33E-02	0.00E+00	1.33E-02
447202	6/26/2017 - 7/3/2017	Beta	2.28E-02	3.22E-03	3.29E-03
447821	7/3/2017 - 7/10/2017	Beta	1.68E-02	2.98E-03	3.44E-03
448293	7/10/2017 - 7/17/2017	Beta	2.51E-02	2.91E-03	2.79E-03
448907	7/17/2017 - 7/24/2017	Beta	3.87E-02	3.86E-03	3.15E-03
449238	7/24/2017 - 7/31/2017	Beta	2.32E-02	3.45E-03	3.92E-03
449959	7/31/2017 - 8/7/2017	Beta	2.08E-02	2.77E-03	2.86E-03
450220	8/7/2017 - 8/14/2017	Beta	2.14E-02	3.10E-03	3.31E-03

MCGUIRE Radiological Environmental Monitoring Analysis Report - 2017 (Appendix E)

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

Sample Point 121 [INDICATOR - NE @ 0.47 miles]

Sample ID:	Sample Dates:	Nuclide	Activity	2 Sigma Error	MDA
450740	8/14/2017 - 8/21/2017	Beta	2.17E-02	3.20E-03	3.41E-03
451206	8/21/2017 - 8/28/2017	Beta	2.92E-02	3.13E-03	2.83E-03
451550	8/28/2017 - 9/5/2017	Beta	1.58E-02	2.30E-03	2.45E-03
452373	9/5/2017 - 9/11/2017	Beta	1.91E-02	3.03E-03	3.48E-03
452800	9/11/2017 - 9/18/2017	Beta	2.45E-02	2.95E-03	2.80E-03
453461	9/18/2017 - 9/25/2017	Beta	3.93E-02	3.89E-03	3.14E-03
454231	6/26/2017 - 9/25/2017	Cs-134	<1.89E-03	0.00E+00	1.89E-03
		Cs-137	<8.00E-04	0.00E+00	8.00E-04
		Be-7	1.45E-01	3.82E-02	3.60E-02
		K-40	<2.77E-02	0.00E+00	2.77E-02
454224	9/25/2017 - 10/2/2017	Beta	2.72E-02	3.35E-03	3.21E-03
455088	10/2/2017 - 10/9/2017	Beta	2.02E-02	2.64E-03	2.58E-03
455427	10/9/2017 - 10/16/2017	Beta	1.29E-02	2.41E-03	2.84E-03
456059	10/16/2017 - 10/23/2017	Beta	3.22E-02	3.23E-03	2.78E-03
461426	10/23/2017 - 10/30/2017	Beta	1.46E-02	2.40E-03	2.61E-03
461981	10/30/2017 - 11/6/2017	Beta	3.07E-02	3.12E-03	2.74E-03
462613	11/6/2017 - 11/13/2017	Beta	2.03E-02	2.95E-03	2.84E-03
463109	11/13/2017 - 11/20/2017	Beta	2.77E-02	3.44E-03	3.27E-03
463520	11/20/2017 - 11/27/2017	Beta	3.16E-02	3.50E-03	3.04E-03
464160	11/27/2017 - 12/4/2017	Beta	3.55E-02	3.68E-03	3.22E-03
464710	12/4/2017 - 12/11/2017	Beta	2.70E-02	3.54E-03	3.68E-03
464983	12/11/2017 - 12/18/2017	Beta	3.28E-02	3.55E-03	3.04E-03
465220	12/18/2017 - 12/26/2017	Beta	2.83E-02	3.05E-03	2.49E-03
465634	9/25/2017 - 12/26/2017	Cs-134	<9.60E-04	0.00E+00	9.60E-04
		Cs-137	<1.40E-03	0.00E+00	1.40E-03
		Be-7	1.60E-01	3.65E-02	2.72E-02
		K-40	<2.26E-02	0.00E+00	2.26E-02
465627	12/26/2017 - 1/2/2018	Beta	3.44E-02	3.58E-03	3.07E-03
		Cs-134	<1.22E-02	0.00E+00	1.22E-02
		Cs-137	<9.45E-03	0.00E+00	9.45E-03
		Be-7	1.84E-01	1.24E+00	1.08E-01
		K-40	1.59E-01	8.87E-02	9.13E-02

MCGUIRE Radiological Environmental Monitoring Analysis Report - 2017 (Appendix E)

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

Sample Point 125 [INDICATOR - SW @ 0.38 miles]

Sample ID:	Sample Dates:	Nuclide	Activity	2 Sigma Error	MDA
431815	12/27/2016 - 1/3/2017	Beta	1.60E-02	2.93E-03	3.27E-03
432222	1/3/2017 - 1/9/2017	Beta	1.88E-02	3.45E-03	4.02E-03
432923	1/9/2017 - 1/16/2017	Beta	1.90E-02	2.74E-03	2.93E-03
433320	1/16/2017 - 1/23/2017	Beta	1.80E-02	2.66E-03	2.89E-03
433738	1/23/2017 - 1/30/2017	Beta	1.95E-02	2.68E-03	2.80E-03
434476	1/30/2017 - 2/6/2017	Beta	2.89E-02	3.17E-03	2.90E-03
435119	2/6/2017 - 2/13/2017	Beta	2.48E-02	3.32E-03	3.38E-03
435826	2/13/2017 - 2/20/2017	Beta	1.71E-02	2.91E-03	3.21E-03
436277	2/20/2017 - 2/27/2017	Beta	1.98E-02	2.69E-03	2.79E-03
436731	2/27/2017 - 3/6/2017	Beta	2.44E-02	3.31E-03	3.35E-03
437594	3/6/2017 - 3/13/2017	Beta	1.86E-02	3.04E-03	3.41E-03
438318	3/13/2017 - 3/20/2017	Beta	2.11E-02	2.75E-03	2.70E-03
438822	3/20/2017 - 3/27/2017	Beta	2.14E-02	3.14E-03	3.39E-03
439196	12/27/2016 - 3/27/2017	Cs-134	<7.47E-04	0.00E+00	7.47E-04
		Cs-137	<6.31E-04	0.00E+00	6.31E-04
		Be-7	1.91E-01	2.82E-02	1.38E-02
		K-40	<1.10E-02	0.00E+00	1.10E-02
439189	3/27/2017 - 4/3/2017	Beta	1.41E-02	2.78E-03	3.29E-03
440021	4/3/2017 - 4/10/2017	Beta	1.41E-02	2.95E-03	3.73E-03
440615	4/10/2017 - 4/17/2017	Beta	2.19E-02	3.15E-03	3.30E-03
441430	4/17/2017 - 4/24/2017	Beta	1.63E-02	2.46E-03	2.58E-03
441877	4/24/2017 - 5/1/2017	Beta	9.39E-03	2.22E-03	2.85E-03
442327	5/1/2017 - 5/8/2017	Beta	1.04E-02	2.17E-03	2.61E-03
442884	5/8/2017 - 5/15/2017	Beta	1.24E-02	2.58E-03	3.11E-03
443323	5/15/2017 - 5/22/2017	Beta	1.51E-02	2.57E-03	3.06E-03
443873	5/22/2017 - 5/30/2017	Beta	9.24E-03	2.22E-03	2.78E-03
444282	5/30/2017 - 6/5/2017	Beta	1.51E-02	2.78E-03	3.28E-03

MCGUIRE Radiological Environmental Monitoring Analysis Report - 2017 (Appendix E)

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

Sample Point 125 [INDICATOR - SW @ 0.38 miles]

Sample ID:	Sample Dates:	Nuclide	Activity	2 Sigma Error	MDA
445340	6/5/2017 - 6/12/2017	Beta	8.87E-03	2.26E-03	3.02E-03
446344	6/12/2017 - 6/19/2017	Beta	1.01E-02	2.27E-03	2.92E-03
446840	6/19/2017 - 6/26/2017	Beta	7.25E-03	2.17E-03	3.01E-03
447210	3/27/2017 - 6/26/2017	Cs-134	<3.46E-04	0.00E+00	3.46E-04
		Cs-137	<4.87E-04	0.00E+00	4.87E-04
		Be-7	1.15E-01	1.89E-02	9.36E-03
		K-40	<1.39E-02	0.00E+00	1.39E-02
447203	6/26/2017 - 7/3/2017	Beta	1.20E-02	2.66E-03	3.29E-03
447822	7/3/2017 - 7/10/2017	Beta	1.12E-02	2.66E-03	3.44E-03
448294	7/10/2017 - 7/17/2017	Beta	1.06E-02	2.23E-03	2.79E-03
448908	7/17/2017 - 7/24/2017	Beta	2.13E-02	3.09E-03	3.14E-03
449239	7/24/2017 - 7/31/2017	Beta	1.23E-02	2.93E-03	3.92E-03
449960	7/31/2017 - 8/7/2017	Beta	1.18E-02	2.34E-03	2.87E-03
450221	8/7/2017 - 8/14/2017	Beta	1.10E-02	2.57E-03	3.31E-03
450741	8/14/2017 - 8/21/2017	Beta	2.17E-02	3.21E-03	3.41E-03
451207	8/21/2017 - 8/28/2017	Beta	2.74E-02	3.06E-03	2.83E-03
451551	8/28/2017 - 9/5/2017	Beta	1.51E-02	2.27E-03	2.45E-03
452374	9/5/2017 - 9/11/2017	Beta	1.58E-02	2.88E-03	3.48E-03
452801	9/11/2017 - 9/18/2017	Beta	2.24E-02	2.86E-03	2.80E-03
453462	9/18/2017 - 9/25/2017	Beta	4.22E-02	3.99E-03	3.14E-03
454232	6/26/2017 - 9/25/2017	Cs-134	<2.01E-03	0.00E+00	2.01E-03
		Cs-137	<1.40E-03	0.00E+00	1.40E-03
		Be-7	1.12E-01	3.56E-02	3.80E-02
		K-40	<3.61E-02	0.00E+00	3.61E-02
454225	9/25/2017 - 10/2/2017	Beta	2.82E-02	3.40E-03	3.21E-03
455089	10/2/2017 - 10/9/2017	Beta	2.03E-02	2.65E-03	2.58E-03
455428	10/9/2017 - 10/16/2017	Beta	1.58E-02	2.56E-03	2.84E-03
456060	10/16/2017 - 10/23/2017	Beta	3.09E-02	3.18E-03	2.78E-03
461427	10/23/2017 - 10/30/2017	Beta	1.77E-02	2.55E-03	2.61E-03

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

Sample Point 125 [INDICATOR - SW @ 0.38 miles]

Sample ID:	Sample Dates	Nuclide	Activity	2 Sigma Error	MDA
461982	10/30/2017 - 11/6/2017	Beta	2.80E-02	3.03E-03	2.75E-03
462614	11/6/2017 - 11/13/2017	Beta	2.21E-02	3.04E-03	2.84E-03
463110	11/13/2017 - 11/20/2017	Beta	2.99E-02	3.54E-03	3.27E-03
463521	11/20/2017 - 11/27/2017	Beta	3.33E-02	3.57E-03	3.04E-03
464161	11/27/2017 - 12/4/2017	Beta	3.92E-02	3.82E-03	3.21E-03
464711	12/4/2017 - 12/11/2017	Beta	2.79E-02	3.58E-03	3.68E-03
464984	12/11/2017 - 12/18/2017	Beta	3.42E-02	3.62E-03	3.04E-03
465221	12/18/2017 - 12/26/2017	Beta	3.10E-02	3.16E-03	2.49E-03
465635	9/25/2017 - 12/26/2017	Cs-134	<1.76E-03	0.00E+00	1.76E-03
		Cs-137	<1.11E-03	0.00E+00	1.11E-03
		Be-7	1.50E-01	3.68E-02	2.75E-02
		K-40	<2.54E-02	0.00E+00	2.54E-02
465628	12/26/2017 - 1/2/2018	Beta	3.64E-02	3.66E-03	3.07E-03
		Cs-134	<1.41E-02	0.00E+00	1.41E-02
		Cs-137	<1.15E-02	0.00E+00	1.15E-02
		Be-7	1.45E-01	8.79E-02	1.29E-01
		K-40	2.95E-01	1.29E-01	1.30E-01

Sample Point 133 [INDICATOR - ENE @ 6.23 miles]

Sample ID:	Sample Dates	Nuclide	Activity	2 Sigma Error	MDA
431816	12/27/2016 - 1/3/2017	Beta	1.78E-02	2.79E-03	2.91E-03
432223	1/3/2017 - 1/9/2017	Beta	2.14E-02	3.54E-03	3.94E-03
432924	1/9/2017 - 1/16/2017	Beta	1.91E-02	2.74E-03	2.93E-03
433321	1/16/2017 - 1/23/2017	Beta	1.45E-02	2.50E-03	2.89E-03
433739	1/23/2017 - 1/30/2017	Beta	1.49E-02	2.50E-03	2.85E-03
434477	1/30/2017 - 2/6/2017	Beta	2.49E-02	2.97E-03	2.85E-03
435120	2/6/2017 - 2/13/2017	Beta	2.06E-02	3.11E-03	3.38E-03
435827	2/13/2017 - 2/20/2017	Beta	1.69E-02	2.90E-03	3.21E-03
436278	2/20/2017 - 2/27/2017	Beta	1.78E-02	2.63E-03	2.84E-03
436732	2/27/2017 - 3/6/2017	Beta	1.95E-02	3.03E-03	3.29E-03
437595	3/6/2017 - 3/13/2017	Beta	2.02E-02	3.11E-03	3.41E-03
438319	3/13/2017 - 3/20/2017	Beta	2.05E-02	2.72E-03	2.70E-03

MCGUIRE Radiological Environmental Monitoring Analysis Report - 2017 (Appendix E)

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

Sample Point 133 [INDICATOR - ENE @ 6.23 miles]

Sample ID:	Sample Dates:	Nuclide	Activity	2 Sigma Error	MDA
438823	3/20/2017 - 3/27/2017	Beta	2.33E-02	3.25E-03	3.45E-03
439197	12/27/2016 - 3/27/2017	Cs-134	<3.67E-04	0.00E+00	3.67E-04
		Cs-137	<4.74E-04	0.00E+00	4.74E-04
		Be-7	1.76E-01	2.63E-02	1.15E-02
		K-40	1.31E-02	6.14E-03	1.87E-03
439190	3/27/2017 - 4/3/2017	Beta	1.39E-02	2.75E-03	3.26E-03
440022	4/3/2017 - 4/10/2017	Beta	1.37E-02	2.91E-03	3.70E-03
440616	4/10/2017 - 4/17/2017	Beta	2.72E-02	3.39E-03	3.29E-03
441431	4/17/2017 - 4/24/2017	Beta	1.59E-02	2.46E-03	2.63E-03
441878	4/24/2017 - 5/1/2017	Beta	1.29E-02	2.96E-03	3.92E-03
442328	5/1/2017 - 5/8/2017	Beta	1.57E-02	2.46E-03	2.61E-03
442885	5/8/2017 - 5/15/2017	Beta	2.01E-02	2.99E-03	3.11E-03
443324	5/15/2017 - 5/22/2017	Beta	2.66E-02	3.10E-03	3.11E-03
443874	5/22/2017 - 5/30/2017	Beta	1.36E-02	2.45E-03	2.74E-03
444283	5/30/2017 - 6/5/2017	Beta	2.58E-02	3.29E-03	3.28E-03
445341	6/5/2017 - 6/12/2017	Beta	1.53E-02	2.59E-03	3.02E-03
446345	6/12/2017 - 6/19/2017	Beta	1.89E-02	2.73E-03	2.97E-03
446841	6/19/2017 - 6/26/2017	Beta	1.57E-02	2.59E-03	2.96E-03
447211	3/27/2017 - 6/26/2017	Cs-134	<5.08E-04	0.00E+00	5.08E-04
		Cs-137	<5.92E-04	0.00E+00	5.92E-04
		Be-7	1.62E-01	2.38E-02	8.20E-03
		K-40	<1.15E-02	0.00E+00	1.15E-02
447204	6/26/2017 - 7/3/2017	Beta	1.81E-02	2.99E-03	3.29E-03
447823	7/3/2017 - 7/10/2017	Beta	1.59E-02	2.92E-03	3.44E-03
448295	7/10/2017 - 7/17/2017	Beta	2.31E-02	2.87E-03	2.84E-03
448909	7/17/2017 - 7/24/2017	Beta	3.20E-02	3.55E-03	3.09E-03
449240	7/24/2017 - 7/31/2017	Beta	2.23E-02	3.40E-03	3.92E-03
449961	7/31/2017 - 8/7/2017	Beta	2.27E-02	2.86E-03	2.87E-03
450222	8/7/2017 - 8/14/2017	Beta	2.05E-02	3.11E-03	3.38E-03

MCGUIRE Radiological Environmental Monitoring Analysis Report - 2017 (Appendix E)

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

Sample Point 133 [INDICATOR - ENE @ 6.23 miles]

Sample ID:	Sample Dates:	Nuclide	Activity	2 Sigma Error	MDA
450742	8/14/2017 - 8/21/2017	Beta	2.37E-02	3.26E-03	3.34E-03
451208	8/21/2017 - 8/28/2017	Beta	2.80E-02	3.09E-03	2.83E-03
451552	8/28/2017 - 9/5/2017	Beta	1.59E-02	2.31E-03	2.45E-03
452375	9/5/2017 - 9/11/2017	Beta	1.80E-02	3.02E-03	3.54E-03
452802	9/11/2017 - 9/18/2017	Beta	2.35E-02	2.88E-03	2.75E-03
453463	9/18/2017 - 9/25/2017	Beta	4.16E-02	3.97E-03	3.14E-03
454233	6/26/2017 - 9/25/2017	Cs-134	<1.63E-03	0.00E+00	1.63E-03
		Cs-137	<1.33E-03	0.00E+00	1.33E-03
		Be-7	1.42E-01	3.61E-02	2.94E-02
		K-40	<2.52E-02	0.00E+00	2.52E-02
454226	9/25/2017 - 10/2/2017	Beta	2.75E-02	3.39E-03	3.24E-03
455090	10/2/2017 - 10/9/2017	Beta	2.07E-02	2.69E-03	2.60E-03
455429	10/9/2017 - 10/16/2017	Beta	1.35E-02	2.41E-03	2.78E-03
456061	10/16/2017 - 10/23/2017	Beta	3.11E-02	3.19E-03	2.78E-03
461428	10/23/2017 - 10/30/2017	Beta	1.88E-02	2.60E-03	2.61E-03
461983	10/30/2017 - 11/6/2017	Beta	2.87E-02	3.08E-03	2.80E-03
462615	11/6/2017 - 11/13/2017	Beta	2.02E-02	2.91E-03	2.78E-03
463111	11/13/2017 - 11/20/2017	Beta	2.81E-02	3.46E-03	3.27E-03
463522	11/20/2017 - 11/27/2017	Beta	2.66E-02	3.28E-03	3.04E-03
464162	11/27/2017 - 12/4/2017	Beta	3.43E-02	3.67E-03	3.27E-03
464712	12/4/2017 - 12/11/2017	Beta	2.79E-02	3.54E-03	3.62E-03
464985	12/11/2017 - 12/18/2017	Beta	3.08E-02	3.47E-03	3.04E-03
465222	12/18/2017 - 12/26/2017	Beta	2.88E-02	3.07E-03	2.50E-03
465636	9/25/2017 - 12/26/2017	Cs-134	<1.75E-03	0.00E+00	1.75E-03
		Cs-137	<1.31E-03	0.00E+00	1.31E-03
		Be-7	1.60E-01	3.76E-02	3.03E-02
		K-40	<2.18E-02	0.00E+00	2.18E-02
465629	12/26/2017 - 1/2/2018	Beta	3.32E-02	3.57E-03	3.12E-03
		Cs-134	<1.25E-02	0.00E+00	1.25E-02
		Cs-137	<8.41E-03	0.00E+00	8.41E-03
		Be-7	1.60E-01	9.16E-02	1.34E-01
		K-40	<1.72E-01	0.00E+00	1.72E-01

MCGUIRE Radiological Environmental Monitoring Analysis Report - 2017 (Appendix E)

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

Sample Point 195 [INDICATOR - N @ 0.19 miles]

Sample ID:	Sample Dates:	Nuclide	Activity	2 Sigma Error	MDA
431817	12/27/2016 - 1/3/2017	Beta	1.65E-02	2.70E-03	2.86E-03
432224	1/3/2017 - 1/9/2017	Beta	2.76E-02	3.89E-03	4.03E-03
432925	1/9/2017 - 1/16/2017	Beta	1.52E-02	2.55E-03	2.94E-03
433322	1/16/2017 - 1/23/2017	Beta	1.47E-02	2.51E-03	2.89E-03
433740	1/23/2017 - 1/30/2017	Beta	1.72E-02	2.57E-03	2.79E-03
434478	1/30/2017 - 2/6/2017	Beta	2.76E-02	3.12E-03	2.91E-03
435121	2/6/2017 - 2/13/2017	Beta	2.35E-02	3.28E-03	3.42E-03
435828	2/13/2017 - 2/20/2017	Beta	1.95E-02	3.03E-03	3.20E-03
436279	2/20/2017 - 2/27/2017	Beta	2.05E-02	2.72E-03	2.79E-03
436733	2/27/2017 - 3/6/2017	Beta	2.06E-02	3.13E-03	3.35E-03
437596	3/6/2017 - 3/13/2017	Beta	1.76E-02	2.99E-03	3.42E-03
438320	3/13/2017 - 3/20/2017	Beta	2.11E-02	2.75E-03	2.70E-03
438824	3/20/2017 - 3/27/2017	Beta	2.36E-02	3.22E-03	3.38E-03
439198	12/27/2016 - 3/27/2017	Cs-134	<1.43E-04	0.00E+00	1.43E-04
		Cs-137	<3.09E-04	0.00E+00	3.09E-04
		Be-7	1.66E-01	2.61E-02	1.20E-02
		K-40	7.66E-03	5.69E-03	7.04E-03
439191	3/27/2017 - 4/3/2017	Beta	1.37E-02	2.77E-03	3.29E-03
440023	4/3/2017 - 4/10/2017	Beta	1.44E-02	2.97E-03	3.74E-03
440617	4/10/2017 - 4/17/2017	Beta	2.30E-02	3.19E-03	3.29E-03
441432	4/17/2017 - 4/24/2017	Beta	1.55E-02	2.41E-03	2.58E-03
441879	4/24/2017 - 5/1/2017	Beta	1.19E-02	2.96E-03	4.00E-03
442329	5/1/2017 - 5/8/2017	Beta	1.80E-02	2.57E-03	2.61E-03
442886	5/8/2017 - 5/15/2017	Beta	2.44E-02	3.20E-03	3.11E-03
443325	5/15/2017 - 5/22/2017	Beta	2.58E-02	3.03E-03	3.05E-03
443875	5/22/2017 - 5/30/2017	Beta	1.65E-02	2.64E-03	2.79E-03
444284	5/30/2017 - 6/5/2017	Beta	2.67E-02	3.33E-03	3.28E-03

MCGUIRE Radiological Environmental Monitoring Analysis Report - 2017 (Appendix E)

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

Sample Point 195 [INDICATOR - N @ 0.19 miles]

Sample ID:	445342	Sample Dates: 6/5/2017 - 6/12/2017	Nuclide	Activity	2 Sigma Error	MDA
			Beta	1.65E-02	2.65E-03	3.02E-03
Sample ID:	446346	Sample Dates: 6/12/2017 - 6/19/2017	Nuclide	Activity	2 Sigma Error	MDA
			Beta	1.98E-02	2.73E-03	2.92E-03
Sample ID:	446842	Sample Dates: 6/19/2017 - 6/26/2017	Nuclide	Activity	2 Sigma Error	MDA
			Beta	1.83E-02	2.74E-03	3.02E-03
Sample ID:	447212	Sample Dates: 3/27/2017 - 6/26/2017	Nuclide	Activity	2 Sigma Error	MDA
			Cs-134	<7.84E-04	0.00E+00	7.84E-04
			Cs-137	<4.45E-04	0.00E+00	4.45E-04
			Be-7	1.64E-01	2.57E-02	1.46E-02
			K-40	<1.45E-02	0.00E+00	1.45E-02
Sample ID:	447205	Sample Dates: 6/26/2017 - 7/3/2017	Nuclide	Activity	2 Sigma Error	MDA
			Beta	2.08E-02	3.13E-03	3.29E-03
Sample ID:	447824	Sample Dates: 7/3/2017 - 7/10/2017	Nuclide	Activity	2 Sigma Error	MDA
			Beta	1.72E-02	2.99E-03	3.44E-03
Sample ID:	448296	Sample Dates: 7/10/2017 - 7/17/2017	Nuclide	Activity	2 Sigma Error	MDA
			Beta	2.45E-02	2.89E-03	2.78E-03
Sample ID:	448910	Sample Dates: 7/17/2017 - 7/24/2017	Nuclide	Activity	2 Sigma Error	MDA
			Beta	3.31E-02	3.64E-03	3.16E-03
Sample ID:	449241	Sample Dates: 7/24/2017 - 7/31/2017	Nuclide	Activity	2 Sigma Error	MDA
			Beta	2.10E-02	3.35E-03	3.93E-03
Sample ID:	449962	Sample Dates: 7/31/2017 - 8/7/2017	Nuclide	Activity	2 Sigma Error	MDA
			Beta	2.38E-02	2.91E-03	2.86E-03
Sample ID:	450223	Sample Dates: 8/7/2017 - 8/14/2017	Nuclide	Activity	2 Sigma Error	MDA
			Beta	2.10E-02	3.07E-03	3.27E-03
Sample ID:	450743	Sample Dates: 8/14/2017 - 8/21/2017	Nuclide	Activity	2 Sigma Error	MDA
			Beta	2.50E-02	3.38E-03	3.45E-03
Sample ID:	451209	Sample Dates: 8/21/2017 - 8/28/2017	Nuclide	Activity	2 Sigma Error	MDA
			Beta	3.02E-02	3.17E-03	2.83E-03
Sample ID:	451553	Sample Dates: 8/28/2017 - 9/5/2017	Nuclide	Activity	2 Sigma Error	MDA
			Beta	1.79E-02	2.40E-03	2.45E-03
Sample ID:	452376	Sample Dates: 9/5/2017 - 9/11/2017	Nuclide	Activity	2 Sigma Error	MDA
			Beta	1.89E-02	3.02E-03	3.47E-03
Sample ID:	452803	Sample Dates: 9/11/2017 - 9/18/2017	Nuclide	Activity	2 Sigma Error	MDA
			Beta	2.28E-02	2.88E-03	2.80E-03
Sample ID:	453464	Sample Dates: 9/18/2017 - 9/25/2017	Nuclide	Activity	2 Sigma Error	MDA
			Beta	4.26E-02	4.01E-03	3.15E-03
Sample ID:	454234	Sample Dates: 6/26/2017 - 9/25/2017	Nuclide	Activity	2 Sigma Error	MDA
			Cs-134	<1.43E-03	0.00E+00	1.43E-03
			Cs-137	<1.42E-03	0.00E+00	1.42E-03
			Be-7	1.59E-01	3.70E-02	2.61E-02
			K-40	1.62E-02	1.03E-02	4.39E-03
Sample ID:	454227	Sample Dates: 9/25/2017 - 10/2/2017	Nuclide	Activity	2 Sigma Error	MDA
			Beta	2.93E-02	3.45E-03	3.21E-03
Sample ID:	455091	Sample Dates: 10/2/2017 - 10/9/2017	Nuclide	Activity	2 Sigma Error	MDA
			Beta	2.08E-02	2.67E-03	2.57E-03
Sample ID:	455430	Sample Dates: 10/9/2017 - 10/16/2017	Nuclide	Activity	2 Sigma Error	MDA
			Beta	1.61E-02	2.58E-03	2.84E-03
Sample ID:	456062	Sample Dates: 10/16/2017 - 10/23/2017	Nuclide	Activity	2 Sigma Error	MDA
			Beta	3.55E-02	3.36E-03	2.78E-03
Sample ID:	461429	Sample Dates: 10/23/2017 - 10/30/2017	Nuclide	Activity	2 Sigma Error	MDA
			Beta	1.72E-02	2.53E-03	2.61E-03

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

Sample Point 195 [INDICATOR - N @ 0.19 miles]

Sample ID:	461984	Sample Dates: 10/30/2017 - 11/6/2017	Nuclide	Activity	2 Sigma Error	MDA
			Beta	2.87E-02	3.05E-03	2.74E-03
Sample ID:	462616	Sample Dates: 11/6/2017 - 11/13/2017	Nuclide	Activity	2 Sigma Error	MDA
			Beta	2.35E-02	3.12E-03	2.85E-03
Sample ID:	463112	Sample Dates: 11/13/2017 - 11/20/2017	Nuclide	Activity	2 Sigma Error	MDA
			Beta	2.95E-02	3.52E-03	3.27E-03
Sample ID:	463523	Sample Dates: 11/20/2017 - 11/27/2017	Nuclide	Activity	2 Sigma Error	MDA
			Beta	3.29E-02	3.55E-03	3.04E-03
Sample ID:	464163	Sample Dates: 11/27/2017 - 12/4/2017	Nuclide	Activity	2 Sigma Error	MDA
			Beta	3.53E-02	3.67E-03	3.21E-03
Sample ID:	464713	Sample Dates: 12/4/2017 - 12/11/2017	Nuclide	Activity	2 Sigma Error	MDA
			Beta	3.10E-02	3.71E-03	3.69E-03
Sample ID:	464986	Sample Dates: 12/11/2017 - 12/18/2017	Nuclide	Activity	2 Sigma Error	MDA
			Beta	3.14E-02	3.50E-03	3.04E-03
Sample ID:	465223	Sample Dates: 12/18/2017 - 12/26/2017	Nuclide	Activity	2 Sigma Error	MDA
			Beta	2.94E-02	3.09E-03	2.49E-03
Sample ID:	465637	Sample Dates: 9/25/2017 - 12/26/2017	Nuclide	Activity	2 Sigma Error	MDA
			Cs-134	<1.30E-03	0.00E+00	1.30E-03
			Cs-137	<1.24E-03	0.00E+00	1.24E-03
			Be-7	1.50E-01	3.55E-02	2.35E-02
			K-40	<2.43E-02	0.00E+00	2.43E-02
Sample ID:	465630	Sample Dates: 12/26/2017 - 1/2/2018	Nuclide	Activity	2 Sigma Error	MDA
			Beta	3.73E-02	3.70E-03	3.06E-03
			Cs-134	<1.29E-02	0.00E+00	1.29E-02
			Cs-137	<1.05E-02	0.00E+00	1.05E-02
			Be-7	1.18E-01	7.04E-02	9.77E-02
			K-40	1.46E-01	1.10E-01	1.54E-01

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

Sample Point 102 [CONTROL - WNW @ 9.89 miles]

Sample ID:	431825	Sample Dates: 12/27/2016 - 1/3/2017	Nuclide	Activity	2 Sigma Error	MDA
			I-131	<8.35E-03	0.00E+00	8.35E-03
			Cs-134	<6.29E-03	0.00E+00	6.29E-03
			Cs-137	<7.15E-03	0.00E+00	7.15E-03
			Be-7	<4.16E-02	0.00E+00	4.16E-02
			K-40	4.28E-01	1.38E-01	2.76E-02
Sample ID:	432225	Sample Dates: 1/3/2017 - 1/9/2017	Nuclide	Activity	2 Sigma Error	MDA
			I-131	<1.08E-02	0.00E+00	1.08E-02
			Cs-134	<8.26E-03	0.00E+00	8.26E-03
			Cs-137	<9.40E-03	0.00E+00	9.40E-03
			Be-7	<6.01E-02	0.00E+00	6.01E-02
			K-40	5.06E-01	1.90E-01	1.78E-01
Sample ID:	432926	Sample Dates: 1/9/2017 - 1/16/2017	Nuclide	Activity	2 Sigma Error	MDA
			I-131	<8.26E-03	0.00E+00	8.26E-03
			Cs-134	<7.69E-03	0.00E+00	7.69E-03
			Cs-137	<8.50E-03	0.00E+00	8.50E-03
			Be-7	<5.43E-02	0.00E+00	5.43E-02
			K-40	3.69E-01	1.49E-01	1.55E-01
Sample ID:	433323	Sample Dates: 1/16/2017 - 1/23/2017	Nuclide	Activity	2 Sigma Error	MDA
			I-131	<7.56E-03	0.00E+00	7.56E-03
			Cs-134	<7.68E-03	0.00E+00	7.68E-03
			Cs-137	<9.55E-03	0.00E+00	9.55E-03
			Be-7	<5.66E-02	0.00E+00	5.66E-02
			K-40	4.68E-01	1.51E-01	3.09E-02
Sample ID:	433741	Sample Dates: 1/23/2017 - 1/30/2017	Nuclide	Activity	2 Sigma Error	MDA
			I-131	<8.50E-03	0.00E+00	8.50E-03
			Cs-134	<7.96E-03	0.00E+00	7.96E-03
			Cs-137	<8.18E-03	0.00E+00	8.18E-03
			Be-7	<4.80E-02	0.00E+00	4.80E-02

MCGUIRE Radiological Environmental Monitoring Analysis Report - 2017 (Appendix E)

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

Sample Point 102 [CONTROL - WNW @ 9.89 miles]

Sample ID: 433741 **Sample Dates: 1/23/2017 - 1/30/2017**

Nuclide	Activity	2 Sigma Error	MDA
K-40	2.84E-01	1.34E-01	1.49E-01

Sample ID: 434479 **Sample Dates: 1/30/2017 - 2/6/2017**

Nuclide	Activity	2 Sigma Error	MDA
I-131	<8.22E-03	0.00E+00	8.22E-03
Cs-134	<7.16E-03	0.00E+00	7.16E-03
Cs-137	<7.30E-03	0.00E+00	7.30E-03
Be-7	<4.66E-02	0.00E+00	4.66E-02
K-40	2.44E-01	1.18E-01	1.12E-01

Sample ID: 435122 **Sample Dates: 2/6/2017 - 2/13/2017**

Nuclide	Activity	2 Sigma Error	MDA
I-131	<8.71E-03	0.00E+00	8.71E-03
Cs-134	<6.54E-03	0.00E+00	6.54E-03
Cs-137	<1.02E-02	0.00E+00	1.02E-02
Be-7	<5.19E-02	0.00E+00	5.19E-02
K-40	2.02E-01	1.06E-01	9.78E-02

Sample ID: 435829 **Sample Dates: 2/13/2017 - 2/20/2017**

Nuclide	Activity	2 Sigma Error	MDA
I-131	<8.18E-03	0.00E+00	8.18E-03
Cs-134	<7.18E-03	0.00E+00	7.18E-03
Cs-137	<1.13E-02	0.00E+00	1.13E-02
Be-7	<4.67E-02	0.00E+00	4.67E-02
K-40	<2.52E-01	0.00E+00	2.52E-01

Sample ID: 436280 **Sample Dates: 2/20/2017 - 2/27/2017**

Nuclide	Activity	2 Sigma Error	MDA
I-131	<9.33E-03	0.00E+00	9.33E-03
Cs-134	<9.53E-03	0.00E+00	9.53E-03
Cs-137	<8.16E-03	0.00E+00	8.16E-03
Be-7	<5.26E-02	0.00E+00	5.26E-02
K-40	<1.82E-01	0.00E+00	1.82E-01

Sample ID: 436734 **Sample Dates: 2/27/2017 - 3/6/2017**

Nuclide	Activity	2 Sigma Error	MDA
I-131	<6.95E-03	0.00E+00	6.95E-03
Cs-134	<1.47E-03	0.00E+00	1.47E-03
Cs-137	<1.01E-02	0.00E+00	1.01E-02
Be-7	<5.16E-02	0.00E+00	5.16E-02
K-40	1.60E-01	1.07E-01	1.34E-01

Sample ID: 437597 **Sample Dates: 3/6/2017 - 3/13/2017**

Nuclide	Activity	2 Sigma Error	MDA
I-131	<9.22E-03	0.00E+00	9.22E-03
Cs-134	<6.57E-03	0.00E+00	6.57E-03
Cs-137	<1.13E-02	0.00E+00	1.13E-02
Be-7	<5.21E-02	0.00E+00	5.21E-02
K-40	<2.00E-01	0.00E+00	2.00E-01

Sample ID: 438321 **Sample Dates: 3/13/2017 - 3/20/2017**

Nuclide	Activity	2 Sigma Error	MDA
I-131	<8.96E-03	0.00E+00	8.96E-03
Cs-134	<4.64E-03	0.00E+00	4.64E-03
Cs-137	<5.77E-03	0.00E+00	5.77E-03
Be-7	<6.63E-02	0.00E+00	6.63E-02
K-40	<2.62E-01	0.00E+00	2.62E-01

Sample ID: 438825 **Sample Dates: 3/20/2017 - 3/27/2017**

Nuclide	Activity	2 Sigma Error	MDA
I-131	<6.67E-03	0.00E+00	6.67E-03
Cs-134	<8.22E-03	0.00E+00	8.22E-03
Cs-137	<9.59E-03	0.00E+00	9.59E-03
Be-7	<4.07E-02	0.00E+00	4.07E-02
K-40	<2.08E-01	0.00E+00	2.08E-01

Sample ID: 439199 **Sample Dates: 3/27/2017 - 4/3/2017**

Nuclide	Activity	2 Sigma Error	MDA
I-131	<9.33E-03	0.00E+00	9.33E-03
Cs-134	<8.65E-03	0.00E+00	8.65E-03
Cs-137	<6.29E-03	0.00E+00	6.29E-03
Be-7	<5.72E-02	0.00E+00	5.72E-02
K-40	<2.30E-01	0.00E+00	2.30E-01

Sample ID: 440024 **Sample Dates: 4/3/2017 - 4/10/2017**

Nuclide	Activity	2 Sigma Error	MDA
I-131	<5.61E-03	0.00E+00	5.61E-03
Cs-134	<6.33E-03	0.00E+00	6.33E-03
Cs-137	<6.47E-03	0.00E+00	6.47E-03
Be-7	<7.23E-02	0.00E+00	7.23E-02

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

Sample Point 102 [CONTROL - WNW @ 9.89 miles]

Sample ID: 440024 **Sample Dates: 4/3/2017 - 4/10/2017**

Nuclide	Activity	2 Sigma Error	MDA
K-40	1.86E-01	8.91E-02	2.79E-02

Sample ID: 440618 **Sample Dates: 4/10/2017 - 4/17/2017**

Nuclide	Activity	2 Sigma Error	MDA
I-131	<6.13E-03	0.00E+00	6.13E-03
Cs-134	<7.52E-03	0.00E+00	7.52E-03
Cs-137	<9.35E-03	0.00E+00	9.35E-03
Be-7	<4.55E-02	0.00E+00	4.55E-02
K-40	4.48E-01	1.56E-01	1.17E-01

Sample ID: 441433 **Sample Dates: 4/17/2017 - 4/24/2017**

Nuclide	Activity	2 Sigma Error	MDA
I-131	<8.43E-03	0.00E+00	8.43E-03
Cs-134	<7.51E-03	0.00E+00	7.51E-03
Cs-137	<7.47E-03	0.00E+00	7.47E-03
Be-7	<4.28E-02	0.00E+00	4.28E-02
K-40	3.92E-01	1.49E-01	1.41E-01

Sample ID: 441880 **Sample Dates: 4/24/2017 - 5/1/2017**

Nuclide	Activity	2 Sigma Error	MDA
I-131	<8.62E-03	0.00E+00	8.62E-03
Cs-134	<6.27E-03	0.00E+00	6.27E-03
Cs-137	<8.94E-03	0.00E+00	8.94E-03
Be-7	<5.37E-02	0.00E+00	5.37E-02
K-40	5.52E-01	1.58E-01	2.77E-02

Sample ID: 442330 **Sample Dates: 5/1/2017 - 5/8/2017**

Nuclide	Activity	2 Sigma Error	MDA
I-131	<1.02E-02	0.00E+00	1.02E-02
Cs-134	<7.22E-03	0.00E+00	7.22E-03
Cs-137	<6.35E-03	0.00E+00	6.35E-03
Be-7	<4.05E-02	0.00E+00	4.05E-02
K-40	4.50E-01	1.49E-01	3.13E-02

Sample ID: 442887 **Sample Dates: 5/8/2017 - 5/15/2017**

Nuclide	Activity	2 Sigma Error	MDA
I-131	<9.37E-03	0.00E+00	9.37E-03
Cs-134	<7.04E-03	0.00E+00	7.04E-03
Cs-137	<7.46E-03	0.00E+00	7.46E-03
Be-7	<7.21E-02	0.00E+00	7.21E-02
K-40	4.31E-01	1.64E-01	1.73E-01

Sample ID: 443326 **Sample Dates: 5/15/2017 - 5/22/2017**

Nuclide	Activity	2 Sigma Error	MDA
I-131	<7.89E-03	0.00E+00	7.89E-03
Cs-134	<8.01E-03	0.00E+00	8.01E-03
Cs-137	<1.05E-02	0.00E+00	1.05E-02
Be-7	<6.01E-02	0.00E+00	6.01E-02
K-40	3.95E-01	1.56E-01	1.52E-01

Sample ID: 443876 **Sample Dates: 5/22/2017 - 5/30/2017**

Nuclide	Activity	2 Sigma Error	MDA
I-131	<5.41E-03	0.00E+00	5.41E-03
Cs-134	<5.94E-03	0.00E+00	5.94E-03
Cs-137	<8.30E-03	0.00E+00	8.30E-03
Be-7	<4.45E-02	0.00E+00	4.45E-02
K-40	1.64E-01	1.81E-01	2.43E-02

Sample ID: 444285 **Sample Dates: 5/30/2017 - 6/5/2017**

Nuclide	Activity	2 Sigma Error	MDA
I-131	<8.22E-03	0.00E+00	8.22E-03
Cs-134	<7.64E-03	0.00E+00	7.64E-03
Cs-137	<1.02E-02	0.00E+00	1.02E-02
Be-7	<7.31E-02	0.00E+00	7.31E-02
K-40	<2.54E-01	0.00E+00	2.54E-01

Sample ID: 445343 **Sample Dates: 6/5/2017 - 6/12/2017**

Nuclide	Activity	2 Sigma Error	MDA
I-131	<6.78E-03	0.00E+00	6.78E-03
Cs-134	<5.78E-03	0.00E+00	5.78E-03
Cs-137	<7.85E-03	0.00E+00	7.85E-03
Be-7	<5.39E-02	0.00E+00	5.39E-02
K-40	1.64E-01	1.01E-01	1.21E-01

Sample ID: 446347 **Sample Dates: 6/12/2017 - 6/19/2017**

Nuclide	Activity	2 Sigma Error	MDA
I-131	<4.43E-03	0.00E+00	4.43E-03
Cs-134	<7.54E-03	0.00E+00	7.54E-03
Cs-137	<9.98E-03	0.00E+00	9.98E-03
Be-7	<4.59E-02	0.00E+00	4.59E-02

MCGUIRE Radiological Environmental Monitoring Analysis Report - 2017 (Appendix E)

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

Sample Point 102 [CONTROL - WNW @ 9.89 miles]

Sample ID: 446347 **Sample Dates: 6/12/2017 - 6/19/2017**

Nuclide	Activity	2 Sigma Error	MDA
K-40	1.12E-01	8.46E-02	1.05E-01

Sample ID: 446843 **Sample Dates: 6/19/2017 - 6/26/2017**

Nuclide	Activity	2 Sigma Error	MDA
I-131	<8.22E-03	0.00E+00	8.22E-03
Cs-134	<9.10E-03	0.00E+00	9.10E-03
Cs-137	<1.32E-02	0.00E+00	1.32E-02
Be-7	<5.20E-02	0.00E+00	5.20E-02
K-40	<2.23E-01	0.00E+00	2.23E-01

Sample ID: 447213 **Sample Dates: 6/26/2017 - 7/3/2017**

Nuclide	Activity	2 Sigma Error	MDA
I-131	<8.51E-03	0.00E+00	8.51E-03
Cs-134	<8.05E-03	0.00E+00	8.05E-03
Cs-137	<1.13E-02	0.00E+00	1.13E-02
Be-7	<4.71E-02	0.00E+00	4.71E-02
K-40	1.61E-01	1.05E-01	1.33E-01

Sample ID: 447825 **Sample Dates: 7/3/2017 - 7/10/2017**

Nuclide	Activity	2 Sigma Error	MDA
I-131	<7.17E-03	0.00E+00	7.17E-03
Cs-134	<8.45E-03	0.00E+00	8.45E-03
Cs-137	<1.10E-02	0.00E+00	1.10E-02
Be-7	<5.69E-02	0.00E+00	5.69E-02
K-40	<2.25E-01	0.00E+00	2.25E-01

Sample ID: 448297 **Sample Dates: 7/10/2017 - 7/17/2017**

Nuclide	Activity	2 Sigma Error	MDA
I-131	<8.71E-03	0.00E+00	8.71E-03
Cs-134	<7.16E-03	0.00E+00	7.16E-03
Cs-137	<1.13E-02	0.00E+00	1.13E-02
Be-7	<5.24E-02	0.00E+00	5.24E-02
K-40	1.57E-01	1.14E-01	1.54E-01

Sample ID: 448911 **Sample Dates: 7/17/2017 - 7/24/2017**

Nuclide	Activity	2 Sigma Error	MDA
I-131	<9.12E-03	0.00E+00	9.12E-03
Cs-134	<7.04E-03	0.00E+00	7.04E-03
Cs-137	<9.85E-03	0.00E+00	9.85E-03
Be-7	<5.55E-02	0.00E+00	5.55E-02
K-40	<2.29E-01	0.00E+00	2.29E-01

Sample ID: 449242 **Sample Dates: 7/24/2017 - 7/31/2017**

Nuclide	Activity	2 Sigma Error	MDA
I-131	<9.65E-03	0.00E+00	9.65E-03
Cs-134	<9.55E-03	0.00E+00	9.55E-03
Cs-137	<1.24E-02	0.00E+00	1.24E-02
Be-7	<5.21E-02	0.00E+00	5.21E-02
K-40	<2.31E-01	0.00E+00	2.31E-01

Sample ID: 449963 **Sample Dates: 7/31/2017 - 8/7/2017**

Nuclide	Activity	2 Sigma Error	MDA
I-131	<6.23E-03	0.00E+00	6.23E-03
Cs-134	<6.51E-03	0.00E+00	6.51E-03
Cs-137	<9.50E-03	0.00E+00	9.50E-03
Be-7	<5.17E-02	0.00E+00	5.17E-02
K-40	<2.22E-01	0.00E+00	2.22E-01

Sample ID: 450224 **Sample Dates: 8/7/2017 - 8/14/2017**

Nuclide	Activity	2 Sigma Error	MDA
I-131	<8.57E-03	0.00E+00	8.57E-03
Cs-134	<3.55E-03	0.00E+00	3.55E-03
Cs-137	<9.01E-03	0.00E+00	9.01E-03
Be-7	<4.71E-02	0.00E+00	4.71E-02
K-40	<2.01E-01	0.00E+00	2.01E-01

Sample ID: 450744 **Sample Dates: 8/14/2017 - 8/21/2017**

Nuclide	Activity	2 Sigma Error	MDA
I-131	<6.21E-03	0.00E+00	6.21E-03
Cs-134	<6.78E-03	0.00E+00	6.78E-03
Cs-137	<9.97E-03	0.00E+00	9.97E-03
Be-7	<6.06E-02	0.00E+00	6.06E-02
K-40	<2.62E-01	0.00E+00	2.62E-01

Sample ID: 451210 **Sample Dates: 8/21/2017 - 8/28/2017**

Nuclide	Activity	2 Sigma Error	MDA
I-131	<5.38E-03	0.00E+00	5.38E-03
Cs-134	<9.13E-03	0.00E+00	9.13E-03
Cs-137	<1.19E-02	0.00E+00	1.19E-02
Be-7	<6.52E-02	0.00E+00	6.52E-02

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

Sample Point 102 [CONTROL - WNW @ 9.89 miles]

Sample ID: 451210 **Sample Dates: 8/21/2017 - 8/28/2017**

Nuclide	Activity	2 Sigma Error	MDA
K-40	1.66E-01	1.00E-01	1.09E-01

Sample ID: 451554 **Sample Dates: 8/28/2017 - 9/5/2017**

Nuclide	Activity	2 Sigma Error	MDA
I-131	<7.59E-03	0.00E+00	7.59E-03
Cs-134	<5.03E-03	0.00E+00	5.03E-03
Cs-137	<7.33E-03	0.00E+00	7.33E-03
Be-7	<3.15E-02	0.00E+00	3.15E-02
K-40	1.78E-01	8.12E-02	2.41E-02

Sample ID: 452377 **Sample Dates: 9/5/2017 - 9/11/2017**

Nuclide	Activity	2 Sigma Error	MDA
I-131	<8.15E-03	0.00E+00	8.15E-03
Cs-134	<7.35E-03	0.00E+00	7.35E-03
Cs-137	<9.84E-03	0.00E+00	9.84E-03
Be-7	<5.38E-02	0.00E+00	5.38E-02
K-40	2.09E-01	1.32E-01	1.71E-01

Sample ID: 452804 **Sample Dates: 9/11/2017 - 9/18/2017**

Nuclide	Activity	2 Sigma Error	MDA
I-131	<7.81E-03	0.00E+00	7.81E-03
Cs-134	<6.30E-03	0.00E+00	6.30E-03
Cs-137	<7.17E-03	0.00E+00	7.17E-03
Be-7	<4.59E-02	0.00E+00	4.59E-02
K-40	2.56E-01	1.27E-01	1.46E-01

Sample ID: 453465 **Sample Dates: 9/18/2017 - 9/25/2017**

Nuclide	Activity	2 Sigma Error	MDA
I-131	<6.27E-03	0.00E+00	6.27E-03
Cs-134	<7.59E-03	0.00E+00	7.59E-03
Cs-137	<1.03E-02	0.00E+00	1.03E-02
Be-7	<5.73E-02	0.00E+00	5.73E-02
K-40	2.24E-01	9.76E-02	2.76E-02

Sample ID: 454235 **Sample Dates: 9/25/2017 - 10/2/2017**

Nuclide	Activity	2 Sigma Error	MDA
I-131	<1.84E-02	0.00E+00	1.84E-02
Cs-134	<1.76E-02	0.00E+00	1.76E-02
Cs-137	<1.58E-02	0.00E+00	1.58E-02
Be-7	<1.09E-01	0.00E+00	1.09E-01
K-40	3.33E-01	1.69E-01	2.07E-01

Sample ID: 455092 **Sample Dates: 10/2/2017 - 10/9/2017**

Nuclide	Activity	2 Sigma Error	MDA
I-131	<1.59E-02	0.00E+00	1.59E-02
Cs-134	<1.54E-02	0.00E+00	1.54E-02
Cs-137	<1.54E-02	0.00E+00	1.54E-02
Be-7	<6.32E-02	0.00E+00	6.32E-02
K-40	3.21E-01	1.47E-01	1.39E-01

Sample ID: 455431 **Sample Dates: 10/9/2017 - 10/16/2017**

Nuclide	Activity	2 Sigma Error	MDA
I-131	<1.70E-02	0.00E+00	1.70E-02
Cs-134	<1.45E-02	0.00E+00	1.45E-02
Cs-137	<1.57E-02	0.00E+00	1.57E-02
Be-7	<7.84E-02	0.00E+00	7.84E-02
K-40	<3.25E-01	0.00E+00	3.25E-01

Sample ID: 456063 **Sample Dates: 10/16/2017 - 10/23/2017**

Nuclide	Activity	2 Sigma Error	MDA
I-131	<1.74E-02	0.00E+00	1.74E-02
Cs-134	<1.77E-02	0.00E+00	1.77E-02
Cs-137	<1.69E-02	0.00E+00	1.69E-02
Be-7	<1.08E-01	0.00E+00	1.08E-01
K-40	3.52E-01	1.62E-01	1.78E-01

Sample ID: 461430 **Sample Dates: 10/23/2017 - 10/30/2017**

Nuclide	Activity	2 Sigma Error	MDA
I-131	<2.20E-02	0.00E+00	2.20E-02
Cs-134	<1.59E-02	0.00E+00	1.59E-02
Cs-137	<1.53E-02	0.00E+00	1.53E-02
Be-7	<1.08E-01	0.00E+00	1.08E-01
K-40	6.73E-01	2.09E-01	1.67E-01

Sample ID: 461985 **Sample Dates: 10/30/2017 - 11/6/2017**

Nuclide	Activity	2 Sigma Error	MDA
I-131	<2.13E-02	0.00E+00	2.13E-02
Cs-134	<1.44E-02	0.00E+00	1.44E-02
Cs-137	<1.88E-02	0.00E+00	1.88E-02
Be-7	<1.32E-01	0.00E+00	1.32E-01

MCGUIRE Radiological Environmental Monitoring Analysis Report - 2017 (Appendix E)

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

Sample Point 102 [CONTROL - WNW @ 9.89 miles]

Sample ID:	461985	Sample Dates: 10/30/2017 - 11/6/2017	Nuclide	Activity	2 Sigma Error	MDA
			K-40	3.88E-01	1.55E-01	1.29E-01
Sample ID:	462617	Sample Dates: 11/6/2017 - 11/13/2017	Nuclide	Activity	2 Sigma Error	MDA
			I-131	<2.10E-02	0.00E+00	2.10E-02
			Cs-134	<1.15E-02	0.00E+00	1.15E-02
			Cs-137	<2.01E-02	0.00E+00	2.01E-02
			Be-7	<1.29E-01	0.00E+00	1.29E-01
			K-40	4.34E-01	2.12E-01	2.77E-01
Sample ID:	463113	Sample Dates: 11/13/2017 - 11/20/2017	Nuclide	Activity	2 Sigma Error	MDA
			I-131	<1.85E-02	0.00E+00	1.85E-02
			Cs-134	<1.74E-02	0.00E+00	1.74E-02
			Cs-137	<1.79E-02	0.00E+00	1.79E-02
			Be-7	<1.38E-01	0.00E+00	1.38E-01
			K-40	5.17E-01	2.18E-01	2.64E-01
Sample ID:	463524	Sample Dates: 11/20/2017 - 11/27/2017	Nuclide	Activity	2 Sigma Error	MDA
			I-131	<2.02E-02	0.00E+00	2.02E-02
			Cs-134	<1.66E-02	0.00E+00	1.66E-02
			Cs-137	<1.58E-02	0.00E+00	1.58E-02
			Be-7	<1.36E-01	0.00E+00	1.36E-01
			K-40	3.78E-01	1.92E-01	2.47E-01
Sample ID:	464164	Sample Dates: 11/27/2017 - 12/4/2017	Nuclide	Activity	2 Sigma Error	MDA
			I-131	<2.23E-02	0.00E+00	2.23E-02
			Cs-134	<1.73E-02	0.00E+00	1.73E-02
			Cs-137	<1.78E-02	0.00E+00	1.78E-02
			Be-7	<9.35E-02	0.00E+00	9.35E-02
			K-40	4.61E-01	1.58E-01	3.47E-02
Sample ID:	464714	Sample Dates: 12/4/2017 - 12/11/2017	Nuclide	Activity	2 Sigma Error	MDA
			I-131	<2.04E-02	0.00E+00	2.04E-02
			Cs-134	<1.92E-02	0.00E+00	1.92E-02
			Cs-137	<1.96E-02	0.00E+00	1.96E-02
			Be-7	<1.13E-01	0.00E+00	1.13E-01
			K-40	5.30E-01	2.17E-01	2.57E-01
Sample ID:	464987	Sample Dates: 12/11/2017 - 12/18/2017	Nuclide	Activity	2 Sigma Error	MDA
			I-131	<1.97E-02	0.00E+00	1.97E-02
			Cs-134	<1.74E-02	0.00E+00	1.74E-02
			Cs-137	<1.59E-02	0.00E+00	1.59E-02
			Be-7	<1.11E-01	0.00E+00	1.11E-01
			K-40	5.80E-01	1.89E-01	1.34E-01
Sample ID:	465224	Sample Dates: 12/18/2017 - 12/26/2017	Nuclide	Activity	2 Sigma Error	MDA
			I-131	<2.28E-02	0.00E+00	2.28E-02
			Cs-134	<1.69E-02	0.00E+00	1.69E-02
			Cs-137	<1.72E-02	0.00E+00	1.72E-02
			Be-7	<1.13E-01	0.00E+00	1.13E-01
			K-40	4.39E-01	1.72E-01	1.85E-01
Sample ID:	465638	Sample Dates: 12/26/2017 - 1/2/2018	Nuclide	Activity	2 Sigma Error	MDA
			I-131	<2.14E-02	0.00E+00	2.14E-02
			Cs-134	<1.98E-02	0.00E+00	1.98E-02
			Cs-137	<1.74E-02	0.00E+00	1.74E-02
			Be-7	<1.46E-01	0.00E+00	1.46E-01
			K-40	4.78E-01	1.81E-01	1.72E-01

Sample Point 103 [INDICATOR - NE @ 4.2 miles]

Sample ID:	431826	Sample Dates: 12/27/2016 - 1/3/2017	Nuclide	Activity	2 Sigma Error	MDA
			I-131	<7.66E-03	0.00E+00	7.66E-03
			Cs-134	<5.12E-03	0.00E+00	5.12E-03
			Cs-137	<7.10E-03	0.00E+00	7.10E-03
			Be-7	<6.35E-02	0.00E+00	6.35E-02
			K-40	4.40E-01	1.45E-01	9.50E-02
Sample ID:	432226	Sample Dates: 1/3/2017 - 1/9/2017	Nuclide	Activity	2 Sigma Error	MDA
			I-131	<1.17E-02	0.00E+00	1.17E-02
			Cs-134	<6.03E-03	0.00E+00	6.03E-03

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

Sample Point 103 [INDICATOR - NE @ 4.2 miles]

Sample ID: 432226 **Sample Dates: 1/3/2017 - 1/9/2017**

Nuclide	Activity	2 Sigma Error	MDA
Cs-137	<1.05E-02	0.00E+00	1.05E-02
Be-7	<4.78E-02	0.00E+00	4.78E-02
K-40	4.09E-01	1.54E-01	1.19E-01

Sample ID: 432927 **Sample Dates: 1/9/2017 - 1/16/2017**

Nuclide	Activity	2 Sigma Error	MDA
I-131	<7.29E-03	0.00E+00	7.29E-03
Cs-134	<6.83E-03	0.00E+00	6.83E-03
Cs-137	<7.24E-03	0.00E+00	7.24E-03
Be-7	<5.42E-02	0.00E+00	5.42E-02
K-40	<2.87E-01	0.00E+00	2.87E-01

Sample ID: 433324 **Sample Dates: 1/16/2017 - 1/23/2017**

Nuclide	Activity	2 Sigma Error	MDA
I-131	<7.25E-03	0.00E+00	7.25E-03
Cs-134	<8.01E-03	0.00E+00	8.01E-03
Cs-137	<7.18E-03	0.00E+00	7.18E-03
Be-7	<6.64E-02	0.00E+00	6.64E-02
K-40	3.42E-01	1.30E-01	9.88E-02

Sample ID: 433742 **Sample Dates: 1/23/2017 - 1/30/2017**

Nuclide	Activity	2 Sigma Error	MDA
I-131	<9.28E-03	0.00E+00	9.28E-03
Cs-134	<7.71E-03	0.00E+00	7.71E-03
Cs-137	<6.50E-03	0.00E+00	6.50E-03
Be-7	<7.08E-02	0.00E+00	7.08E-02
K-40	3.74E-01	1.29E-01	2.82E-02

Sample ID: 434480 **Sample Dates: 1/30/2017 - 2/6/2017**

Nuclide	Activity	2 Sigma Error	MDA
I-131	<7.61E-03	0.00E+00	7.61E-03
Cs-134	<5.93E-03	0.00E+00	5.93E-03
Cs-137	<1.85E-03	0.00E+00	1.85E-03
Be-7	<4.69E-02	0.00E+00	4.69E-02
K-40	4.04E-01	1.41E-01	3.13E-02

Sample ID: 435123 **Sample Dates: 2/6/2017 - 2/13/2017**

Nuclide	Activity	2 Sigma Error	MDA
I-131	<9.38E-03	0.00E+00	9.38E-03
Cs-134	<7.21E-03	0.00E+00	7.21E-03
Cs-137	<8.43E-03	0.00E+00	8.43E-03
Be-7	<5.38E-02	0.00E+00	5.38E-02
K-40	<1.79E-01	0.00E+00	1.79E-01

Sample ID: 435830 **Sample Dates: 2/13/2017 - 2/20/2017**

Nuclide	Activity	2 Sigma Error	MDA
I-131	<9.00E-03	0.00E+00	9.00E-03
Cs-134	<8.05E-03	0.00E+00	8.05E-03
Cs-137	<9.53E-03	0.00E+00	9.53E-03
Be-7	<5.41E-02	0.00E+00	5.41E-02
K-40	<2.48E-01	0.00E+00	2.48E-01

Sample ID: 436281 **Sample Dates: 2/20/2017 - 2/27/2017**

Nuclide	Activity	2 Sigma Error	MDA
I-131	<9.87E-03	0.00E+00	9.87E-03
Cs-134	<8.63E-03	0.00E+00	8.63E-03
Cs-137	<7.75E-03	0.00E+00	7.75E-03
Be-7	<5.38E-02	0.00E+00	5.38E-02
K-40	1.55E-01	1.21E-01	1.77E-01

Sample ID: 436735 **Sample Dates: 2/27/2017 - 3/6/2017**

Nuclide	Activity	2 Sigma Error	MDA
I-131	<6.23E-03	0.00E+00	6.23E-03
Cs-134	<4.48E-03	0.00E+00	4.48E-03
Cs-137	<8.46E-03	0.00E+00	8.46E-03
Be-7	<5.75E-02	0.00E+00	5.75E-02
K-40	<2.14E-01	0.00E+00	2.14E-01

Sample ID: 437598 **Sample Dates: 3/6/2017 - 3/13/2017**

Nuclide	Activity	2 Sigma Error	MDA
I-131	<7.77E-03	0.00E+00	7.77E-03
Cs-134	<8.40E-03	0.00E+00	8.40E-03
Cs-137	<1.04E-02	0.00E+00	1.04E-02
Be-7	<4.60E-02	0.00E+00	4.60E-02
K-40	1.50E-01	8.91E-02	9.36E-02

Sample ID: 438322 **Sample Dates: 3/13/2017 - 3/20/2017**

Nuclide	Activity	2 Sigma Error	MDA
I-131	<7.39E-03	0.00E+00	7.39E-03
Cs-134	<8.16E-03	0.00E+00	8.16E-03

MCGUIRE Radiological Environmental Monitoring Analysis Report - 2017 (Appendix E)

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

Sample Point 103 [INDICATOR - NE @ 4.2 miles]

Sample ID: 438322 **Sample Dates: 3/13/2017 - 3/20/2017**

Nuclide	Activity	2 Sigma Error	MDA
Cs-137	<8.58E-03	0.00E+00	8.58E-03
Be-7	<6.85E-02	0.00E+00	6.85E-02
K-40	<2.35E-01	0.00E+00	2.35E-01

Sample ID: 438826 **Sample Dates: 3/20/2017 - 3/27/2017**

Nuclide	Activity	2 Sigma Error	MDA
I-131	<7.66E-03	0.00E+00	7.66E-03
Cs-134	<8.97E-03	0.00E+00	8.97E-03
Cs-137	<7.76E-03	0.00E+00	7.76E-03
Be-7	<7.18E-02	0.00E+00	7.18E-02
K-40	<2.39E-01	0.00E+00	2.39E-01

Sample ID: 439200 **Sample Dates: 3/27/2017 - 4/3/2017**

Nuclide	Activity	2 Sigma Error	MDA
I-131	<7.29E-03	0.00E+00	7.29E-03
Cs-134	<6.36E-03	0.00E+00	6.36E-03
Cs-137	<1.05E-02	0.00E+00	1.05E-02
Be-7	<6.17E-02	0.00E+00	6.17E-02
K-40	<2.21E-01	0.00E+00	2.21E-01

Sample ID: 440025 **Sample Dates: 4/3/2017 - 4/10/2017**

Nuclide	Activity	2 Sigma Error	MDA
I-131	<8.63E-03	0.00E+00	8.63E-03
Cs-134	<8.57E-03	0.00E+00	8.57E-03
Cs-137	<1.02E-02	0.00E+00	1.02E-02
Be-7	<3.77E-02	0.00E+00	3.77E-02
K-40	2.53E-01	1.41E-01	1.80E-01

Sample ID: 440619 **Sample Dates: 4/10/2017 - 4/17/2017**

Nuclide	Activity	2 Sigma Error	MDA
I-131	<9.23E-03	0.00E+00	9.23E-03
Cs-134	<7.15E-03	0.00E+00	7.15E-03
Cs-137	<8.14E-03	0.00E+00	8.14E-03
Be-7	<4.02E-02	0.00E+00	4.02E-02
K-40	<3.32E-01	0.00E+00	3.32E-01

Sample ID: 441434 **Sample Dates: 4/17/2017 - 4/24/2017**

Nuclide	Activity	2 Sigma Error	MDA
I-131	<7.27E-03	0.00E+00	7.27E-03
Cs-134	<6.84E-03	0.00E+00	6.84E-03
Cs-137	<7.24E-03	0.00E+00	7.24E-03
Be-7	<5.85E-02	0.00E+00	5.85E-02
K-40	4.40E-01	1.47E-01	9.82E-02

Sample ID: 441881 **Sample Dates: 4/24/2017 - 5/1/2017**

Nuclide	Activity	2 Sigma Error	MDA
I-131	<8.06E-03	0.00E+00	8.06E-03
Cs-134	<5.55E-03	0.00E+00	5.55E-03
Cs-137	<5.97E-03	0.00E+00	5.97E-03
Be-7	<2.99E-02	0.00E+00	2.99E-02
K-40	4.33E-01	1.42E-01	2.94E-02

Sample ID: 442331 **Sample Dates: 5/1/2017 - 5/8/2017**

Nuclide	Activity	2 Sigma Error	MDA
I-131	<5.60E-03	0.00E+00	5.60E-03
Cs-134	<6.83E-03	0.00E+00	6.83E-03
Cs-137	<6.48E-03	0.00E+00	6.48E-03
Be-7	<5.42E-02	0.00E+00	5.42E-02
K-40	5.68E-01	1.62E-01	2.80E-02

Sample ID: 442888 **Sample Dates: 5/8/2017 - 5/15/2017**

Nuclide	Activity	2 Sigma Error	MDA
I-131	<6.49E-03	0.00E+00	6.49E-03
Cs-134	<4.97E-03	0.00E+00	4.97E-03
Cs-137	<1.11E-02	0.00E+00	1.11E-02
Be-7	<5.13E-02	0.00E+00	5.13E-02
K-40	4.92E-01	1.55E-01	3.03E-02

Sample ID: 443327 **Sample Dates: 5/15/2017 - 5/22/2017**

Nuclide	Activity	2 Sigma Error	MDA
I-131	<7.75E-03	0.00E+00	7.75E-03
Cs-134	<5.93E-03	0.00E+00	5.93E-03
Cs-137	<7.38E-03	0.00E+00	7.38E-03
Be-7	<6.23E-02	0.00E+00	6.23E-02
K-40	<3.05E-01	0.00E+00	3.05E-01

Sample ID: 443877 **Sample Dates: 5/22/2017 - 5/30/2017**

Nuclide	Activity	2 Sigma Error	MDA
I-131	<6.34E-03	0.00E+00	6.34E-03
Cs-134	<6.80E-03	0.00E+00	6.80E-03

MCGUIRE Radiological Environmental Monitoring Analysis Report - 2017 (Appendix E)

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

Sample Point 103 [INDICATOR - NE @ 4.2 miles]

Sample ID: 443877 **Sample Dates: 5/22/2017 - 5/30/2017**

Nuclide	Activity	2 Sigma Error	MDA
Cs-137	<8.46E-03	0.00E+00	8.46E-03
Be-7	<5.11E-02	0.00E+00	5.11E-02
K-40	1.85E-01	1.10E-01	1.38E-01

Sample ID: 444286 **Sample Dates: 5/30/2017 - 6/5/2017**

Nuclide	Activity	2 Sigma Error	MDA
I-131	<1.03E-02	0.00E+00	1.03E-02
Cs-134	<8.95E-03	0.00E+00	8.95E-03
Cs-137	<1.18E-02	0.00E+00	1.18E-02
Be-7	<4.68E-02	0.00E+00	4.68E-02
K-40	2.13E-01	1.08E-01	3.60E-02

Sample ID: 445344 **Sample Dates: 6/5/2017 - 6/12/2017**

Nuclide	Activity	2 Sigma Error	MDA
I-131	<8.31E-03	0.00E+00	8.31E-03
Cs-134	<6.58E-03	0.00E+00	6.58E-03
Cs-137	<6.73E-03	0.00E+00	6.73E-03
Be-7	<4.25E-02	0.00E+00	4.25E-02
K-40	<2.19E-01	0.00E+00	2.19E-01

Sample ID: 446348 **Sample Dates: 6/12/2017 - 6/19/2017**

Nuclide	Activity	2 Sigma Error	MDA
I-131	<1.03E-02	0.00E+00	1.03E-02
Cs-134	<7.60E-03	0.00E+00	7.60E-03
Cs-137	<1.00E-02	0.00E+00	1.00E-02
Be-7	<6.40E-02	0.00E+00	6.40E-02
K-40	2.65E-01	1.21E-01	1.14E-01

Sample ID: 446844 **Sample Dates: 6/19/2017 - 6/26/2017**

Nuclide	Activity	2 Sigma Error	MDA
I-131	<5.61E-03	0.00E+00	5.61E-03
Cs-134	<8.47E-03	0.00E+00	8.47E-03
Cs-137	<8.53E-03	0.00E+00	8.53E-03
Be-7	<3.58E-02	0.00E+00	3.58E-02
K-40	1.25E-01	9.35E-02	1.24E-01

Sample ID: 447214 **Sample Dates: 6/26/2017 - 7/3/2017**

Nuclide	Activity	2 Sigma Error	MDA
I-131	<9.97E-03	0.00E+00	9.97E-03
Cs-134	<6.17E-03	0.00E+00	6.17E-03
Cs-137	<1.06E-02	0.00E+00	1.06E-02
Be-7	<6.90E-02	0.00E+00	6.90E-02
K-40	2.78E-01	1.42E-01	1.71E-01

Sample ID: 447826 **Sample Dates: 7/3/2017 - 7/10/2017**

Nuclide	Activity	2 Sigma Error	MDA
I-131	<8.14E-03	0.00E+00	8.14E-03
Cs-134	<6.55E-03	0.00E+00	6.55E-03
Cs-137	<1.02E-02	0.00E+00	1.02E-02
Be-7	<6.09E-02	0.00E+00	6.09E-02
K-40	1.49E-01	1.04E-01	1.34E-01

Sample ID: 448298 **Sample Dates: 7/10/2017 - 7/17/2017**

Nuclide	Activity	2 Sigma Error	MDA
I-131	<7.63E-03	0.00E+00	7.63E-03
Cs-134	<5.11E-03	0.00E+00	5.11E-03
Cs-137	<9.37E-03	0.00E+00	9.37E-03
Be-7	<5.37E-02	0.00E+00	5.37E-02
K-40	2.26E-01	1.07E-01	9.90E-02

Sample ID: 448912 **Sample Dates: 7/17/2017 - 7/24/2017**

Nuclide	Activity	2 Sigma Error	MDA
I-131	<7.80E-03	0.00E+00	7.80E-03
Cs-134	<3.58E-03	0.00E+00	3.58E-03
Cs-137	<1.01E-02	0.00E+00	1.01E-02
Be-7	<5.06E-02	0.00E+00	5.06E-02
K-40	2.28E-01	9.96E-02	2.81E-02

Sample ID: 449243 **Sample Dates: 7/24/2017 - 7/31/2017**

Nuclide	Activity	2 Sigma Error	MDA
I-131	<8.98E-03	0.00E+00	8.98E-03
Cs-134	<7.66E-03	0.00E+00	7.66E-03
Cs-137	<1.17E-02	0.00E+00	1.17E-02
Be-7	<4.60E-02	0.00E+00	4.60E-02
K-40	1.75E-01	8.64E-02	2.79E-02

Sample ID: 449964 **Sample Dates: 7/31/2017 - 8/7/2017**

Nuclide	Activity	2 Sigma Error	MDA
I-131	<7.24E-03	0.00E+00	7.24E-03
Cs-134	<8.30E-03	0.00E+00	8.30E-03

MCGUIRE Radiological Environmental Monitoring Analysis Report - 2017 (Appendix E)

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

Sample Point 103 [INDICATOR - NE @ 4.2 miles]

Sample ID: 449964 **Sample Dates: 7/31/2017 - 8/7/2017**

Nuclide	Activity	2 Sigma Error	MDA
Cs-137	<7.12E-03	0.00E+00	7.12E-03
Be-7	<2.79E-02	0.00E+00	2.79E-02
K-40	<2.05E-01	0.00E+00	2.05E-01

Sample ID: 450225 **Sample Dates: 8/7/2017 - 8/14/2017**

Nuclide	Activity	2 Sigma Error	MDA
I-131	<9.35E-03	0.00E+00	9.35E-03
Cs-134	<6.67E-03	0.00E+00	6.67E-03
Cs-137	<5.87E-03	0.00E+00	5.87E-03
Be-7	<6.51E-02	0.00E+00	6.51E-02
K-40	2.30E-01	1.23E-01	1.44E-01

Sample ID: 450745 **Sample Dates: 8/14/2017 - 8/21/2017**

Nuclide	Activity	2 Sigma Error	MDA
I-131	<1.02E-02	0.00E+00	1.02E-02
Cs-134	<8.63E-03	0.00E+00	8.63E-03
Cs-137	<1.02E-02	0.00E+00	1.02E-02
Be-7	<6.13E-02	0.00E+00	6.13E-02
K-40	<2.91E-01	0.00E+00	2.91E-01

Sample ID: 451211 **Sample Dates: 8/21/2017 - 8/28/2017**

Nuclide	Activity	2 Sigma Error	MDA
I-131	<8.98E-03	0.00E+00	8.98E-03
Cs-134	<7.24E-03	0.00E+00	7.24E-03
Cs-137	<9.01E-03	0.00E+00	9.01E-03
Be-7	<5.02E-02	0.00E+00	5.02E-02
K-40	2.15E-01	1.14E-01	1.28E-01

Sample ID: 451555 **Sample Dates: 8/28/2017 - 9/5/2017**

Nuclide	Activity	2 Sigma Error	MDA
I-131	<7.67E-03	0.00E+00	7.67E-03
Cs-134	<6.41E-03	0.00E+00	6.41E-03
Cs-137	<8.83E-03	0.00E+00	8.83E-03
Be-7	<2.54E-02	0.00E+00	2.54E-02
K-40	<1.84E-01	0.00E+00	1.84E-01

Sample ID: 452378 **Sample Dates: 9/5/2017 - 9/11/2017**

Nuclide	Activity	2 Sigma Error	MDA
I-131	<8.13E-03	0.00E+00	8.13E-03
Cs-134	<7.97E-03	0.00E+00	7.97E-03
Cs-137	<1.17E-02	0.00E+00	1.17E-02
Be-7	<7.52E-02	0.00E+00	7.52E-02
K-40	<2.65E-01	0.00E+00	2.65E-01

Sample ID: 452805 **Sample Dates: 9/11/2017 - 9/18/2017**

Nuclide	Activity	2 Sigma Error	MDA
I-131	<8.19E-03	0.00E+00	8.19E-03
Cs-134	<7.77E-03	0.00E+00	7.77E-03
Cs-137	<1.17E-02	0.00E+00	1.17E-02
Be-7	<4.90E-02	0.00E+00	4.90E-02
K-40	2.59E-01	1.17E-01	9.74E-02

Sample ID: 453466 **Sample Dates: 9/18/2017 - 9/25/2017**

Nuclide	Activity	2 Sigma Error	MDA
I-131	<6.79E-03	0.00E+00	6.79E-03
Cs-134	<5.77E-03	0.00E+00	5.77E-03
Cs-137	<1.08E-02	0.00E+00	1.08E-02
Be-7	<6.06E-02	0.00E+00	6.06E-02
K-40	<2.30E-01	0.00E+00	2.30E-01

Sample ID: 454236 **Sample Dates: 9/25/2017 - 10/2/2017**

Nuclide	Activity	2 Sigma Error	MDA
I-131	<1.31E-02	0.00E+00	1.31E-02
Cs-134	<1.37E-02	0.00E+00	1.37E-02
Cs-137	<1.68E-02	0.00E+00	1.68E-02
Be-7	<1.08E-01	0.00E+00	1.08E-01
K-40	3.69E-01	1.91E-01	2.51E-01

Sample ID: 455093 **Sample Dates: 10/2/2017 - 10/9/2017**

Nuclide	Activity	2 Sigma Error	MDA
I-131	<1.25E-02	0.00E+00	1.25E-02
Cs-134	<1.21E-02	0.00E+00	1.21E-02
Cs-137	<1.26E-02	0.00E+00	1.26E-02
Be-7	<9.55E-02	0.00E+00	9.55E-02
K-40	2.15E-01	1.58E-01	2.31E-01

Sample ID: 455432 **Sample Dates: 10/9/2017 - 10/16/2017**

Nuclide	Activity	2 Sigma Error	MDA
I-131	<1.44E-02	0.00E+00	1.44E-02
Cs-134	<1.46E-02	0.00E+00	1.46E-02

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

Sample Point 103 [INDICATOR - NE @ 4.2 miles]

Sample ID: 455432 **Sample Dates: 10/9/2017 - 10/16/2017**

Nuclide	Activity	2 Sigma Error	MDA
Cs-137	<1.69E-02	0.00E+00	1.69E-02
Be-7	<9.50E-02	0.00E+00	9.50E-02
K-40	<2.81E-01	0.00E+00	2.81E-01

Sample ID: 456064 **Sample Dates: 10/16/2017 - 10/23/2017**

Nuclide	Activity	2 Sigma Error	MDA
I-131	<1.56E-02	0.00E+00	1.56E-02
Cs-134	<1.27E-02	0.00E+00	1.27E-02
Cs-137	<1.52E-02	0.00E+00	1.52E-02
Be-7	<8.78E-02	0.00E+00	8.78E-02
K-40	5.14E-01	1.78E-01	1.41E-01

Sample ID: 461431 **Sample Dates: 10/23/2017 - 10/30/2017**

Nuclide	Activity	2 Sigma Error	MDA
I-131	<2.17E-02	0.00E+00	2.17E-02
Cs-134	<1.44E-02	0.00E+00	1.44E-02
Cs-137	<1.92E-02	0.00E+00	1.92E-02
Be-7	<9.74E-02	0.00E+00	9.74E-02
K-40	6.19E-01	1.93E-01	1.26E-01

Sample ID: 461986 **Sample Dates: 10/30/2017 - 11/6/2017**

Nuclide	Activity	2 Sigma Error	MDA
I-131	<2.18E-02	0.00E+00	2.18E-02
Cs-134	<1.58E-02	0.00E+00	1.58E-02
Cs-137	<1.52E-02	0.00E+00	1.52E-02
Be-7	<1.23E-01	0.00E+00	1.23E-01
K-40	<4.22E-01	0.00E+00	4.22E-01

Sample ID: 462618 **Sample Dates: 11/6/2017 - 11/13/2017**

Nuclide	Activity	2 Sigma Error	MDA
I-131	<2.04E-02	0.00E+00	2.04E-02
Cs-134	<1.82E-02	0.00E+00	1.82E-02
Cs-137	<1.81E-02	0.00E+00	1.81E-02
Be-7	<1.13E-01	0.00E+00	1.13E-01
K-40	4.88E-01	1.71E-01	1.16E-01

Sample ID: 463114 **Sample Dates: 11/13/2017 - 11/20/2017**

Nuclide	Activity	2 Sigma Error	MDA
I-131	<1.94E-02	0.00E+00	1.94E-02
Cs-134	<1.87E-02	0.00E+00	1.87E-02
Cs-137	<2.01E-02	0.00E+00	2.01E-02
Be-7	<1.30E-01	0.00E+00	1.30E-01
K-40	3.57E-01	1.70E-01	1.97E-01

Sample ID: 463525 **Sample Dates: 11/20/2017 - 11/27/2017**

Nuclide	Activity	2 Sigma Error	MDA
I-131	<2.30E-02	0.00E+00	2.30E-02
Cs-134	<1.66E-02	0.00E+00	1.66E-02
Cs-137	<1.91E-02	0.00E+00	1.91E-02
Be-7	<1.10E-01	0.00E+00	1.10E-01
K-40	4.28E-01	1.82E-01	1.99E-01

Sample ID: 464165 **Sample Dates: 11/27/2017 - 12/4/2017**

Nuclide	Activity	2 Sigma Error	MDA
I-131	<2.41E-02	0.00E+00	2.41E-02
Cs-134	<1.78E-02	0.00E+00	1.78E-02
Cs-137	<1.86E-02	0.00E+00	1.86E-02
Be-7	<1.13E-01	0.00E+00	1.13E-01
K-40	5.32E-01	2.13E-01	2.46E-01

Sample ID: 464715 **Sample Dates: 12/4/2017 - 12/11/2017**

Nuclide	Activity	2 Sigma Error	MDA
I-131	<1.99E-02	0.00E+00	1.99E-02
Cs-134	<1.53E-02	0.00E+00	1.53E-02
Cs-137	<1.81E-02	0.00E+00	1.81E-02
Be-7	<1.08E-01	0.00E+00	1.08E-01
K-40	4.61E-01	1.66E-01	1.17E-01

Sample ID: 464988 **Sample Dates: 12/11/2017 - 12/18/2017**

Nuclide	Activity	2 Sigma Error	MDA
I-131	<1.97E-02	0.00E+00	1.97E-02
Cs-134	<1.87E-02	0.00E+00	1.87E-02
Cs-137	<1.64E-02	0.00E+00	1.64E-02
Be-7	<1.29E-01	0.00E+00	1.29E-01
K-40	4.71E-01	1.78E-01	1.65E-01

Sample ID: 465225 **Sample Dates: 12/18/2017 - 12/26/2017**

Nuclide	Activity	2 Sigma Error	MDA
I-131	<2.53E-02	0.00E+00	2.53E-02
Cs-134	<1.58E-02	0.00E+00	1.58E-02

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

Sample Point 103 [INDICATOR - NE @ 4.2 miles]

Sample ID: 465225 **Sample Dates: 12/18/2017 - 12/26/2017**

Nuclide	Activity	2 Sigma Error	MDA
Cs-137	<1.48E-02	0.00E+00	1.48E-02
Be-7	<1.10E-01	0.00E+00	1.10E-01
K-40	<3.17E-01	0.00E+00	3.17E-01

Sample ID: 465639 **Sample Dates: 12/26/2017 - 1/2/2018**

Nuclide	Activity	2 Sigma Error	MDA
I-131	<2.27E-02	0.00E+00	2.27E-02
Cs-134	<1.78E-02	0.00E+00	1.78E-02
Cs-137	<1.51E-02	0.00E+00	1.51E-02
Be-7	<1.26E-01	0.00E+00	1.26E-01
K-40	<3.92E-01	0.00E+00	3.92E-01

Sample Point 120 [INDICATOR - NNE @ 0.46 miles]

Sample ID: 431827 **Sample Dates: 12/27/2016 - 1/3/2017**

Nuclide	Activity	2 Sigma Error	MDA
I-131	<7.93E-03	0.00E+00	7.93E-03
Cs-134	<6.55E-03	0.00E+00	6.55E-03
Cs-137	<9.15E-03	0.00E+00	9.15E-03
Be-7	<5.60E-02	0.00E+00	5.60E-02
K-40	3.95E-01	1.30E-01	2.68E-02

Sample ID: 432227 **Sample Dates: 1/3/2017 - 1/9/2017**

Nuclide	Activity	2 Sigma Error	MDA
I-131	<1.03E-02	0.00E+00	1.03E-02
Cs-134	<8.02E-03	0.00E+00	8.02E-03
Cs-137	<8.20E-03	0.00E+00	8.20E-03
Be-7	<6.81E-02	0.00E+00	6.81E-02
K-40	4.48E-01	1.88E-01	2.05E-01

Sample ID: 432928 **Sample Dates: 1/9/2017 - 1/16/2017**

Nuclide	Activity	2 Sigma Error	MDA
I-131	<7.06E-03	0.00E+00	7.06E-03
Cs-134	<7.28E-03	0.00E+00	7.28E-03
Cs-137	<5.97E-03	0.00E+00	5.97E-03
Be-7	<6.11E-02	0.00E+00	6.11E-02
K-40	6.00E-01	1.81E-01	1.30E-01

Sample ID: 433325 **Sample Dates: 1/16/2017 - 1/23/2017**

Nuclide	Activity	2 Sigma Error	MDA
I-131	<8.03E-03	0.00E+00	8.03E-03
Cs-134	<6.70E-03	0.00E+00	6.70E-03
Cs-137	<7.64E-03	0.00E+00	7.64E-03
Be-7	<4.34E-02	0.00E+00	4.34E-02
K-40	4.46E-01	1.54E-01	1.15E-01

Sample ID: 433743 **Sample Dates: 1/23/2017 - 1/30/2017**

Nuclide	Activity	2 Sigma Error	MDA
I-131	<7.56E-03	0.00E+00	7.56E-03
Cs-134	<7.31E-03	0.00E+00	7.31E-03
Cs-137	<6.94E-03	0.00E+00	6.94E-03
Be-7	<4.96E-02	0.00E+00	4.96E-02
K-40	3.48E-01	1.37E-01	1.15E-01

Sample ID: 434481 **Sample Dates: 1/30/2017 - 2/6/2017**

Nuclide	Activity	2 Sigma Error	MDA
I-131	<6.98E-03	0.00E+00	6.98E-03
Cs-134	<4.78E-03	0.00E+00	4.78E-03
Cs-137	<4.72E-03	0.00E+00	4.72E-03
Be-7	<5.71E-02	0.00E+00	5.71E-02
K-40	4.79E-01	1.56E-01	1.04E-01

Sample ID: 435124 **Sample Dates: 2/6/2017 - 2/13/2017**

Nuclide	Activity	2 Sigma Error	MDA
I-131	<1.06E-02	0.00E+00	1.06E-02
Cs-134	<7.30E-03	0.00E+00	7.30E-03
Cs-137	<1.34E-02	0.00E+00	1.34E-02
Be-7	<4.91E-02	0.00E+00	4.91E-02
K-40	2.09E-01	9.77E-02	2.98E-02

Sample ID: 435831 **Sample Dates: 2/13/2017 - 2/20/2017**

Nuclide	Activity	2 Sigma Error	MDA
I-131	<5.78E-03	0.00E+00	5.78E-03
Cs-134	<1.06E-02	0.00E+00	1.06E-02
Cs-137	<1.11E-02	0.00E+00	1.11E-02
Be-7	<5.71E-02	0.00E+00	5.71E-02
K-40	<2.62E-01	0.00E+00	2.62E-01

MCGUIRE Radiological Environmental Monitoring Analysis Report - 2017 (Appendix E)

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

Sample Point 120 [INDICATOR - NNE @ 0.46 miles]

Sample ID: 436282 **Sample Dates: 2/20/2017 - 2/27/2017**

Nuclide	Activity	2 Sigma Error	MDA
I-131	<8.28E-03	0.00E+00	8.28E-03
Cs-134	<8.64E-03	0.00E+00	8.64E-03
Cs-137	<1.16E-02	0.00E+00	1.16E-02
Be-7	<6.57E-02	0.00E+00	6.57E-02
K-40	2.18E-01	1.16E-01	1.32E-01

Sample ID: 436736 **Sample Dates: 2/27/2017 - 3/6/2017**

Nuclide	Activity	2 Sigma Error	MDA
I-131	<6.56E-03	0.00E+00	6.56E-03
Cs-134	<9.48E-03	0.00E+00	9.48E-03
Cs-137	<1.31E-02	0.00E+00	1.31E-02
Be-7	<4.95E-02	0.00E+00	4.95E-02
K-40	2.67E-01	1.11E-01	3.01E-02

Sample ID: 437599 **Sample Dates: 3/6/2017 - 3/13/2017**

Nuclide	Activity	2 Sigma Error	MDA
I-131	<8.99E-03	0.00E+00	8.99E-03
Cs-134	<9.33E-03	0.00E+00	9.33E-03
Cs-137	<1.12E-02	0.00E+00	1.12E-02
Be-7	<2.99E-02	0.00E+00	2.99E-02
K-40	2.59E-01	1.27E-01	1.37E-01

Sample ID: 438323 **Sample Dates: 3/13/2017 - 3/20/2017**

Nuclide	Activity	2 Sigma Error	MDA
I-131	<8.39E-03	0.00E+00	8.39E-03
Cs-134	<3.67E-03	0.00E+00	3.67E-03
Cs-137	<8.15E-03	0.00E+00	8.15E-03
Be-7	<3.69E-02	0.00E+00	3.69E-02
K-40	1.15E-01	7.01E-02	2.84E-02

Sample ID: 438827 **Sample Dates: 3/20/2017 - 3/27/2017**

Nuclide	Activity	2 Sigma Error	MDA
I-131	<9.58E-03	0.00E+00	9.58E-03
Cs-134	<7.87E-03	0.00E+00	7.87E-03
Cs-137	<1.08E-02	0.00E+00	1.08E-02
Be-7	<5.56E-02	0.00E+00	5.56E-02
K-40	<2.37E-01	0.00E+00	2.37E-01

Sample ID: 439201 **Sample Dates: 3/27/2017 - 4/3/2017**

Nuclide	Activity	2 Sigma Error	MDA
I-131	<1.00E-02	0.00E+00	1.00E-02
Cs-134	<7.33E-03	0.00E+00	7.33E-03
Cs-137	<1.22E-02	0.00E+00	1.22E-02
Be-7	<6.88E-02	0.00E+00	6.88E-02
K-40	4.08E-01	1.39E-01	2.99E-02

Sample ID: 440026 **Sample Dates: 4/3/2017 - 4/10/2017**

Nuclide	Activity	2 Sigma Error	MDA
I-131	<4.86E-03	0.00E+00	4.86E-03
Cs-134	<6.88E-03	0.00E+00	6.88E-03
Cs-137	<6.53E-03	0.00E+00	6.53E-03
Be-7	<4.67E-02	0.00E+00	4.67E-02
K-40	3.60E-01	1.39E-01	1.24E-01

Sample ID: 440620 **Sample Dates: 4/10/2017 - 4/17/2017**

Nuclide	Activity	2 Sigma Error	MDA
I-131	<7.90E-03	0.00E+00	7.90E-03
Cs-134	<9.20E-03	0.00E+00	9.20E-03
Cs-137	<7.97E-03	0.00E+00	7.97E-03
Be-7	<5.10E-02	0.00E+00	5.10E-02
K-40	3.55E-01	1.26E-01	2.83E-02

Sample ID: 441435 **Sample Dates: 4/17/2017 - 4/24/2017**

Nuclide	Activity	2 Sigma Error	MDA
I-131	<5.50E-03	0.00E+00	5.50E-03
Cs-134	<3.91E-03	0.00E+00	3.91E-03
Cs-137	<8.65E-03	0.00E+00	8.65E-03
Be-7	<6.72E-02	0.00E+00	6.72E-02
K-40	2.83E-01	1.23E-01	1.04E-01

Sample ID: 441882 **Sample Dates: 4/24/2017 - 5/1/2017**

Nuclide	Activity	2 Sigma Error	MDA
I-131	<6.72E-03	0.00E+00	6.72E-03
Cs-134	<7.15E-03	0.00E+00	7.15E-03
Cs-137	<8.88E-03	0.00E+00	8.88E-03
Be-7	<4.55E-02	0.00E+00	4.55E-02
K-40	3.51E-01	1.36E-01	1.22E-01

MCGUIRE Radiological Environmental Monitoring Analysis Report - 2017 (Appendix E)

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

Sample Point 120 [INDICATOR - NNE @ 0.46 miles]

Sample ID: 442332 **Sample Dates: 5/1/2017 - 5/8/2017**

Nuclide	Activity	2 Sigma Error	MDA
I-131	<1.15E-02	0.00E+00	1.15E-02
Cs-134	<5.55E-03	0.00E+00	5.55E-03
Cs-137	<8.42E-03	0.00E+00	8.42E-03
Be-7	<5.33E-02	0.00E+00	5.33E-02
K-40	4.71E-01	1.49E-01	2.97E-02

Sample ID: 442889 **Sample Dates: 5/8/2017 - 5/15/2017**

Nuclide	Activity	2 Sigma Error	MDA
I-131	<7.90E-03	0.00E+00	7.90E-03
Cs-134	<7.36E-03	0.00E+00	7.36E-03
Cs-137	<7.32E-03	0.00E+00	7.32E-03
Be-7	2.36E-02	2.98E-02	4.80E-02
K-40	3.18E-01	1.37E-01	1.41E-01

Sample ID: 443328 **Sample Dates: 5/15/2017 - 5/22/2017**

Nuclide	Activity	2 Sigma Error	MDA
I-131	<8.29E-03	0.00E+00	8.29E-03
Cs-134	<6.35E-03	0.00E+00	6.35E-03
Cs-137	<9.27E-03	0.00E+00	9.27E-03
Be-7	<5.95E-02	0.00E+00	5.95E-02
K-40	3.89E-01	1.45E-01	1.16E-01

Sample ID: 443878 **Sample Dates: 5/22/2017 - 5/30/2017**

Nuclide	Activity	2 Sigma Error	MDA
I-131	<8.87E-03	0.00E+00	8.87E-03
Cs-134	<6.48E-03	0.00E+00	6.48E-03
Cs-137	<9.33E-03	0.00E+00	9.33E-03
Be-7	<4.91E-02	0.00E+00	4.91E-02
K-40	<2.11E-01	0.00E+00	2.11E-01

Sample ID: 444287 **Sample Dates: 5/30/2017 - 6/5/2017**

Nuclide	Activity	2 Sigma Error	MDA
I-131	<9.79E-03	0.00E+00	9.79E-03
Cs-134	<9.19E-03	0.00E+00	9.19E-03
Cs-137	<1.02E-02	0.00E+00	1.02E-02
Be-7	<7.26E-02	0.00E+00	7.26E-02
K-40	2.86E-01	1.29E-01	1.11E-01

Sample ID: 445345 **Sample Dates: 6/5/2017 - 6/12/2017**

Nuclide	Activity	2 Sigma Error	MDA
I-131	<1.02E-02	0.00E+00	1.02E-02
Cs-134	<4.99E-03	0.00E+00	4.99E-03
Cs-137	<9.43E-03	0.00E+00	9.43E-03
Be-7	<5.98E-02	0.00E+00	5.98E-02
K-40	1.73E-01	1.06E-01	1.23E-01

Sample ID: 446349 **Sample Dates: 6/12/2017 - 6/19/2017**

Nuclide	Activity	2 Sigma Error	MDA
I-131	<7.72E-03	0.00E+00	7.72E-03
Cs-134	<6.37E-03	0.00E+00	6.37E-03
Cs-137	<1.15E-02	0.00E+00	1.15E-02
Be-7	<3.93E-02	0.00E+00	3.93E-02
K-40	<1.46E-01	0.00E+00	1.46E-01

Sample ID: 446845 **Sample Dates: 6/19/2017 - 6/26/2017**

Nuclide	Activity	2 Sigma Error	MDA
I-131	<7.20E-03	0.00E+00	7.20E-03
Cs-134	<7.44E-03	0.00E+00	7.44E-03
Cs-137	<7.89E-03	0.00E+00	7.89E-03
Be-7	<4.47E-02	0.00E+00	4.47E-02
K-40	<2.33E-01	0.00E+00	2.33E-01

Sample ID: 447215 **Sample Dates: 6/26/2017 - 7/3/2017**

Nuclide	Activity	2 Sigma Error	MDA
I-131	<8.45E-03	0.00E+00	8.45E-03
Cs-134	<7.62E-03	0.00E+00	7.62E-03
Cs-137	<6.42E-03	0.00E+00	6.42E-03
Be-7	<6.81E-02	0.00E+00	6.81E-02
K-40	<1.92E-01	0.00E+00	1.92E-01

Sample ID: 447827 **Sample Dates: 7/3/2017 - 7/10/2017**

Nuclide	Activity	2 Sigma Error	MDA
I-131	<7.72E-03	0.00E+00	7.72E-03
Cs-134	<6.78E-03	0.00E+00	6.78E-03
Cs-137	<8.98E-03	0.00E+00	8.98E-03
Be-7	<7.19E-02	0.00E+00	7.19E-02
K-40	1.09E-01	7.78E-02	9.13E-02

MCGUIRE Radiological Environmental Monitoring Analysis Report - 2017 (Appendix E)

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

Sample Point 120 [INDICATOR - NNE @ 0.46 miles]

Sample ID: 448299 **Sample Dates: 7/10/2017 - 7/17/2017**

Nuclide	Activity	2 Sigma Error	MDA
I-131	<6.59E-03	0.00E+00	6.59E-03
Cs-134	<7.86E-03	0.00E+00	7.86E-03
Cs-137	<1.28E-02	0.00E+00	1.28E-02
Be-7	<5.55E-02	0.00E+00	5.55E-02
K-40	2.79E-01	1.19E-01	9.74E-02

Sample ID: 448913 **Sample Dates: 7/17/2017 - 7/24/2017**

Nuclide	Activity	2 Sigma Error	MDA
I-131	<7.18E-03	0.00E+00	7.18E-03
Cs-134	<9.58E-03	0.00E+00	9.58E-03
Cs-137	<1.32E-02	0.00E+00	1.32E-02
Be-7	<4.48E-02	0.00E+00	4.48E-02
K-40	<2.19E-01	0.00E+00	2.19E-01

Sample ID: 449244 **Sample Dates: 7/24/2017 - 7/31/2017**

Nuclide	Activity	2 Sigma Error	MDA
I-131	<7.57E-03	0.00E+00	7.57E-03
Cs-134	<8.15E-03	0.00E+00	8.15E-03
Cs-137	<1.16E-02	0.00E+00	1.16E-02
Be-7	<5.71E-02	0.00E+00	5.71E-02
K-40	2.51E-01	1.07E-01	2.96E-02

Sample ID: 449965 **Sample Dates: 7/31/2017 - 8/7/2017**

Nuclide	Activity	2 Sigma Error	MDA
I-131	<1.01E-02	0.00E+00	1.01E-02
Cs-134	<8.49E-03	0.00E+00	8.49E-03
Cs-137	<1.01E-02	0.00E+00	1.01E-02
Be-7	<4.33E-02	0.00E+00	4.33E-02
K-40	3.68E-01	1.30E-01	2.93E-02

Sample ID: 450226 **Sample Dates: 8/7/2017 - 8/14/2017**

Nuclide	Activity	2 Sigma Error	MDA
I-131	<6.85E-03	0.00E+00	6.85E-03
Cs-134	<8.04E-03	0.00E+00	8.04E-03
Cs-137	<9.09E-03	0.00E+00	9.09E-03
Be-7	<4.51E-02	0.00E+00	4.51E-02
K-40	1.36E-01	8.09E-02	8.03E-02

Sample ID: 450746 **Sample Dates: 8/14/2017 - 8/21/2017**

Nuclide	Activity	2 Sigma Error	MDA
I-131	<9.21E-03	0.00E+00	9.21E-03
Cs-134	<6.56E-03	0.00E+00	6.56E-03
Cs-137	<8.15E-03	0.00E+00	8.15E-03
Be-7	<4.78E-02	0.00E+00	4.78E-02
K-40	<2.28E-01	0.00E+00	2.28E-01

Sample ID: 451212 **Sample Dates: 8/21/2017 - 8/28/2017**

Nuclide	Activity	2 Sigma Error	MDA
I-131	<1.04E-02	0.00E+00	1.04E-02
Cs-134	<6.16E-03	0.00E+00	6.16E-03
Cs-137	<7.67E-03	0.00E+00	7.67E-03
Be-7	<7.33E-02	0.00E+00	7.33E-02
K-40	2.59E-01	1.48E-01	1.94E-01

Sample ID: 451556 **Sample Dates: 8/28/2017 - 9/5/2017**

Nuclide	Activity	2 Sigma Error	MDA
I-131	<5.86E-03	0.00E+00	5.86E-03
Cs-134	<7.77E-03	0.00E+00	7.77E-03
Cs-137	<1.01E-02	0.00E+00	1.01E-02
Be-7	<5.93E-02	0.00E+00	5.93E-02
K-40	<2.54E-01	0.00E+00	2.54E-01

Sample ID: 452379 **Sample Dates: 9/5/2017 - 9/11/2017**

Nuclide	Activity	2 Sigma Error	MDA
I-131	<9.68E-03	0.00E+00	9.68E-03
Cs-134	<6.50E-03	0.00E+00	6.50E-03
Cs-137	<1.36E-02	0.00E+00	1.36E-02
Be-7	<6.75E-02	0.00E+00	6.75E-02
K-40	1.40E-01	9.21E-02	9.26E-02

Sample ID: 452806 **Sample Dates: 9/11/2017 - 9/18/2017**

Nuclide	Activity	2 Sigma Error	MDA
I-131	<9.56E-03	0.00E+00	9.56E-03
Cs-134	<6.95E-03	0.00E+00	6.95E-03
Cs-137	<9.72E-03	0.00E+00	9.72E-03
Be-7	<2.89E-02	0.00E+00	2.89E-02
K-40	2.25E-01	1.22E-01	1.46E-01

MCGUIRE Radiological Environmental Monitoring Analysis Report - 2017 (Appendix E)

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

Sample Point 120 [INDICATOR - NNE @ 0.46 miles]

Sample ID: 453467 **Sample Dates: 9/18/2017 - 9/25/2017**

Nuclide	Activity	2 Sigma Error	MDA
I-131	<8.56E-03	0.00E+00	8.56E-03
Cs-134	<6.70E-03	0.00E+00	6.70E-03
Cs-137	<1.15E-02	0.00E+00	1.15E-02
Be-7	<4.34E-02	0.00E+00	4.34E-02
K-40	3.26E-01	1.22E-01	2.94E-02

Sample ID: 454237 **Sample Dates: 9/25/2017 - 10/2/2017**

Nuclide	Activity	2 Sigma Error	MDA
I-131	<1.21E-02	0.00E+00	1.21E-02
Cs-134	<1.50E-02	0.00E+00	1.50E-02
Cs-137	<1.41E-02	0.00E+00	1.41E-02
Be-7	<1.06E-01	0.00E+00	1.06E-01
K-40	1.71E-01	1.01E-01	1.05E-01

Sample ID: 455094 **Sample Dates: 10/2/2017 - 10/9/2017**

Nuclide	Activity	2 Sigma Error	MDA
I-131	<1.44E-02	0.00E+00	1.44E-02
Cs-134	<1.72E-02	0.00E+00	1.72E-02
Cs-137	<1.30E-02	0.00E+00	1.30E-02
Be-7	<9.47E-02	0.00E+00	9.47E-02
K-40	<3.71E-01	0.00E+00	3.71E-01

Sample ID: 455433 **Sample Dates: 10/9/2017 - 10/16/2017**

Nuclide	Activity	2 Sigma Error	MDA
I-131	<1.23E-02	0.00E+00	1.23E-02
Cs-134	<1.61E-02	0.00E+00	1.61E-02
Cs-137	<1.39E-02	0.00E+00	1.39E-02
Be-7	<1.07E-01	0.00E+00	1.07E-01
K-40	3.15E-01	1.64E-01	2.02E-01

Sample ID: 456065 **Sample Dates: 10/16/2017 - 10/23/2017**

Nuclide	Activity	2 Sigma Error	MDA
I-131	<1.46E-02	0.00E+00	1.46E-02
Cs-134	<1.28E-02	0.00E+00	1.28E-02
Cs-137	<1.53E-02	0.00E+00	1.53E-02
Be-7	<9.77E-02	0.00E+00	9.77E-02
K-40	2.74E-01	1.33E-01	1.39E-01

Sample ID: 461432 **Sample Dates: 10/23/2017 - 10/30/2017**

Nuclide	Activity	2 Sigma Error	MDA
I-131	<2.03E-02	0.00E+00	2.03E-02
Cs-134	<1.98E-02	0.00E+00	1.98E-02
Cs-137	<2.08E-02	0.00E+00	2.08E-02
Be-7	<1.21E-01	0.00E+00	1.21E-01
K-40	3.96E-01	1.84E-01	2.19E-01

Sample ID: 461987 **Sample Dates: 10/30/2017 - 11/6/2017**

Nuclide	Activity	2 Sigma Error	MDA
I-131	<1.93E-02	0.00E+00	1.93E-02
Cs-134	<1.75E-02	0.00E+00	1.75E-02
Cs-137	<1.59E-02	0.00E+00	1.59E-02
Be-7	<1.26E-01	0.00E+00	1.26E-01
K-40	4.23E-01	1.72E-01	1.76E-01

Sample ID: 462619 **Sample Dates: 11/6/2017 - 11/13/2017**

Nuclide	Activity	2 Sigma Error	MDA
I-131	<2.22E-02	0.00E+00	2.22E-02
Cs-134	<1.65E-02	0.00E+00	1.65E-02
Cs-137	<1.80E-02	0.00E+00	1.80E-02
Be-7	<1.31E-01	0.00E+00	1.31E-01
K-40	5.44E-01	1.99E-01	1.92E-01

Sample ID: 463115 **Sample Dates: 11/13/2017 - 11/20/2017**

Nuclide	Activity	2 Sigma Error	MDA
I-131	<2.12E-02	0.00E+00	2.12E-02
Cs-134	<2.15E-02	0.00E+00	2.15E-02
Cs-137	<1.59E-02	0.00E+00	1.59E-02
Be-7	<1.18E-01	0.00E+00	1.18E-01
K-40	4.75E-01	2.31E-01	3.07E-01

Sample ID: 463526 **Sample Dates: 11/20/2017 - 11/27/2017**

Nuclide	Activity	2 Sigma Error	MDA
I-131	<1.98E-02	0.00E+00	1.98E-02
Cs-134	<1.58E-02	0.00E+00	1.58E-02
Cs-137	<1.63E-02	0.00E+00	1.63E-02
Be-7	<1.03E-01	0.00E+00	1.03E-01
K-40	5.60E-01	1.96E-01	1.80E-01

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

Sample Point 120 [INDICATOR - NNE @ 0.46 miles]

Sample ID: 464166 **Sample Dates: 11/27/2017 - 12/4/2017**

Nuclide	Activity	2 Sigma Error	MDA
I-131	<1.76E-02	0.00E+00	1.76E-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	<1.02E-01	0.00E+00	1.02E-01
K-40	4.79E-01	1.87E-01	1.97E-01

Sample ID: 464716 **Sample Dates: 12/4/2017 - 12/11/2017**

Nuclide	Activity	2 Sigma Error	MDA
I-131	<2.31E-02	0.00E+00	2.31E-02
Cs-134	<1.18E-02	0.00E+00	1.18E-02
Cs-137	<1.98E-02	0.00E+00	1.98E-02
Be-7	<1.25E-01	0.00E+00	1.25E-01
K-40	5.65E-01	1.96E-01	1.67E-01

Sample ID: 464989 **Sample Dates: 12/11/2017 - 12/18/2017**

Nuclide	Activity	2 Sigma Error	MDA
I-131	<2.07E-02	0.00E+00	2.07E-02
Cs-134	<2.10E-02	0.00E+00	2.10E-02
Cs-137	<1.79E-02	0.00E+00	1.79E-02
Be-7	<1.29E-01	0.00E+00	1.29E-01
K-40	4.31E-01	1.82E-01	1.97E-01

Sample ID: 465226 **Sample Dates: 12/18/2017 - 12/26/2017**

Nuclide	Activity	2 Sigma Error	MDA
I-131	<2.18E-02	0.00E+00	2.18E-02
Cs-134	<1.68E-02	0.00E+00	1.69E-02
Cs-137	<1.60E-02	0.00E+00	1.60E-02
Be-7	<9.65E-02	0.00E+00	9.65E-02
K-40	5.03E-01	1.66E-01	1.25E-01

Sample ID: 465640 **Sample Dates: 12/26/2017 - 1/2/2018**

Nuclide	Activity	2 Sigma Error	MDA
I-131	<2.04E-02	0.00E+00	2.04E-02
Cs-134	<1.39E-02	0.00E+00	1.39E-02
Cs-137	<1.68E-02	0.00E+00	1.68E-02
Be-7	<1.29E-01	0.00E+00	1.29E-01
K-40	5.26E-01	2.12E-01	2.50E-01

Sample Point 121 [INDICATOR - NE @ 0.47 miles]

Sample ID: 431828 **Sample Dates: 12/27/2016 - 1/3/2017**

Nuclide	Activity	2 Sigma Error	MDA
I-131	<8.10E-03	0.00E+00	8.10E-03
Cs-134	<8.30E-03	0.00E+00	8.30E-03
Cs-137	<8.88E-03	0.00E+00	8.88E-03
Be-7	<4.11E-02	0.00E+00	4.11E-02
K-40	2.91E-01	1.18E-01	9.12E-02

Sample ID: 432228 **Sample Dates: 1/3/2017 - 1/9/2017**

Nuclide	Activity	2 Sigma Error	MDA
I-131	<9.32E-03	0.00E+00	9.32E-03
Cs-134	<9.94E-03	0.00E+00	9.94E-03
Cs-137	<1.06E-02	0.00E+00	1.06E-02
Be-7	<4.23E-02	0.00E+00	4.23E-02
K-40	4.37E-01	1.51E-01	3.29E-02

Sample ID: 432929 **Sample Dates: 1/9/2017 - 1/16/2017**

Nuclide	Activity	2 Sigma Error	MDA
I-131	<6.77E-03	0.00E+00	6.77E-03
Cs-134	<8.41E-03	0.00E+00	8.41E-03
Cs-137	<8.46E-03	0.00E+00	8.46E-03
Be-7	<5.77E-02	0.00E+00	5.77E-02
K-40	3.07E-01	1.28E-01	1.16E-01

Sample ID: 433326 **Sample Dates: 1/16/2017 - 1/23/2017**

Nuclide	Activity	2 Sigma Error	MDA
I-131	<7.23E-03	0.00E+00	7.23E-03
Cs-134	<9.00E-03	0.00E+00	9.00E-03
Cs-137	<8.92E-03	0.00E+00	8.92E-03
Be-7	<4.57E-02	0.00E+00	4.57E-02
K-40	4.17E-01	1.36E-01	2.76E-02

Sample ID: 433744 **Sample Dates: 1/23/2017 - 1/30/2017**

Nuclide	Activity	2 Sigma Error	MDA
I-131	<8.09E-03	0.00E+00	8.09E-03
Cs-134	<7.30E-03	0.00E+00	7.30E-03
Cs-137	<9.08E-03	0.00E+00	9.08E-03
Be-7	<5.06E-02	0.00E+00	5.06E-02
K-40	3.68E-01	1.35E-01	1.07E-01

MCGUIRE Radiological Environmental Monitoring Analysis Report - 2017 (Appendix E)

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

Sample Point 121 [INDICATOR - NE @ 0.47 miles]

Sample ID: 434482 **Sample Dates: 1/30/2017 - 2/6/2017**

Nuclide	Activity	2 Sigma Error	MDA
I-131	<7.69E-03	0.00E+00	7.69E-03
Cs-134	<1.02E-02	0.00E+00	1.02E-02
Cs-137	<1.05E-02	0.00E+00	1.05E-02
Be-7	<4.77E-02	0.00E+00	4.77E-02
K-40	5.17E-01	1.62E-01	3.19E-02

Sample ID: 435125 **Sample Dates: 2/6/2017 - 2/13/2017**

Nuclide	Activity	2 Sigma Error	MDA
I-131	<9.48E-03	0.00E+00	9.48E-03
Cs-134	<5.82E-03	0.00E+00	5.82E-03
Cs-137	<9.04E-03	0.00E+00	9.04E-03
Be-7	<5.06E-02	0.00E+00	5.06E-02
K-40	2.32E-01	1.08E-01	9.56E-02

Sample ID: 435832 **Sample Dates: 2/13/2017 - 2/20/2017**

Nuclide	Activity	2 Sigma Error	MDA
I-131	<5.55E-03	0.00E+00	5.55E-03
Cs-134	<9.04E-03	0.00E+00	9.04E-03
Cs-137	<9.95E-03	0.00E+00	9.95E-03
Be-7	<4.12E-02	0.00E+00	4.12E-02
K-40	2.24E-01	1.15E-01	1.27E-01

Sample ID: 436283 **Sample Dates: 2/20/2017 - 2/27/2017**

Nuclide	Activity	2 Sigma Error	MDA
I-131	<7.48E-03	0.00E+00	7.48E-03
Cs-134	<6.10E-03	0.00E+00	6.10E-03
Cs-137	<8.15E-03	0.00E+00	8.15E-03
Be-7	<4.49E-02	0.00E+00	4.49E-02
K-40	1.58E-01	8.05E-02	2.68E-02

Sample ID: 436737 **Sample Dates: 2/27/2017 - 3/6/2017**

Nuclide	Activity	2 Sigma Error	MDA
I-131	<5.64E-03	0.00E+00	5.64E-03
Cs-134	<6.41E-03	0.00E+00	6.41E-03
Cs-137	<9.12E-03	0.00E+00	9.12E-03
Be-7	<4.68E-02	0.00E+00	4.68E-02
K-40	1.23E-01	9.87E-02	1.39E-01

Sample ID: 437600 **Sample Dates: 3/6/2017 - 3/13/2017**

Nuclide	Activity	2 Sigma Error	MDA
I-131	<7.29E-03	0.00E+00	7.29E-03
Cs-134	<6.30E-03	0.00E+00	6.30E-03
Cs-137	<8.97E-03	0.00E+00	8.97E-03
Be-7	<6.38E-02	0.00E+00	6.38E-02
K-40	<2.06E-01	0.00E+00	2.06E-01

Sample ID: 438324 **Sample Dates: 3/13/2017 - 3/20/2017**

Nuclide	Activity	2 Sigma Error	MDA
I-131	<8.09E-03	0.00E+00	8.09E-03
Cs-134	<8.19E-03	0.00E+00	8.19E-03
Cs-137	<1.07E-02	0.00E+00	1.07E-02
Be-7	<5.72E-02	0.00E+00	5.72E-02
K-40	2.07E-01	1.17E-01	1.34E-01

Sample ID: 438828 **Sample Dates: 3/20/2017 - 3/27/2017**

Nuclide	Activity	2 Sigma Error	MDA
I-131	<7.95E-03	0.00E+00	7.95E-03
Cs-134	<7.39E-03	0.00E+00	7.39E-03
Cs-137	<7.58E-03	0.00E+00	7.58E-03
Be-7	<4.03E-02	0.00E+00	4.03E-02
K-40	1.73E-01	9.35E-02	9.37E-02

Sample ID: 439202 **Sample Dates: 3/27/2017 - 4/3/2017**

Nuclide	Activity	2 Sigma Error	MDA
I-131	<7.80E-03	0.00E+00	7.80E-03
Cs-134	<9.14E-03	0.00E+00	9.14E-03
Cs-137	<1.05E-02	0.00E+00	1.05E-02
Be-7	<5.50E-02	0.00E+00	5.50E-02
K-40	2.58E-01	1.06E-01	2.80E-02

Sample ID: 440027 **Sample Dates: 4/3/2017 - 4/10/2017**

Nuclide	Activity	2 Sigma Error	MDA
I-131	<6.98E-03	0.00E+00	6.98E-03
Cs-134	<9.04E-03	0.00E+00	9.04E-03
Cs-137	<7.44E-03	0.00E+00	7.44E-03
Be-7	<4.26E-02	0.00E+00	4.26E-02
K-40	4.35E-01	1.69E-01	1.82E-01

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

Sample Point 121 [INDICATOR - NE @ 0.47 miles]

Sample ID: 440621 **Sample Dates: 4/10/2017 - 4/17/2017**

Nuclide	Activity	2 Sigma Error	MDA
I-131	<7.96E-03	0.00E+00	7.96E-03
Cs-134	<6.41E-03	0.00E+00	6.41E-03
Cs-137	<1.05E-02	0.00E+00	1.05E-02
Be-7	<5.07E-02	0.00E+00	5.07E-02
K-40	4.02E-01	1.39E-01	3.03E-02

Sample ID: 441436 **Sample Dates: 4/17/2017 - 4/24/2017**

Nuclide	Activity	2 Sigma Error	MDA
I-131	<8.86E-03	0.00E+00	8.86E-03
Cs-134	<7.41E-03	0.00E+00	7.41E-03
Cs-137	<7.60E-03	0.00E+00	7.60E-03
Be-7	<5.29E-02	0.00E+00	5.29E-02
K-40	4.06E-01	1.42E-01	1.13E-01

Sample ID: 441883 **Sample Dates: 4/24/2017 - 5/1/2017**

Nuclide	Activity	2 Sigma Error	MDA
I-131	<7.69E-03	0.00E+00	7.69E-03
Cs-134	<9.09E-03	0.00E+00	9.09E-03
Cs-137	<8.52E-03	0.00E+00	8.52E-03
Be-7	<6.53E-02	0.00E+00	6.53E-02
K-40	4.27E-01	1.49E-01	1.04E-01

Sample ID: 442333 **Sample Dates: 5/1/2017 - 5/8/2017**

Nuclide	Activity	2 Sigma Error	MDA
I-131	<7.80E-03	0.00E+00	7.80E-03
Cs-134	<6.33E-03	0.00E+00	6.33E-03
Cs-137	<6.45E-03	0.00E+00	6.45E-03
Be-7	<4.62E-02	0.00E+00	4.62E-02
K-40	4.83E-01	1.47E-01	2.78E-02

Sample ID: 442890 **Sample Dates: 5/8/2017 - 5/15/2017**

Nuclide	Activity	2 Sigma Error	MDA
I-131	<9.12E-03	0.00E+00	9.12E-03
Cs-134	<6.71E-03	0.00E+00	6.71E-03
Cs-137	<8.36E-03	0.00E+00	8.36E-03
Be-7	<5.35E-02	0.00E+00	5.35E-02
K-40	4.85E-01	1.64E-01	1.32E-01

Sample ID: 443329 **Sample Dates: 5/15/2017 - 5/22/2017**

Nuclide	Activity	2 Sigma Error	MDA
I-131	<8.07E-03	0.00E+00	8.07E-03
Cs-134	<7.93E-03	0.00E+00	7.93E-03
Cs-137	<7.10E-03	0.00E+00	7.10E-03
Be-7	<4.58E-02	0.00E+00	4.58E-02
K-40	4.68E-01	1.44E-01	2.76E-02

Sample ID: 443879 **Sample Dates: 5/22/2017 - 5/30/2017**

Nuclide	Activity	2 Sigma Error	MDA
I-131	<8.81E-03	0.00E+00	8.81E-03
Cs-134	<6.77E-03	0.00E+00	6.77E-03
Cs-137	<9.47E-03	0.00E+00	9.47E-03
Be-7	<5.43E-02	0.00E+00	5.43E-02
K-40	<2.47E-01	0.00E+00	2.47E-01

Sample ID: 444288 **Sample Dates: 5/30/2017 - 6/5/2017**

Nuclide	Activity	2 Sigma Error	MDA
I-131	<9.56E-03	0.00E+00	9.56E-03
Cs-134	<9.89E-03	0.00E+00	9.89E-03
Cs-137	<1.29E-02	0.00E+00	1.29E-02
Be-7	<8.84E-02	0.00E+00	8.84E-02
K-40	2.79E-01	1.76E-01	2.46E-01

Sample ID: 445346 **Sample Dates: 6/5/2017 - 6/12/2017**

Nuclide	Activity	2 Sigma Error	MDA
I-131	<4.24E-03	0.00E+00	4.24E-03
Cs-134	<7.74E-03	0.00E+00	7.74E-03
Cs-137	<9.62E-03	0.00E+00	9.62E-03
Be-7	<6.12E-02	0.00E+00	6.12E-02
K-40	8.82E-02	1.04E-01	1.66E-01

Sample ID: 446350 **Sample Dates: 6/12/2017 - 6/19/2017**

Nuclide	Activity	2 Sigma Error	MDA
I-131	<7.46E-03	0.00E+00	7.46E-03
Cs-134	<8.12E-03	0.00E+00	8.12E-03
Cs-137	<9.64E-03	0.00E+00	9.64E-03
Be-7	<5.62E-02	0.00E+00	5.62E-02
K-40	1.29E-01	7.24E-02	2.69E-02

MCGUIRE Radiological Environmental Monitoring Analysis Report - 2017 (Appendix E)

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

Sample Point 121 [INDICATOR - NE @ 0.47 miles]

Sample ID: 446846 **Sample Dates: 6/19/2017 - 6/26/2017**

Nuclide	Activity	2 Sigma Error	MDA
I-131	<5.66E-03	0.00E+00	5.66E-03
Cs-134	<5.92E-03	0.00E+00	5.92E-03
Cs-137	<9.19E-03	0.00E+00	9.19E-03
Be-7	<5.14E-02	0.00E+00	5.14E-02
K-40	2.09E-01	1.42E-01	2.01E-01

Sample ID: 447216 **Sample Dates: 6/26/2017 - 7/3/2017**

Nuclide	Activity	2 Sigma Error	MDA
I-131	<9.67E-03	0.00E+00	9.67E-03
Cs-134	<5.90E-03	0.00E+00	5.90E-03
Cs-137	<9.16E-03	0.00E+00	9.16E-03
Be-7	<5.23E-02	0.00E+00	5.23E-02
K-40	1.57E-01	8.25E-02	2.84E-02

Sample ID: 447828 **Sample Dates: 7/3/2017 - 7/10/2017**

Nuclide	Activity	2 Sigma Error	MDA
I-131	<7.92E-03	0.00E+00	7.92E-03
Cs-134	<7.54E-03	0.00E+00	7.54E-03
Cs-137	<1.11E-02	0.00E+00	1.11E-02
Be-7	<5.07E-02	0.00E+00	5.07E-02
K-40	<2.52E-01	0.00E+00	2.52E-01

Sample ID: 448300 **Sample Dates: 7/10/2017 - 7/17/2017**

Nuclide	Activity	2 Sigma Error	MDA
I-131	<7.44E-03	0.00E+00	7.44E-03
Cs-134	<7.74E-03	0.00E+00	7.74E-03
Cs-137	<1.01E-02	0.00E+00	1.01E-02
Be-7	<5.60E-02	0.00E+00	5.60E-02
K-40	<1.99E-01	0.00E+00	1.99E-01

Sample ID: 448914 **Sample Dates: 7/17/2017 - 7/24/2017**

Nuclide	Activity	2 Sigma Error	MDA
I-131	<9.13E-03	0.00E+00	9.13E-03
Cs-134	<6.46E-03	0.00E+00	6.46E-03
Cs-137	<1.02E-02	0.00E+00	1.02E-02
Be-7	<4.71E-02	0.00E+00	4.71E-02
K-40	<2.11E-01	0.00E+00	2.11E-01

Sample ID: 449245 **Sample Dates: 7/24/2017 - 7/31/2017**

Nuclide	Activity	2 Sigma Error	MDA
I-131	<5.54E-03	0.00E+00	5.54E-03
Cs-134	<7.22E-03	0.00E+00	7.22E-03
Cs-137	<8.43E-03	0.00E+00	8.43E-03
Be-7	<5.75E-02	0.00E+00	5.75E-02
K-40	1.64E-01	1.02E-01	1.24E-01

Sample ID: 449966 **Sample Dates: 7/31/2017 - 8/7/2017**

Nuclide	Activity	2 Sigma Error	MDA
I-131	<7.69E-03	0.00E+00	7.69E-03
Cs-134	<7.90E-03	0.00E+00	7.90E-03
Cs-137	<8.84E-03	0.00E+00	8.84E-03
Be-7	<6.00E-02	0.00E+00	6.00E-02
K-40	<2.32E-01	0.00E+00	2.32E-01

Sample ID: 450227 **Sample Dates: 8/7/2017 - 8/14/2017**

Nuclide	Activity	2 Sigma Error	MDA
I-131	<6.34E-03	0.00E+00	6.34E-03
Cs-134	<6.26E-03	0.00E+00	6.26E-03
Cs-137	<8.90E-03	0.00E+00	8.90E-03
Be-7	<5.46E-02	0.00E+00	5.46E-02
K-40	1.83E-01	8.80E-02	2.76E-02

Sample ID: 450747 **Sample Dates: 8/14/2017 - 8/21/2017**

Nuclide	Activity	2 Sigma Error	MDA
I-131	<9.29E-03	0.00E+00	9.29E-03
Cs-134	<5.45E-03	0.00E+00	5.45E-03
Cs-137	<9.98E-03	0.00E+00	9.98E-03
Be-7	<5.26E-02	0.00E+00	5.26E-02
K-40	2.92E-01	1.15E-01	2.93E-02

Sample ID: 451213 **Sample Dates: 8/21/2017 - 8/28/2017**

Nuclide	Activity	2 Sigma Error	MDA
I-131	<8.56E-03	0.00E+00	8.56E-03
Cs-134	<7.20E-03	0.00E+00	7.20E-03
Cs-137	<9.93E-03	0.00E+00	9.93E-03
Be-7	<2.81E-02	0.00E+00	2.81E-02
K-40	1.84E-01	1.05E-01	1.21E-01

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

Sample Point 121 [INDICATOR - NE @ 0.47 miles]

Sample ID: 451557 **Sample Dates: 8/28/2017 - 9/5/2017**

Nuclide	Activity	2 Sigma Error	MDA
I-131	<6.01E-03	0.00E+00	6.01E-03
Cs-134	<5.04E-03	0.00E+00	5.04E-03
Cs-137	<7.35E-03	0.00E+00	7.35E-03
Be-7	<5.37E-02	0.00E+00	5.37E-02
K-40	2.62E-01	1.07E-01	8.97E-02

Sample ID: 452380 **Sample Dates: 9/5/2017 - 9/11/2017**

Nuclide	Activity	2 Sigma Error	MDA
I-131	<9.04E-03	0.00E+00	9.04E-03
Cs-134	<6.10E-03	0.00E+00	6.10E-03
Cs-137	<9.25E-03	0.00E+00	9.25E-03
Be-7	<6.31E-02	0.00E+00	6.31E-02
K-40	1.63E-01	1.18E-01	1.60E-01

Sample ID: 452807 **Sample Dates: 9/11/2017 - 9/18/2017**

Nuclide	Activity	2 Sigma Error	MDA
I-131	<7.02E-03	0.00E+00	7.02E-03
Cs-134	<7.98E-03	0.00E+00	7.98E-03
Cs-137	<9.92E-03	0.00E+00	9.92E-03
Be-7	<4.80E-02	0.00E+00	4.80E-02
K-40	<2.36E-01	0.00E+00	2.36E-01

Sample ID: 453468 **Sample Dates: 9/18/2017 - 9/25/2017**

Nuclide	Activity	2 Sigma Error	MDA
I-131	<8.21E-03	0.00E+00	8.21E-03
Cs-134	<6.75E-03	0.00E+00	6.75E-03
Cs-137	<8.92E-03	0.00E+00	8.92E-03
Be-7	<4.10E-02	0.00E+00	4.10E-02
K-40	1.99E-01	1.00E-01	9.39E-02

Sample ID: 454238 **Sample Dates: 9/25/2017 - 10/2/2017**

Nuclide	Activity	2 Sigma Error	MDA
I-131	<1.75E-02	0.00E+00	1.75E-02
Cs-134	<1.80E-02	0.00E+00	1.80E-02
Cs-137	<2.01E-02	0.00E+00	2.01E-02
Be-7	<8.92E-02	0.00E+00	8.92E-02
K-40	1.70E-01	1.27E-01	1.76E-01

Sample ID: 455095 **Sample Dates: 10/2/2017 - 10/9/2017**

Nuclide	Activity	2 Sigma Error	MDA
I-131	<1.54E-02	0.00E+00	1.54E-02
Cs-134	<8.28E-03	0.00E+00	8.28E-03
Cs-137	<1.34E-02	0.00E+00	1.34E-02
Be-7	<6.71E-02	0.00E+00	6.71E-02
K-40	<3.01E-01	0.00E+00	3.01E-01

Sample ID: 455434 **Sample Dates: 10/9/2017 - 10/16/2017**

Nuclide	Activity	2 Sigma Error	MDA
I-131	<1.72E-02	0.00E+00	1.72E-02
Cs-134	<1.54E-02	0.00E+00	1.54E-02
Cs-137	<1.61E-02	0.00E+00	1.61E-02
Be-7	<9.25E-02	0.00E+00	9.25E-02
K-40	3.27E-01	1.81E-01	2.37E-01

Sample ID: 456066 **Sample Dates: 10/16/2017 - 10/23/2017**

Nuclide	Activity	2 Sigma Error	MDA
I-131	<1.88E-02	0.00E+00	1.88E-02
Cs-134	<1.67E-02	0.00E+00	1.67E-02
Cs-137	<1.63E-02	0.00E+00	1.63E-02
Be-7	<9.89E-02	0.00E+00	9.89E-02
K-40	2.54E-01	1.40E-01	1.62E-01

Sample ID: 461433 **Sample Dates: 10/23/2017 - 10/30/2017**

Nuclide	Activity	2 Sigma Error	MDA
I-131	<2.27E-02	0.00E+00	2.27E-02
Cs-134	<1.52E-02	0.00E+00	1.52E-02
Cs-137	<1.87E-02	0.00E+00	1.87E-02
Be-7	<1.18E-01	0.00E+00	1.18E-01
K-40	5.11E-01	1.91E-01	1.88E-01

Sample ID: 461988 **Sample Dates: 10/30/2017 - 11/6/2017**

Nuclide	Activity	2 Sigma Error	MDA
I-131	<2.02E-02	0.00E+00	2.02E-02
Cs-134	<1.75E-02	0.00E+00	1.75E-02
Cs-137	<1.60E-02	0.00E+00	1.60E-02
Be-7	<1.12E-01	0.00E+00	1.12E-01
K-40	5.18E-01	1.97E-01	2.10E-01

MCGUIRE Radiological Environmental Monitoring Analysis Report - 2017 (Appendix E)

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

Sample Point 121 [INDICATOR - NE @ 0.47 miles]

Sample ID: 462620 **Sample Dates: 11/6/2017 - 11/13/2017**

Nuclide	Activity	2 Sigma Error	MDA
I-131	<2.32E-02	0.00E+00	2.32E-02
Cs-134	<1.86E-02	0.00E+00	1.86E-02
Cs-137	<1.89E-02	0.00E+00	1.89E-02
Be-7	<1.04E-01	0.00E+00	1.04E-01
K-40	4.65E-01	1.99E-01	2.29E-01

Sample ID: 463116 **Sample Dates: 11/13/2017 - 11/20/2017**

Nuclide	Activity	2 Sigma Error	MDA
I-131	<2.02E-02	0.00E+00	2.02E-02
Cs-134	<1.87E-02	0.00E+00	1.87E-02
Cs-137	<1.48E-02	0.00E+00	1.48E-02
Be-7	<1.32E-01	0.00E+00	1.32E-01
K-40	4.88E-01	1.86E-01	1.82E-01

Sample ID: 463527 **Sample Dates: 11/20/2017 - 11/27/2017**

Nuclide	Activity	2 Sigma Error	MDA
I-131	<1.88E-02	0.00E+00	1.88E-02
Cs-134	<1.72E-02	0.00E+00	1.72E-02
Cs-137	<1.68E-02	0.00E+00	1.68E-02
Be-7	<1.33E-01	0.00E+00	1.33E-01
K-40	4.46E-01	1.78E-01	1.81E-01

Sample ID: 464167 **Sample Dates: 11/27/2017 - 12/4/2017**

Nuclide	Activity	2 Sigma Error	MDA
I-131	<2.10E-02	0.00E+00	2.10E-02
Cs-134	<2.04E-02	0.00E+00	2.04E-02
Cs-137	<1.79E-02	0.00E+00	1.79E-02
Be-7	<1.23E-01	0.00E+00	1.23E-01
K-40	<4.07E-01	0.00E+00	4.07E-01

Sample ID: 464717 **Sample Dates: 12/4/2017 - 12/11/2017**

Nuclide	Activity	2 Sigma Error	MDA
I-131	<2.12E-02	0.00E+00	2.12E-02
Cs-134	<1.78E-02	0.00E+00	1.78E-02
Cs-137	<1.57E-02	0.00E+00	1.57E-02
Be-7	<1.28E-01	0.00E+00	1.28E-01
K-40	3.81E-01	1.60E-01	1.49E-01

Sample ID: 464990 **Sample Dates: 12/11/2017 - 12/18/2017**

Nuclide	Activity	2 Sigma Error	MDA
I-131	<2.01E-02	0.00E+00	2.01E-02
Cs-134	<1.52E-02	0.00E+00	1.52E-02
Cs-137	<1.92E-02	0.00E+00	1.92E-02
Be-7	<1.05E-01	0.00E+00	1.05E-01
K-40	4.11E-01	1.49E-01	3.48E-02

Sample ID: 465227 **Sample Dates: 12/18/2017 - 12/26/2017**

Nuclide	Activity	2 Sigma Error	MDA
I-131	<1.73E-02	0.00E+00	1.73E-02
Cs-134	<1.52E-02	0.00E+00	1.52E-02
Cs-137	<1.34E-02	0.00E+00	1.34E-02
Be-7	<1.05E-01	0.00E+00	1.05E-01
K-40	4.61E-01	1.58E-01	1.18E-01

Sample ID: 465641 **Sample Dates: 12/26/2017 - 1/2/2018**

Nuclide	Activity	2 Sigma Error	MDA
I-131	<2.36E-02	0.00E+00	2.36E-02
Cs-134	<1.86E-02	0.00E+00	1.86E-02
Cs-137	<1.68E-02	0.00E+00	1.68E-02
Be-7	<1.12E-01	0.00E+00	1.12E-01
K-40	4.22E-01	2.18E-01	2.96E-01

Sample Point 125 [INDICATOR - SW @ 0.38 miles]

Sample ID: 431829 **Sample Dates: 12/27/2016 - 1/3/2017**

Nuclide	Activity	2 Sigma Error	MDA
I-131	<8.68E-03	0.00E+00	8.68E-03
Cs-134	<1.05E-02	0.00E+00	1.05E-02
Cs-137	<6.42E-03	0.00E+00	6.42E-03
Be-7	<4.75E-02	0.00E+00	4.75E-02
K-40	3.96E-01	1.40E-01	3.16E-02

Sample ID: 432229 **Sample Dates: 1/3/2017 - 1/9/2017**

Nuclide	Activity	2 Sigma Error	MDA
I-131	<1.10E-02	0.00E+00	1.10E-02
Cs-134	<8.76E-03	0.00E+00	8.76E-03
Cs-137	<6.73E-03	0.00E+00	6.73E-03
Be-7	<5.58E-02	0.00E+00	5.58E-02
K-40	3.99E-01	1.46E-01	3.38E-02

MCGUIRE Radiological Environmental Monitoring Analysis Report - 2017 (Appendix E)

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

Sample Point 125 [INDICATOR - SW @ 0.38 miles]

Sample ID: 432930 **Sample Dates: 1/9/2017 - 1/16/2017**

Nuclide	Activity	2 Sigma Error	MDA
I-131	<9.89E-03	0.00E+00	9.89E-03
Cs-134	<7.84E-03	0.00E+00	7.84E-03
Cs-137	<8.05E-03	0.00E+00	8.05E-03
Be-7	<6.23E-02	0.00E+00	6.23E-02
K-40	3.48E-01	1.36E-01	1.14E-01

Sample ID: 433327 **Sample Dates: 1/16/2017 - 1/23/2017**

Nuclide	Activity	2 Sigma Error	MDA
I-131	<6.27E-03	0.00E+00	6.27E-03
Cs-134	<7.76E-03	0.00E+00	7.76E-03
Cs-137	<7.30E-03	0.00E+00	7.30E-03
Be-7	<4.67E-02	0.00E+00	4.67E-02
K-40	2.54E-01	1.49E-01	2.02E-01

Sample ID: 433745 **Sample Dates: 1/23/2017 - 1/30/2017**

Nuclide	Activity	2 Sigma Error	MDA
I-131	<9.43E-03	0.00E+00	9.43E-03
Cs-134	<5.72E-03	0.00E+00	5.72E-03
Cs-137	<7.10E-03	0.00E+00	7.10E-03
Be-7	<3.12E-02	0.00E+00	3.12E-02
K-40	4.51E-01	1.53E-01	1.02E-01

Sample ID: 434483 **Sample Dates: 1/30/2017 - 2/6/2017**

Nuclide	Activity	2 Sigma Error	MDA
I-131	<8.01E-03	0.00E+00	8.01E-03
Cs-134	<6.73E-03	0.00E+00	6.73E-03
Cs-137	<8.38E-03	0.00E+00	8.38E-03
Be-7	<5.30E-02	0.00E+00	5.30E-02
K-40	2.79E-01	1.56E-01	2.07E-01

Sample ID: 435126 **Sample Dates: 2/6/2017 - 2/13/2017**

Nuclide	Activity	2 Sigma Error	MDA
I-131	<8.76E-03	0.00E+00	8.76E-03
Cs-134	<6.43E-03	0.00E+00	6.43E-03
Cs-137	<7.32E-03	0.00E+00	7.32E-03
Be-7	<5.50E-02	0.00E+00	5.50E-02
K-40	1.99E-01	9.31E-02	2.84E-02

Sample ID: 435833 **Sample Dates: 2/13/2017 - 2/20/2017**

Nuclide	Activity	2 Sigma Error	MDA
I-131	<9.51E-03	0.00E+00	9.51E-03
Cs-134	<8.19E-03	0.00E+00	8.19E-03
Cs-137	<1.02E-02	0.00E+00	1.02E-02
Be-7	<6.51E-02	0.00E+00	6.51E-02
K-40	1.92E-01	1.03E-01	1.05E-01

Sample ID: 436284 **Sample Dates: 2/20/2017 - 2/27/2017**

Nuclide	Activity	2 Sigma Error	MDA
I-131	<5.02E-03	0.00E+00	5.02E-03
Cs-134	<8.64E-03	0.00E+00	8.64E-03
Cs-137	<7.76E-03	0.00E+00	7.76E-03
Be-7	<5.73E-02	0.00E+00	5.73E-02
K-40	<1.85E-01	0.00E+00	1.85E-01

Sample ID: 436738 **Sample Dates: 2/27/2017 - 3/6/2017**

Nuclide	Activity	2 Sigma Error	MDA
I-131	<5.74E-03	0.00E+00	5.74E-03
Cs-134	<6.00E-03	0.00E+00	6.00E-03
Cs-137	<8.15E-03	0.00E+00	8.15E-03
Be-7	<5.96E-02	0.00E+00	5.96E-02
K-40	2.14E-01	9.75E-02	2.90E-02

Sample ID: 437601 **Sample Dates: 3/6/2017 - 3/13/2017**

Nuclide	Activity	2 Sigma Error	MDA
I-131	<7.42E-03	0.00E+00	7.42E-03
Cs-134	<7.38E-03	0.00E+00	7.38E-03
Cs-137	<1.06E-02	0.00E+00	1.06E-02
Be-7	<5.87E-02	0.00E+00	5.87E-02
K-40	2.42E-01	1.03E-01	2.85E-02

Sample ID: 438325 **Sample Dates: 3/13/2017 - 3/20/2017**

Nuclide	Activity	2 Sigma Error	MDA
I-131	<1.09E-02	0.00E+00	1.09E-02
Cs-134	<8.11E-03	0.00E+00	8.11E-03
Cs-137	<1.01E-02	0.00E+00	1.01E-02
Be-7	<6.12E-02	0.00E+00	6.12E-02
K-40	<2.67E-01	0.00E+00	2.67E-01

MCGUIRE Radiological Environmental Monitoring Analysis Report - 2017 (Appendix E)

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

Sample Point 125 [INDICATOR - SW @ 0.38 miles]

Sample ID: 438829 **Sample Dates: 3/20/2017 - 3/27/2017**

Nuclide	Activity	2 Sigma Error	MDA
I-131	<7.61E-03	0.00E+00	7.61E-03
Cs-134	<5.73E-03	0.00E+00	5.73E-03
Cs-137	<1.07E-02	0.00E+00	1.08E-02
Be-7	<5.01E-02	0.00E+00	5.01E-02
K-40	1.12E-01	8.83E-02	1.20E-01

Sample ID: 439203 **Sample Dates: 3/27/2017 - 4/3/2017**

Nuclide	Activity	2 Sigma Error	MDA
I-131	<8.47E-03	0.00E+00	8.47E-03
Cs-134	<8.29E-03	0.00E+00	8.29E-03
Cs-137	<9.80E-03	0.00E+00	9.80E-03
Be-7	<4.29E-02	0.00E+00	4.29E-02
K-40	6.37E-02	8.40E-02	1.37E-01

Sample ID: 440028 **Sample Dates: 4/3/2017 - 4/10/2017**

Nuclide	Activity	2 Sigma Error	MDA
I-131	<8.56E-03	0.00E+00	8.56E-03
Cs-134	<7.11E-03	0.00E+00	7.11E-03
Cs-137	<1.07E-02	0.00E+00	1.07E-02
Be-7	<3.98E-02	0.00E+00	3.98E-02
K-40	3.97E-01	1.61E-01	1.65E-01

Sample ID: 440622 **Sample Dates: 4/10/2017 - 4/17/2017**

Nuclide	Activity	2 Sigma Error	MDA
I-131	<7.42E-03	0.00E+00	7.42E-03
Cs-134	<7.50E-03	0.00E+00	7.50E-03
Cs-137	<6.70E-03	0.00E+00	6.70E-03
Be-7	<5.17E-02	0.00E+00	5.17E-02
K-40	4.67E-01	1.51E-01	9.51E-02

Sample ID: 441437 **Sample Dates: 4/17/2017 - 4/24/2017**

Nuclide	Activity	2 Sigma Error	MDA
I-131	<7.97E-03	0.00E+00	7.97E-03
Cs-134	<6.14E-03	0.00E+00	6.14E-03
Cs-137	<5.41E-03	0.00E+00	5.41E-03
Be-7	<3.48E-02	0.00E+00	3.48E-02
K-40	3.79E-01	1.38E-01	1.12E-01

Sample ID: 441884 **Sample Dates: 4/24/2017 - 5/1/2017**

Nuclide	Activity	2 Sigma Error	MDA
I-131	<7.51E-03	0.00E+00	7.51E-03
Cs-134	<8.33E-03	0.00E+00	8.33E-03
Cs-137	<1.08E-02	0.00E+00	1.08E-02
Be-7	<4.28E-02	0.00E+00	4.28E-02
K-40	3.03E-01	1.25E-01	1.03E-01

Sample ID: 442334 **Sample Dates: 5/1/2017 - 5/8/2017**

Nuclide	Activity	2 Sigma Error	MDA
I-131	<6.92E-03	0.00E+00	6.92E-03
Cs-134	<7.40E-03	0.00E+00	7.40E-03
Cs-137	<8.03E-03	0.00E+00	8.03E-03
Be-7	<5.14E-02	0.00E+00	5.14E-02
K-40	2.41E-01	1.26E-01	1.49E-01

Sample ID: 442891 **Sample Dates: 5/8/2017 - 5/15/2017**

Nuclide	Activity	2 Sigma Error	MDA
I-131	<9.98E-03	0.00E+00	9.98E-03
Cs-134	<8.02E-03	0.00E+00	8.02E-03
Cs-137	<8.44E-03	0.00E+00	8.44E-03
Be-7	<6.12E-02	0.00E+00	6.12E-02
K-40	<2.81E-01	0.00E+00	2.81E-01

Sample ID: 443330 **Sample Dates: 5/15/2017 - 5/22/2017**

Nuclide	Activity	2 Sigma Error	MDA
I-131	<9.22E-03	0.00E+00	9.22E-03
Cs-134	<8.76E-03	0.00E+00	8.76E-03
Cs-137	<9.63E-03	0.00E+00	9.63E-03
Be-7	<5.27E-02	0.00E+00	5.27E-02
K-40	5.15E-01	1.50E-01	2.68E-02

Sample ID: 443880 **Sample Dates: 5/22/2017 - 5/30/2017**

Nuclide	Activity	2 Sigma Error	MDA
I-131	<7.30E-03	0.00E+00	7.30E-03
Cs-134	<5.29E-03	0.00E+00	5.29E-03
Cs-137	<8.21E-03	0.00E+00	8.21E-03
Be-7	<3.82E-02	0.00E+00	3.82E-02
K-40	1.66E-01	9.84E-02	1.19E-01

MCGUIRE Radiological Environmental Monitoring Analysis Report - 2017 (Appendix E)

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

Sample Point 125 [INDICATOR - SW @ 0.38 miles]

Sample ID: 444289 **Sample Dates: 5/30/2017 - 6/5/2017**

Nuclide	Activity	2 Sigma Error	MDA
I-131	<1.02E-02	0.00E+00	1.02E-02
Cs-134	<8.93E-03	0.00E+00	8.93E-03
Cs-137	<1.31E-02	0.00E+00	1.31E-02
Be-7	<6.60E-02	0.00E+00	6.60E-02
K-40	<2.91E-01	0.00E+00	2.91E-01

Sample ID: 445347 **Sample Dates: 6/5/2017 - 6/12/2017**

Nuclide	Activity	2 Sigma Error	MDA
I-131	<1.01E-02	0.00E+00	1.01E-02
Cs-134	<3.78E-03	0.00E+00	3.78E-03
Cs-137	<1.07E-02	0.00E+00	1.07E-02
Be-7	<6.75E-02	0.00E+00	6.75E-02
K-40	2.51E-01	1.07E-01	2.96E-02

Sample ID: 446351 **Sample Dates: 6/12/2017 - 6/19/2017**

Nuclide	Activity	2 Sigma Error	MDA
I-131	<6.64E-03	0.00E+00	6.64E-03
Cs-134	<9.37E-03	0.00E+00	9.37E-03
Cs-137	<1.08E-02	0.00E+00	1.08E-02
Be-7	<6.60E-02	0.00E+00	6.60E-02
K-40	1.84E-01	1.16E-01	1.49E-01

Sample ID: 446847 **Sample Dates: 6/19/2017 - 6/26/2017**

Nuclide	Activity	2 Sigma Error	MDA
I-131	<5.76E-03	0.00E+00	5.76E-03
Cs-134	<6.05E-03	0.00E+00	6.05E-03
Cs-137	<9.40E-03	0.00E+00	9.40E-03
Be-7	<6.35E-02	0.00E+00	6.35E-02
K-40	<1.96E-01	0.00E+00	1.96E-01

Sample ID: 447217 **Sample Dates: 6/26/2017 - 7/3/2017**

Nuclide	Activity	2 Sigma Error	MDA
I-131	<9.83E-03	0.00E+00	9.83E-03
Cs-134	<8.05E-03	0.00E+00	8.05E-03
Cs-137	<1.25E-02	0.00E+00	1.25E-02
Be-7	<5.68E-02	0.00E+00	5.68E-02
K-40	2.61E-01	1.21E-01	1.11E-01

Sample ID: 447829 **Sample Dates: 7/3/2017 - 7/10/2017**

Nuclide	Activity	2 Sigma Error	MDA
I-131	<7.86E-03	0.00E+00	7.86E-03
Cs-134	<6.91E-03	0.00E+00	6.91E-03
Cs-137	<9.14E-03	0.00E+00	9.14E-03
Be-7	<5.10E-02	0.00E+00	5.10E-02
K-40	<2.57E-01	0.00E+00	2.57E-01

Sample ID: 448301 **Sample Dates: 7/10/2017 - 7/17/2017**

Nuclide	Activity	2 Sigma Error	MDA
I-131	<7.06E-03	0.00E+00	7.06E-03
Cs-134	<6.24E-03	0.00E+00	6.24E-03
Cs-137	<9.38E-03	0.00E+00	9.38E-03
Be-7	<5.38E-02	0.00E+00	5.38E-02
K-40	<1.98E-01	0.00E+00	1.98E-01

Sample ID: 448915 **Sample Dates: 7/17/2017 - 7/24/2017**

Nuclide	Activity	2 Sigma Error	MDA
I-131	<7.52E-03	0.00E+00	7.52E-03
Cs-134	<9.13E-03	0.00E+00	9.13E-03
Cs-137	<8.82E-03	0.00E+00	8.82E-03
Be-7	<5.24E-02	0.00E+00	5.24E-02
K-40	<2.53E-01	0.00E+00	2.53E-01

Sample ID: 449246 **Sample Dates: 7/24/2017 - 7/31/2017**

Nuclide	Activity	2 Sigma Error	MDA
I-131	<6.87E-03	0.00E+00	6.87E-03
Cs-134	<7.80E-03	0.00E+00	7.80E-03
Cs-137	<1.07E-02	0.00E+00	1.07E-02
Be-7	<6.20E-02	0.00E+00	6.20E-02
K-40	1.47E-01	9.86E-02	1.24E-01

Sample ID: 449967 **Sample Dates: 7/31/2017 - 8/7/2017**

Nuclide	Activity	2 Sigma Error	MDA
I-131	<6.27E-03	0.00E+00	6.27E-03
Cs-134	<7.29E-03	0.00E+00	7.29E-03
Cs-137	<9.57E-03	0.00E+00	9.57E-03
Be-7	<4.64E-02	0.00E+00	4.64E-02
K-40	1.56E-01	8.16E-02	2.81E-02

MCGUIRE Radiological Environmental Monitoring Analysis Report - 2017 (Appendix E)

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

Sample Point 125 [INDICATOR - SW @ 0.38 miles]

Sample ID: 450228 **Sample Dates: 8/7/2017 - 8/14/2017**

Nuclide	Activity	2 Sigma Error	MDA
I-131	<1.19E-02	0.00E+00	1.19E-02
Cs-134	<7.82E-03	0.00E+00	7.82E-03
Cs-137	<8.48E-03	0.00E+00	8.48E-03
Be-7	<6.31E-02	0.00E+00	6.31E-02
K-40	2.94E-01	1.16E-01	2.95E-02

Sample ID: 450748 **Sample Dates: 8/14/2017 - 8/21/2017**

Nuclide	Activity	2 Sigma Error	MDA
I-131	<8.09E-03	0.00E+00	8.09E-03
Cs-134	<7.25E-03	0.00E+00	7.25E-03
Cs-137	<1.25E-02	0.00E+00	1.25E-02
Be-7	<6.92E-02	0.00E+00	6.92E-02
K-40	<2.26E-01	0.00E+00	2.26E-01

Sample ID: 451214 **Sample Dates: 8/21/2017 - 8/28/2017**

Nuclide	Activity	2 Sigma Error	MDA
I-131	<7.37E-03	0.00E+00	7.37E-03
Cs-134	<7.78E-03	0.00E+00	7.78E-03
Cs-137	<1.02E-02	0.00E+00	1.02E-02
Be-7	<5.11E-02	0.00E+00	5.11E-02
K-40	2.73E-01	1.10E-01	2.84E-02

Sample ID: 451558 **Sample Dates: 8/28/2017 - 9/5/2017**

Nuclide	Activity	2 Sigma Error	MDA
I-131	<7.87E-03	0.00E+00	7.87E-03
Cs-134	<7.78E-03	0.00E+00	7.78E-03
Cs-137	<8.81E-03	0.00E+00	8.81E-03
Be-7	<4.69E-02	0.00E+00	4.69E-02
K-40	1.99E-01	8.86E-02	2.57E-02

Sample ID: 452381 **Sample Dates: 9/5/2017 - 9/11/2017**

Nuclide	Activity	2 Sigma Error	MDA
I-131	<9.36E-03	0.00E+00	9.36E-03
Cs-134	<9.81E-03	0.00E+00	9.81E-03
Cs-137	<1.01E-02	0.00E+00	1.01E-02
Be-7	<6.92E-02	0.00E+00	6.92E-02
K-40	2.01E-01	1.16E-01	1.22E-01

Sample ID: 452808 **Sample Dates: 9/11/2017 - 9/18/2017**

Nuclide	Activity	2 Sigma Error	MDA
I-131	<1.00E-02	0.00E+00	1.00E-02
Cs-134	<6.60E-03	0.00E+00	6.60E-03
Cs-137	<1.14E-02	0.00E+00	1.14E-02
Be-7	<6.51E-02	0.00E+00	6.51E-02
K-40	1.96E-01	1.28E-01	1.70E-01

Sample ID: 453469 **Sample Dates: 9/18/2017 - 9/25/2017**

Nuclide	Activity	2 Sigma Error	MDA
I-131	<7.39E-03	0.00E+00	7.39E-03
Cs-134	<6.99E-03	0.00E+00	6.99E-03
Cs-137	<1.16E-02	0.00E+00	1.16E-02
Be-7	<5.53E-02	0.00E+00	5.53E-02
K-40	<2.32E-01	0.00E+00	2.32E-01

Sample ID: 454239 **Sample Dates: 9/25/2017 - 10/2/2017**

Nuclide	Activity	2 Sigma Error	MDA
I-131	<1.79E-02	0.00E+00	1.79E-02
Cs-134	<1.60E-02	0.00E+00	1.60E-02
Cs-137	<1.82E-02	0.00E+00	1.82E-02
Be-7	<1.03E-01	0.00E+00	1.03E-01
K-40	3.85E-01	1.57E-01	1.46E-01

Sample ID: 455096 **Sample Dates: 10/2/2017 - 10/9/2017**

Nuclide	Activity	2 Sigma Error	MDA
I-131	<1.65E-02	0.00E+00	1.65E-02
Cs-134	<1.46E-02	0.00E+00	1.46E-02
Cs-137	<1.12E-02	0.00E+00	1.12E-02
Be-7	<9.87E-02	0.00E+00	9.87E-02
K-40	2.37E-01	1.42E-01	1.85E-01

Sample ID: 455435 **Sample Dates: 10/9/2017 - 10/16/2017**

Nuclide	Activity	2 Sigma Error	MDA
I-131	<1.61E-02	0.00E+00	1.61E-02
Cs-134	<1.71E-02	0.00E+00	1.71E-02
Cs-137	<1.42E-02	0.00E+00	1.42E-02
Be-7	<9.78E-02	0.00E+00	9.78E-02
K-40	2.23E-01	1.31E-01	1.58E-01

MCGUIRE Radiological Environmental Monitoring Analysis Report - 2017 (Appendix E)

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

Sample Point 125 [INDICATOR - SW @ 0.38 miles]

Sample ID: 456067 **Sample Dates: 10/16/2017 - 10/23/2017**

Nuclide	Activity	2 Sigma Error	MDA
I-131	<1.39E-02	0.00E+00	1.39E-02
Cs-134	<1.80E-02	0.00E+00	1.80E-02
Cs-137	<1.17E-02	0.00E+00	1.17E-02
Be-7	<9.12E-02	0.00E+00	9.12E-02
K-40	<2.63E-01	0.00E+00	2.63E-01

Sample ID: 461434 **Sample Dates: 10/23/2017 - 10/30/2017**

Nuclide	Activity	2 Sigma Error	MDA
I-131	<1.97E-02	0.00E+00	1.97E-02
Cs-134	<1.67E-02	0.00E+00	1.67E-02
Cs-137	<1.74E-02	0.00E+00	1.74E-02
Be-7	<1.35E-01	0.00E+00	1.35E-01
K-40	4.23E-01	1.75E-01	1.81E-01

Sample ID: 461989 **Sample Dates: 10/30/2017 - 11/6/2017**

Nuclide	Activity	2 Sigma Error	MDA
I-131	<2.00E-02	0.00E+00	2.00E-02
Cs-134	<1.40E-02	0.00E+00	1.40E-02
Cs-137	<1.74E-02	0.00E+00	1.74E-02
Be-7	<1.26E-01	0.00E+00	1.26E-01
K-40	5.16E-01	1.97E-01	2.09E-01

Sample ID: 462621 **Sample Dates: 11/6/2017 - 11/13/2017**

Nuclide	Activity	2 Sigma Error	MDA
I-131	<2.12E-02	0.00E+00	2.12E-02
Cs-134	<1.57E-02	0.00E+00	1.57E-02
Cs-137	<1.27E-02	0.00E+00	1.27E-02
Be-7	<1.18E-01	0.00E+00	1.18E-01
K-40	4.55E-01	1.82E-01	1.81E-01

Sample ID: 463117 **Sample Dates: 11/13/2017 - 11/20/2017**

Nuclide	Activity	2 Sigma Error	MDA
I-131	<2.10E-02	0.00E+00	2.10E-02
Cs-134	<2.15E-02	0.00E+00	2.15E-02
Cs-137	<1.88E-02	0.00E+00	1.88E-02
Be-7	<1.18E-01	0.00E+00	1.18E-01
K-40	4.41E-01	2.05E-01	2.57E-01

Sample ID: 463528 **Sample Dates: 11/20/2017 - 11/27/2017**

Nuclide	Activity	2 Sigma Error	MDA
I-131	<1.74E-02	0.00E+00	1.74E-02
Cs-134	<1.66E-02	0.00E+00	1.66E-02
Cs-137	<1.91E-02	0.00E+00	1.91E-02
Be-7	<8.87E-02	0.00E+00	8.87E-02
K-40	5.06E-01	1.91E-01	1.91E-01

Sample ID: 464168 **Sample Dates: 11/27/2017 - 12/4/2017**

Nuclide	Activity	2 Sigma Error	MDA
I-131	<2.08E-02	0.00E+00	2.08E-02
Cs-134	<1.75E-02	0.00E+00	1.75E-02
Cs-137	<1.50E-02	0.00E+00	1.50E-02
Be-7	<1.23E-01	0.00E+00	1.23E-01
K-40	4.61E-01	2.00E-01	2.40E-01

Sample ID: 464718 **Sample Dates: 12/4/2017 - 12/11/2017**

Nuclide	Activity	2 Sigma Error	MDA
I-131	<2.21E-02	0.00E+00	2.21E-02
Cs-134	<2.04E-02	0.00E+00	2.04E-02
Cs-137	<1.93E-02	0.00E+00	1.93E-02
Be-7	<1.28E-01	0.00E+00	1.28E-01
K-40	5.71E-01	2.09E-01	2.12E-01

Sample ID: 464991 **Sample Dates: 12/11/2017 - 12/18/2017**

Nuclide	Activity	2 Sigma Error	MDA
I-131	<2.09E-02	0.00E+00	2.09E-02
Cs-134	<1.67E-02	0.00E+00	1.67E-02
Cs-137	<1.96E-02	0.00E+00	1.96E-02
Be-7	<1.24E-01	0.00E+00	1.24E-01
K-40	3.04E-01	1.57E-01	1.85E-01

Sample ID: 465228 **Sample Dates: 12/18/2017 - 12/26/2017**

Nuclide	Activity	2 Sigma Error	MDA
I-131	<2.24E-02	0.00E+00	2.24E-02
Cs-134	<1.69E-02	0.00E+00	1.69E-02
Cs-137	<1.75E-02	0.00E+00	1.75E-02
Be-7	<8.72E-02	0.00E+00	8.72E-02
K-40	3.81E-01	1.74E-01	2.13E-01

MCGUIRE Radiological Environmental Monitoring Analysis Report - 2017 (Appendix E)

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

Sample Point 125 [INDICATOR - SW @ 0.38 miles]

Sample ID: 465642 **Sample Dates: 12/26/2017 - 1/2/2018**

Nuclide	Activity	2 Sigma Error	MDA
I-131	<2.15E-02	0.00E+00	2.15E-02
Cs-134	<1.11E-02	0.00E+00	1.11E-02
Cs-137	<1.64E-02	0.00E+00	1.64E-02
Be-7	<1.15E-01	0.00E+00	1.15E-01
K-40	6.70E-01	2.08E-01	1.75E-01

Sample Point 133 [INDICATOR - ENE @ 6.23 miles]

Sample ID: 431830 **Sample Dates: 12/27/2016 - 1/3/2017**

Nuclide	Activity	2 Sigma Error	MDA
I-131	<7.30E-03	0.00E+00	7.30E-03
Cs-134	<8.10E-03	0.00E+00	8.10E-03
Cs-137	<8.78E-03	0.00E+00	8.78E-03
Be-7	<4.00E-02	0.00E+00	4.00E-02
K-40	5.76E-01	1.68E-01	3.06E-02

Sample ID: 432230 **Sample Dates: 1/3/2017 - 1/9/2017**

Nuclide	Activity	2 Sigma Error	MDA
I-131	<1.21E-02	0.00E+00	1.21E-02
Cs-134	<8.19E-03	0.00E+00	8.19E-03
Cs-137	<8.36E-03	0.00E+00	8.36E-03
Be-7	<5.33E-02	0.00E+00	5.33E-02
K-40	4.31E-01	1.72E-01	1.58E-01

Sample ID: 432931 **Sample Dates: 1/9/2017 - 1/16/2017**

Nuclide	Activity	2 Sigma Error	MDA
I-131	<7.40E-03	0.00E+00	7.40E-03
Cs-134	<7.06E-03	0.00E+00	7.06E-03
Cs-137	<8.79E-03	0.00E+00	8.79E-03
Be-7	<5.58E-02	0.00E+00	5.58E-02
K-40	3.72E-01	1.55E-01	1.60E-01

Sample ID: 433328 **Sample Dates: 1/16/2017 - 1/23/2017**

Nuclide	Activity	2 Sigma Error	MDA
I-131	<9.77E-03	0.00E+00	9.77E-03
Cs-134	<5.74E-03	0.00E+00	5.74E-03
Cs-137	<7.97E-03	0.00E+00	7.97E-03
Be-7	<5.95E-02	0.00E+00	5.95E-02
K-40	2.71E-01	1.46E-01	1.83E-01

Sample ID: 433746 **Sample Dates: 1/23/2017 - 1/30/2017**

Nuclide	Activity	2 Sigma Error	MDA
I-131	<7.86E-03	0.00E+00	7.86E-03
Cs-134	<7.71E-03	0.00E+00	7.71E-03
Cs-137	<5.61E-03	0.00E+00	5.61E-03
Be-7	<5.86E-02	0.00E+00	5.86E-02
K-40	4.36E-01	1.40E-01	2.82E-02

Sample ID: 434484 **Sample Dates: 1/30/2017 - 2/6/2017**

Nuclide	Activity	2 Sigma Error	MDA
I-131	<8.21E-03	0.00E+00	8.21E-03
Cs-134	<9.98E-03	0.00E+00	9.98E-03
Cs-137	<1.03E-02	0.00E+00	1.03E-02
Be-7	<6.55E-02	0.00E+00	6.55E-02
K-40	5.08E-01	1.59E-01	3.13E-02

Sample ID: 435127 **Sample Dates: 2/6/2017 - 2/13/2017**

Nuclide	Activity	2 Sigma Error	MDA
I-131	<5.24E-03	0.00E+00	5.24E-03
Cs-134	<8.47E-03	0.00E+00	8.47E-03
Cs-137	<1.05E-02	0.00E+00	1.05E-02
Be-7	<7.35E-02	0.00E+00	7.35E-02
K-40	1.96E-01	1.19E-01	1.47E-01

Sample ID: 435834 **Sample Dates: 2/13/2017 - 2/20/2017**

Nuclide	Activity	2 Sigma Error	MDA
I-131	<7.95E-03	0.00E+00	7.95E-03
Cs-134	<5.78E-03	0.00E+00	5.78E-03
Cs-137	<1.06E-02	0.00E+00	1.06E-02
Be-7	<1.15E-02	0.00E+00	1.15E-02
K-40	<1.88E-01	0.00E+00	1.87E-01

Sample ID: 436285 **Sample Dates: 2/20/2017 - 2/27/2017**

Nuclide	Activity	2 Sigma Error	MDA
I-131	<9.89E-03	0.00E+00	9.89E-03
Cs-134	<7.46E-03	0.00E+00	7.46E-03
Cs-137	<9.27E-03	0.00E+00	9.27E-03
Be-7	<5.95E-02	0.00E+00	5.95E-02
K-40	1.55E-01	8.39E-02	3.00E-02

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

Sample Point 133 [INDICATOR - ENE @ 6.23 miles]

Sample ID: 436739 **Sample Dates: 2/27/2017 - 3/6/2017**

Nuclide	Activity	2 Sigma Error	MDA
I-131	<7.98E-03	0.00E+00	7.98E-03
Cs-134	<4.97E-03	0.00E+00	4.97E-03
Cs-137	<8.74E-03	0.00E+00	8.74E-03
Be-7	<5.55E-02	0.00E+00	5.55E-02
K-40	3.03E-01	1.20E-01	3.04E-02

Sample ID: 437602 **Sample Dates: 3/6/2017 - 3/13/2017**

Nuclide	Activity	2 Sigma Error	MDA
I-131	<7.40E-03	0.00E+00	7.40E-03
Cs-134	<4.98E-03	0.00E+00	4.98E-03
Cs-137	<1.00E-02	0.00E+00	1.00E-02
Be-7	<1.15E-02	0.00E+00	1.15E-02
K-40	1.80E-01	9.11E-02	3.04E-02

Sample ID: 438326 **Sample Dates: 3/13/2017 - 3/20/2017**

Nuclide	Activity	2 Sigma Error	MDA
I-131	<7.39E-03	0.00E+00	7.39E-03
Cs-134	<6.42E-03	0.00E+00	6.42E-03
Cs-137	<1.06E-02	0.00E+00	1.06E-02
Be-7	<4.24E-02	0.00E+00	4.24E-02
K-40	<1.97E-01	0.00E+00	1.97E-01

Sample ID: 438830 **Sample Dates: 3/20/2017 - 3/27/2017**

Nuclide	Activity	2 Sigma Error	MDA
I-131	<1.12E-02	0.00E+00	1.12E-02
Cs-134	<6.36E-03	0.00E+00	6.36E-03
Cs-137	<9.88E-03	0.00E+00	9.88E-03
Be-7	<5.07E-02	0.00E+00	5.07E-02
K-40	2.14E-01	1.22E-01	1.48E-01

Sample ID: 439204 **Sample Dates: 3/27/2017 - 4/3/2017**

Nuclide	Activity	2 Sigma Error	MDA
I-131	<7.95E-03	0.00E+00	7.95E-03
Cs-134	<7.06E-03	0.00E+00	7.06E-03
Cs-137	<1.26E-02	0.00E+00	1.26E-02
Be-7	<4.62E-02	0.00E+00	4.62E-02
K-40	2.33E-01	1.24E-01	1.41E-01

Sample ID: 440029 **Sample Dates: 4/3/2017 - 4/10/2017**

Nuclide	Activity	2 Sigma Error	MDA
I-131	<9.58E-03	0.00E+00	9.58E-03
Cs-134	<7.55E-03	0.00E+00	7.55E-03
Cs-137	<8.21E-03	0.00E+00	8.21E-03
Be-7	<4.27E-02	0.00E+00	4.27E-02
K-40	3.52E-01	1.33E-01	1.03E-01

Sample ID: 440623 **Sample Dates: 4/10/2017 - 4/17/2017**

Nuclide	Activity	2 Sigma Error	MDA
I-131	<7.12E-03	0.00E+00	7.12E-03
Cs-134	<7.20E-03	0.00E+00	7.20E-03
Cs-137	<9.55E-03	0.00E+00	9.55E-03
Be-7	<4.35E-02	0.00E+00	4.35E-02
K-40	4.94E-01	1.99E-01	2.39E-01

Sample ID: 441438 **Sample Dates: 4/17/2017 - 4/24/2017**

Nuclide	Activity	2 Sigma Error	MDA
I-131	<1.18E-02	0.00E+00	1.18E-02
Cs-134	<8.05E-03	0.00E+00	8.05E-03
Cs-137	<8.27E-03	0.00E+00	8.27E-03
Be-7	<6.06E-02	0.00E+00	6.06E-02
K-40	4.42E-01	1.43E-01	2.92E-02

Sample ID: 441885 **Sample Dates: 4/24/2017 - 5/1/2017**

Nuclide	Activity	2 Sigma Error	MDA
I-131	<7.60E-03	0.00E+00	7.60E-03
Cs-134	<9.93E-03	0.00E+00	9.93E-03
Cs-137	<1.08E-02	0.00E+00	1.08E-02
Be-7	<5.21E-02	0.00E+00	5.21E-02
K-40	5.13E-01	1.72E-01	1.36E-01

Sample ID: 442335 **Sample Dates: 5/1/2017 - 5/8/2017**

Nuclide	Activity	2 Sigma Error	MDA
I-131	<8.52E-03	0.00E+00	8.52E-03
Cs-134	<7.05E-03	0.00E+00	7.05E-03
Cs-137	<1.12E-02	0.00E+00	1.12E-02
Be-7	<7.09E-02	0.00E+00	7.09E-02
K-40	4.28E-01	1.44E-01	3.05E-02

MCGUIRE Radiological Environmental Monitoring Analysis Report - 2017 (Appendix E)

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

Sample Point 133 [INDICATOR - ENE @ 6.23 miles]

Sample ID: 442892 **Sample Dates: 5/8/2017 - 5/15/2017**

Nuclide	Activity	2 Sigma Error	MDA
I-131	<1.03E-02	0.00E+00	1.03E-02
Cs-134	<7.70E-03	0.00E+00	7.70E-03
Cs-137	<7.30E-03	0.00E+00	7.30E-03
Be-7	<5.25E-02	0.00E+00	5.25E-02
K-40	3.20E-01	1.47E-01	1.62E-01

Sample ID: 443331 **Sample Dates: 5/15/2017 - 5/22/2017**

Nuclide	Activity	2 Sigma Error	MDA
I-131	<1.02E-02	0.00E+00	1.02E-02
Cs-134	<5.71E-03	0.00E+00	5.71E-03
Cs-137	<7.09E-03	0.00E+00	7.09E-03
Be-7	<5.71E-02	0.00E+00	5.71E-02
K-40	3.59E-01	1.51E-01	1.66E-01

Sample ID: 443881 **Sample Dates: 5/22/2017 - 5/30/2017**

Nuclide	Activity	2 Sigma Error	MDA
I-131	<6.15E-03	0.00E+00	6.15E-03
Cs-134	<6.24E-03	0.00E+00	6.24E-03
Cs-137	<8.26E-03	0.00E+00	8.26E-03
Be-7	<5.31E-02	0.00E+00	5.31E-02
K-40	9.58E-02	7.60E-02	1.02E-01

Sample ID: 444290 **Sample Dates: 5/30/2017 - 6/5/2017**

Nuclide	Activity	2 Sigma Error	MDA
I-131	<1.08E-02	0.00E+00	1.08E-02
Cs-134	<1.06E-02	0.00E+00	1.06E-02
Cs-137	<1.25E-02	0.00E+00	1.25E-02
Be-7	<5.42E-02	0.00E+00	5.42E-02
K-40	<2.22E-01	0.00E+00	2.22E-01

Sample ID: 445348 **Sample Dates: 6/5/2017 - 6/12/2017**

Nuclide	Activity	2 Sigma Error	MDA
I-131	<7.61E-03	0.00E+00	7.61E-03
Cs-134	<7.71E-03	0.00E+00	7.71E-03
Cs-137	<1.11E-02	0.00E+00	1.11E-02
Be-7	<5.71E-02	0.00E+00	5.71E-02
K-40	3.16E-01	1.21E-01	2.96E-02

Sample ID: 446352 **Sample Dates: 6/12/2017 - 6/19/2017**

Nuclide	Activity	2 Sigma Error	MDA
I-131	<7.78E-03	0.00E+00	7.78E-03
Cs-134	<6.84E-03	0.00E+00	6.84E-03
Cs-137	<9.04E-03	0.00E+00	9.04E-03
Be-7	<4.19E-02	0.00E+00	4.19E-02
K-40	1.55E-01	8.15E-02	2.81E-02

Sample ID: 446848 **Sample Dates: 6/19/2017 - 6/26/2017**

Nuclide	Activity	2 Sigma Error	MDA
I-131	<8.53E-03	0.00E+00	8.53E-03
Cs-134	<9.00E-03	0.00E+00	9.00E-03
Cs-137	<8.80E-03	0.00E+00	8.80E-03
Be-7	<5.59E-02	0.00E+00	5.59E-02
K-40	<1.97E-01	0.00E+00	1.97E-01

Sample ID: 447218 **Sample Dates: 6/26/2017 - 7/3/2017**

Nuclide	Activity	2 Sigma Error	MDA
I-131	<9.15E-03	0.00E+00	9.15E-03
Cs-134	<7.53E-03	0.00E+00	7.53E-03
Cs-137	<1.17E-02	0.00E+00	1.17E-02
Be-7	<5.69E-02	0.00E+00	5.69E-02
K-40	<2.05E-01	0.00E+00	2.05E-01

Sample ID: 447830 **Sample Dates: 7/3/2017 - 7/10/2017**

Nuclide	Activity	2 Sigma Error	MDA
I-131	<5.54E-03	0.00E+00	5.54E-03
Cs-134	<5.77E-03	0.00E+00	5.77E-03
Cs-137	<7.18E-03	0.00E+00	7.18E-03
Be-7	<4.59E-02	0.00E+00	4.59E-02
K-40	<2.13E-01	0.00E+00	2.13E-01

Sample ID: 448302 **Sample Dates: 7/10/2017 - 7/17/2017**

Nuclide	Activity	2 Sigma Error	MDA
I-131	<9.38E-03	0.00E+00	9.38E-03
Cs-134	<4.91E-03	0.00E+00	4.91E-03
Cs-137	<1.04E-02	0.00E+00	1.04E-02
Be-7	<5.52E-02	0.00E+00	5.52E-02
K-40	<2.42E-01	0.00E+00	2.42E-01

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

Sample Point 133 [INDICATOR - ENE @ 6.23 miles]

Sample ID: 448916 **Sample Dates: 7/17/2017 - 7/24/2017**

Nuclide	Activity	2 Sigma Error	MDA
I-131	<6.09E-03	0.00E+00	6.09E-03
Cs-134	<6.48E-03	0.00E+00	6.48E-03
Cs-137	<1.17E-02	0.00E+00	1.17E-02
Be-7	<6.40E-02	0.00E+00	6.40E-02
K-40	2.82E-01	1.16E-01	3.06E-02

Sample ID: 449247 **Sample Dates: 7/24/2017 - 7/31/2017**

Nuclide	Activity	2 Sigma Error	MDA
I-131	<9.37E-03	0.00E+00	9.37E-03
Cs-134	<7.56E-03	0.00E+00	7.56E-03
Cs-137	<9.41E-03	0.00E+00	9.41E-03
Be-7	<4.56E-02	0.00E+00	4.56E-02
K-40	2.02E-01	1.15E-01	1.33E-01

Sample ID: 449968 **Sample Dates: 7/31/2017 - 8/7/2017**

Nuclide	Activity	2 Sigma Error	MDA
I-131	<1.02E-02	0.00E+00	1.02E-02
Cs-134	<7.95E-03	0.00E+00	7.95E-03
Cs-137	<1.10E-02	0.00E+00	1.10E-02
Be-7	<6.29E-02	0.00E+00	6.29E-02
K-40	1.39E-01	9.01E-02	9.98E-02

Sample ID: 450229 **Sample Dates: 8/7/2017 - 8/14/2017**

Nuclide	Activity	2 Sigma Error	MDA
I-131	<7.93E-03	0.00E+00	7.93E-03
Cs-134	<7.01E-03	0.00E+00	7.01E-03
Cs-137	<8.10E-03	0.00E+00	8.10E-03
Be-7	<6.35E-02	0.00E+00	6.35E-02
K-40	<2.40E-01	0.00E+00	2.40E-01

Sample ID: 450749 **Sample Dates: 8/14/2017 - 8/21/2017**

Nuclide	Activity	2 Sigma Error	MDA
I-131	<7.90E-03	0.00E+00	7.90E-03
Cs-134	<6.08E-03	0.00E+00	6.08E-03
Cs-137	<1.05E-02	0.00E+00	1.05E-02
Be-7	<5.98E-02	0.00E+00	5.98E-02
K-40	<2.20E-01	0.00E+00	2.20E-01

Sample ID: 451215 **Sample Dates: 8/21/2017 - 8/28/2017**

Nuclide	Activity	2 Sigma Error	MDA
I-131	<1.13E-02	0.00E+00	1.13E-02
Cs-134	<1.45E-03	0.00E+00	1.45E-03
Cs-137	<1.06E-02	0.00E+00	1.06E-02
Be-7	<6.36E-02	0.00E+00	6.36E-02
K-40	3.70E-01	1.33E-01	3.04E-02

Sample ID: 451559 **Sample Dates: 8/28/2017 - 9/5/2017**

Nuclide	Activity	2 Sigma Error	MDA
I-131	<7.55E-03	0.00E+00	7.55E-03
Cs-134	<5.01E-03	0.00E+00	5.01E-03
Cs-137	<8.22E-03	0.00E+00	8.22E-03
Be-7	<5.36E-02	0.00E+00	5.36E-02
K-40	<2.04E-01	0.00E+00	2.04E-01

Sample ID: 452382 **Sample Dates: 9/5/2017 - 9/11/2017**

Nuclide	Activity	2 Sigma Error	MDA
I-131	<6.67E-03	0.00E+00	6.67E-03
Cs-134	<8.14E-03	0.00E+00	8.14E-03
Cs-137	<1.01E-02	0.00E+00	1.01E-02
Be-7	<7.24E-02	0.00E+00	7.24E-02
K-40	1.36E-01	1.09E-01	1.50E-01

Sample ID: 452809 **Sample Dates: 9/11/2017 - 9/18/2017**

Nuclide	Activity	2 Sigma Error	MDA
I-131	<8.40E-03	0.00E+00	8.40E-03
Cs-134	<5.44E-03	0.00E+00	5.44E-03
Cs-137	<1.05E-02	0.00E+00	1.05E-02
Be-7	<5.98E-02	0.00E+00	5.98E-02
K-40	2.65E-01	1.08E-01	2.87E-02

Sample ID: 453470 **Sample Dates: 9/18/2017 - 9/25/2017**

Nuclide	Activity	2 Sigma Error	MDA
I-131	<7.79E-03	0.00E+00	7.79E-03
Cs-134	<5.77E-03	0.00E+00	5.77E-03
Cs-137	<1.04E-02	0.00E+00	1.04E-02
Be-7	<5.73E-02	0.00E+00	5.73E-02
K-40	1.60E-01	1.07E-01	1.40E-01

MCGUIRE Radiological Environmental Monitoring Analysis Report - 2017 (Appendix E)

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

Sample Point 133 [INDICATOR - ENE @ 6.23 miles]

Sample ID: 454240 **Sample Dates: 9/25/2017 - 10/2/2017**

Nuclide	Activity	2 Sigma Error	MDA
I-131	<1.59E-02	0.00E+00	1.59E-02
Cs-134	<1.71E-02	0.00E+00	1.71E-02
Cs-137	<1.31E-02	0.00E+00	1.31E-02
Be-7	<9.41E-02	0.00E+00	9.41E-02
K-40	<3.18E-01	0.00E+00	3.18E-01

Sample ID: 455097 **Sample Dates: 10/2/2017 - 10/9/2017**

Nuclide	Activity	2 Sigma Error	MDA
I-131	<1.67E-02	0.00E+00	1.67E-02
Cs-134	<1.30E-02	0.00E+00	1.30E-02
Cs-137	<1.55E-02	0.00E+00	1.55E-02
Be-7	<1.03E-01	0.00E+00	1.03E-01
K-40	4.07E-01	2.04E-01	2.67E-01

Sample ID: 455436 **Sample Dates: 10/9/2017 - 10/16/2017**

Nuclide	Activity	2 Sigma Error	MDA
I-131	<1.56E-02	0.00E+00	1.56E-02
Cs-134	<1.36E-02	0.00E+00	1.36E-02
Cs-137	<1.56E-02	0.00E+00	1.56E-02
Be-7	<9.34E-02	0.00E+00	9.34E-02
K-40	2.39E-01	1.31E-01	1.41E-01

Sample ID: 456068 **Sample Dates: 10/16/2017 - 10/23/2017**

Nuclide	Activity	2 Sigma Error	MDA
I-131	<1.32E-02	0.00E+00	1.32E-02
Cs-134	<1.54E-02	0.00E+00	1.54E-02
Cs-137	<1.54E-02	0.00E+00	1.54E-02
Be-7	<1.06E-01	0.00E+00	1.06E-01
K-40	2.84E-01	1.54E-01	1.85E-01

Sample ID: 461435 **Sample Dates: 10/23/2017 - 10/30/2017**

Nuclide	Activity	2 Sigma Error	MDA
I-131	<1.98E-02	0.00E+00	1.98E-02
Cs-134	<1.73E-02	0.00E+00	1.73E-02
Cs-137	<1.69E-02	0.00E+00	1.69E-02
Be-7	<8.54E-02	0.00E+00	8.54E-02
K-40	5.00E-01	1.91E-01	1.94E-01

Sample ID: 461990 **Sample Dates: 10/30/2017 - 11/6/2017**

Nuclide	Activity	2 Sigma Error	MDA
I-131	<2.17E-02	0.00E+00	2.17E-02
Cs-134	<1.85E-02	0.00E+00	1.85E-02
Cs-137	<1.14E-02	0.00E+00	1.14E-02
Be-7	<1.23E-01	0.00E+00	1.23E-01
K-40	4.83E-01	2.04E-01	2.40E-01

Sample ID: 462622 **Sample Dates: 11/6/2017 - 11/13/2017**

Nuclide	Activity	2 Sigma Error	MDA
I-131	<2.03E-02	0.00E+00	2.03E-02
Cs-134	<1.76E-02	0.00E+00	1.76E-02
Cs-137	<1.44E-02	0.00E+00	1.44E-02
Be-7	<1.28E-01	0.00E+00	1.28E-01
K-40	3.78E-01	1.87E-01	2.33E-01

Sample ID: 463118 **Sample Dates: 11/13/2017 - 11/20/2017**

Nuclide	Activity	2 Sigma Error	MDA
I-131	<2.29E-02	0.00E+00	2.29E-02
Cs-134	<1.74E-02	0.00E+00	1.74E-02
Cs-137	<1.54E-02	0.00E+00	1.54E-02
Be-7	<1.18E-01	0.00E+00	1.18E-01
K-40	4.67E-01	1.79E-01	1.71E-01

Sample ID: 463529 **Sample Dates: 11/20/2017 - 11/27/2017**

Nuclide	Activity	2 Sigma Error	MDA
I-131	<1.94E-02	0.00E+00	1.94E-02
Cs-134	<1.51E-02	0.00E+00	1.51E-02
Cs-137	<1.73E-02	0.00E+00	1.73E-02
Be-7	<1.00E-01	0.00E+00	1.00E-01
K-40	4.97E-01	1.99E-01	2.21E-01

Sample ID: 464169 **Sample Dates: 11/27/2017 - 12/4/2017**

Nuclide	Activity	2 Sigma Error	MDA
I-131	<2.27E-02	0.00E+00	2.27E-02
Cs-134	<2.07E-02	0.00E+00	2.07E-02
Cs-137	<2.10E-02	0.00E+00	2.10E-02
Be-7	<1.10E-01	0.00E+00	1.10E-01
K-40	3.79E-01	1.72E-01	1.94E-01

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

Sample Point 133 [INDICATOR - ENE @ 6.23 miles]

Sample ID: 464719 **Sample Dates: 12/4/2017 - 12/11/2017**

Nuclide	Activity	2 Sigma Error	MDA
I-131	<1.89E-02	0.00E+00	1.89E-02
Cs-134	<1.68E-02	0.00E+00	1.68E-02
Cs-137	<1.81E-02	0.00E+00	1.81E-02
Be-7	<1.26E-01	0.00E+00	1.26E-01
K-40	5.51E-01	2.15E-01	2.42E-01

Sample ID: 464992 **Sample Dates: 12/11/2017 - 12/18/2017**

Nuclide	Activity	2 Sigma Error	MDA
I-131	<2.10E-02	0.00E+00	2.10E-02
Cs-134	<2.25E-02	0.00E+00	2.25E-02
Cs-137	<1.74E-02	0.00E+00	1.74E-02
Be-7	<1.12E-01	0.00E+00	1.12E-01
K-40	3.47E-01	1.78E-01	2.22E-01

Sample ID: 465229 **Sample Dates: 12/18/2017 - 12/26/2017**

Nuclide	Activity	2 Sigma Error	MDA
I-131	<2.25E-02	0.00E+00	2.25E-02
Cs-134	<1.84E-02	0.00E+00	1.84E-02
Cs-137	<1.64E-02	0.00E+00	1.64E-02
Be-7	<1.25E-01	0.00E+00	1.25E-01
K-40	4.90E-01	1.75E-01	1.68E-01

Sample ID: 465643 **Sample Dates: 12/26/2017 - 1/2/2018**

Nuclide	Activity	2 Sigma Error	MDA
I-131	<2.65E-02	0.00E+00	2.65E-02
Cs-134	<1.64E-02	0.00E+00	1.64E-02
Cs-137	<1.76E-02	0.00E+00	1.76E-02
Be-7	<1.32E-01	0.00E+00	1.32E-01
K-40	5.13E-01	1.91E-01	1.89E-01

Sample Point 195 [INDICATOR - N @ 0.19 miles]

Sample ID: 431831 **Sample Dates: 12/27/2016 - 1/3/2017**

Nuclide	Activity	2 Sigma Error	MDA
I-131	<5.69E-03	0.00E+00	5.69E-03
Cs-134	<7.40E-03	0.00E+00	7.40E-03
Cs-137	<7.60E-03	0.00E+00	7.60E-03
Be-7	<5.61E-02	0.00E+00	5.61E-02
K-40	2.50E-01	1.32E-01	1.65E-01

Sample ID: 432231 **Sample Dates: 1/3/2017 - 1/9/2017**

Nuclide	Activity	2 Sigma Error	MDA
I-131	<7.57E-03	0.00E+00	7.57E-03
Cs-134	<6.43E-03	0.00E+00	6.43E-03
Cs-137	<8.93E-03	0.00E+00	8.93E-03
Be-7	<7.07E-02	0.00E+00	7.07E-02
K-40	4.01E-01	1.46E-01	3.39E-02

Sample ID: 432932 **Sample Dates: 1/9/2017 - 1/16/2017**

Nuclide	Activity	2 Sigma Error	MDA
I-131	<7.38E-03	0.00E+00	7.38E-03
Cs-134	<6.61E-03	0.00E+00	6.61E-03
Cs-137	<8.23E-03	0.00E+00	8.23E-03
Be-7	<5.96E-02	0.00E+00	5.96E-02
K-40	3.81E-01	1.31E-01	2.87E-02

Sample ID: 433329 **Sample Dates: 1/16/2017 - 1/23/2017**

Nuclide	Activity	2 Sigma Error	MDA
I-131	<8.25E-03	0.00E+00	8.25E-03
Cs-134	<6.54E-03	0.00E+00	6.54E-03
Cs-137	<5.77E-03	0.00E+00	5.77E-03
Be-7	<5.54E-02	0.00E+00	5.54E-02
K-40	<2.57E-01	0.00E+00	2.57E-01

Sample ID: 433747 **Sample Dates: 1/23/2017 - 1/30/2017**

Nuclide	Activity	2 Sigma Error	MDA
I-131	<7.58E-03	0.00E+00	7.58E-03
Cs-134	<7.31E-03	0.00E+00	7.31E-03
Cs-137	<7.74E-03	0.00E+00	7.74E-03
Be-7	<5.83E-02	0.00E+00	5.83E-02
K-40	3.72E-01	1.53E-01	1.59E-01

Sample ID: 434485 **Sample Dates: 1/30/2017 - 2/6/2017**

Nuclide	Activity	2 Sigma Error	MDA
I-131	<8.49E-03	0.00E+00	8.49E-03
Cs-134	<7.26E-03	0.00E+00	7.26E-03
Cs-137	<8.41E-03	0.00E+00	8.41E-03
Be-7	<6.09E-02	0.00E+00	6.09E-02
K-40	5.19E-01	1.56E-01	2.93E-02

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

Sample Point 195 [INDICATOR - N @ 0.19 miles]

Sample ID: 435128 **Sample Dates: 2/6/2017 - 2/13/2017**

Nuclide	Activity	2 Sigma Error	MDA
I-131	<6.94E-03	0.00E+00	6.94E-03
Cs-134	<5.45E-03	0.00E+00	5.45E-03
Cs-137	<1.05E-02	0.00E+00	1.05E-02
Be-7	<5.98E-02	0.00E+00	5.98E-02
K-40	<2.27E-01	0.00E+00	2.27E-01

Sample ID: 435835 **Sample Dates: 2/13/2017 - 2/20/2017**

Nuclide	Activity	2 Sigma Error	MDA
I-131	<7.36E-03	0.00E+00	7.36E-03
Cs-134	<9.09E-03	0.00E+00	9.09E-03
Cs-137	<5.80E-03	0.00E+00	5.80E-03
Be-7	<5.17E-02	0.00E+00	5.17E-02
K-40	<1.38E-01	0.00E+00	1.38E-01

Sample ID: 436286 **Sample Dates: 2/20/2017 - 2/27/2017**

Nuclide	Activity	2 Sigma Error	MDA
I-131	<8.04E-03	0.00E+00	8.04E-03
Cs-134	<5.22E-03	0.00E+00	5.22E-03
Cs-137	<9.05E-03	0.00E+00	9.05E-03
Be-7	<7.74E-02	0.00E+00	7.74E-02
K-40	<2.17E-01	0.00E+00	2.17E-01

Sample ID: 436740 **Sample Dates: 2/27/2017 - 3/6/2017**

Nuclide	Activity	2 Sigma Error	MDA
I-131	<6.38E-03	0.00E+00	6.38E-03
Cs-134	<8.11E-03	0.00E+00	8.11E-03
Cs-137	<9.56E-03	0.00E+00	9.56E-03
Be-7	<5.68E-02	0.00E+00	5.67E-02
K-40	<2.29E-01	0.00E+00	2.29E-01

Sample ID: 437603 **Sample Dates: 3/6/2017 - 3/13/2017**

Nuclide	Activity	2 Sigma Error	MDA
I-131	<5.64E-03	0.00E+00	5.64E-03
Cs-134	<7.97E-03	0.00E+00	7.97E-03
Cs-137	<9.39E-03	0.00E+00	9.39E-03
Be-7	<6.27E-02	0.00E+00	6.27E-02
K-40	<2.43E-01	0.00E+00	2.43E-01

Sample ID: 438327 **Sample Dates: 3/13/2017 - 3/20/2017**

Nuclide	Activity	2 Sigma Error	MDA
I-131	<6.66E-03	0.00E+00	6.66E-03
Cs-134	<8.65E-03	0.00E+00	8.65E-03
Cs-137	<1.07E-02	0.00E+00	1.07E-02
Be-7	<5.24E-02	0.00E+00	5.24E-02
K-40	<2.63E-01	0.00E+00	2.63E-01

Sample ID: 438831 **Sample Dates: 3/20/2017 - 3/27/2017**

Nuclide	Activity	2 Sigma Error	MDA
I-131	<7.54E-03	0.00E+00	7.54E-03
Cs-134	<6.36E-03	0.00E+00	6.36E-03
Cs-137	<1.14E-02	0.00E+00	1.14E-02
Be-7	<6.11E-02	0.00E+00	6.11E-02
K-40	<1.70E-01	0.00E+00	1.70E-01

Sample ID: 439205 **Sample Dates: 3/27/2017 - 4/3/2017**

Nuclide	Activity	2 Sigma Error	MDA
I-131	<7.91E-03	0.00E+00	7.91E-03
Cs-134	<5.47E-03	0.00E+00	5.47E-03
Cs-137	<6.80E-03	0.00E+00	6.80E-03
Be-7	<4.84E-02	0.00E+00	4.84E-02
K-40	<2.08E-01	0.00E+00	2.08E-01

Sample ID: 440030 **Sample Dates: 4/3/2017 - 4/10/2017**

Nuclide	Activity	2 Sigma Error	MDA
I-131	<1.02E-02	0.00E+00	1.02E-02
Cs-134	<9.69E-03	0.00E+00	9.69E-03
Cs-137	<9.06E-03	0.00E+00	9.06E-03
Be-7	<5.29E-02	0.00E+00	5.29E-02
K-40	2.84E-01	1.45E-01	1.70E-01

Sample ID: 440624 **Sample Dates: 4/10/2017 - 4/17/2017**

Nuclide	Activity	2 Sigma Error	MDA
I-131	<6.91E-03	0.00E+00	6.91E-03
Cs-134	<7.34E-03	0.00E+00	7.34E-03
Cs-137	<4.47E-03	0.00E+00	4.47E-03
Be-7	<5.49E-02	0.00E+00	5.49E-02
K-40	3.87E-01	1.32E-01	2.83E-02

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

Sample Point 195 [INDICATOR - N @ 0.19 miles]

Sample ID: 441439 **Sample Dates: 4/17/2017 - 4/24/2017**

Nuclide	Activity	2 Sigma Error	MDA
I-131	<7.58E-03	0.00E+00	7.58E-03
Cs-134	<8.66E-03	0.00E+00	8.66E-03
Cs-137	<1.03E-02	0.00E+00	1.03E-02
Be-7	<6.90E-02	0.00E+00	6.90E-02
K-40	3.03E-01	1.62E-01	2.13E-01

Sample ID: 441886 **Sample Dates: 4/24/2017 - 5/1/2017**

Nuclide	Activity	2 Sigma Error	MDA
I-131	<8.57E-03	0.00E+00	8.57E-03
Cs-134	<6.56E-03	0.00E+00	6.56E-03
Cs-137	<8.16E-03	0.00E+00	8.16E-03
Be-7	<6.08E-02	0.00E+00	6.08E-02
K-40	5.00E-01	1.79E-01	1.72E-01

Sample ID: 442336 **Sample Dates: 5/1/2017 - 5/8/2017**

Nuclide	Activity	2 Sigma Error	MDA
I-131	<8.35E-03	0.00E+00	8.35E-03
Cs-134	<7.56E-03	0.00E+00	7.56E-03
Cs-137	<6.75E-03	0.00E+00	6.75E-03
Be-7	<2.92E-02	0.00E+00	2.92E-02
K-40	4.85E-01	1.59E-01	1.19E-01

Sample ID: 442893 **Sample Dates: 5/8/2017 - 5/15/2017**

Nuclide	Activity	2 Sigma Error	MDA
I-131	<8.74E-03	0.00E+00	8.74E-03
Cs-134	<6.76E-03	0.00E+00	6.76E-03
Cs-137	<5.53E-03	0.00E+00	5.53E-03
Be-7	<6.12E-02	0.00E+00	6.12E-02
K-40	3.67E-01	1.27E-01	2.76E-02

Sample ID: 443332 **Sample Dates: 5/15/2017 - 5/22/2017**

Nuclide	Activity	2 Sigma Error	MDA
I-131	<8.25E-03	0.00E+00	8.25E-03
Cs-134	<6.50E-03	0.00E+00	6.50E-03
Cs-137	<7.41E-03	0.00E+00	7.41E-03
Be-7	<4.73E-02	0.00E+00	4.73E-02
K-40	6.21E-01	1.71E-01	2.85E-02

Sample ID: 443882 **Sample Dates: 5/22/2017 - 5/30/2017**

Nuclide	Activity	2 Sigma Error	MDA
I-131	<8.03E-03	0.00E+00	8.03E-03
Cs-134	<6.93E-03	0.00E+00	6.93E-03
Cs-137	<7.33E-03	0.00E+00	7.33E-03
Be-7	<4.25E-02	0.00E+00	4.25E-02
K-40	<2.31E-01	0.00E+00	2.31E-01

Sample ID: 444291 **Sample Dates: 5/30/2017 - 6/5/2017**

Nuclide	Activity	2 Sigma Error	MDA
I-131	<6.63E-03	0.00E+00	6.63E-03
Cs-134	<6.24E-03	0.00E+00	6.24E-03
Cs-137	<1.14E-02	0.00E+00	1.14E-02
Be-7	<6.87E-02	0.00E+00	6.87E-02
K-40	<2.80E-01	0.00E+00	2.80E-01

Sample ID: 445349 **Sample Dates: 6/5/2017 - 6/12/2017**

Nuclide	Activity	2 Sigma Error	MDA
I-131	<5.22E-03	0.00E+00	5.22E-03
Cs-134	<4.99E-03	0.00E+00	4.99E-03
Cs-137	<1.06E-02	0.00E+00	1.06E-02
Be-7	<3.12E-02	0.00E+00	3.12E-02
K-40	<2.19E-01	0.00E+00	2.19E-01

Sample ID: 446353 **Sample Dates: 6/12/2017 - 6/19/2017**

Nuclide	Activity	2 Sigma Error	MDA
I-131	<9.31E-03	0.00E+00	9.31E-03
Cs-134	<6.84E-03	0.00E+00	6.84E-03
Cs-137	<7.92E-03	0.00E+00	7.92E-03
Be-7	<5.43E-02	0.00E+00	5.43E-02
K-40	<1.99E-01	0.00E+00	1.99E-01

Sample ID: 446849 **Sample Dates: 6/19/2017 - 6/26/2017**

Nuclide	Activity	2 Sigma Error	MDA
I-131	<8.90E-03	0.00E+00	8.90E-03
Cs-134	<4.78E-03	0.00E+00	4.78E-03
Cs-137	<1.16E-02	0.00E+00	1.16E-02
Be-7	<4.87E-02	0.00E+00	4.87E-02
K-40	9.73E-02	6.54E-02	2.93E-02

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

Sample Point 195 [INDICATOR - N @ 0.19 miles]

Sample ID: 447219 **Sample Dates: 6/26/2017 - 7/3/2017**

Nuclide	Activity	2 Sigma Error	MDA
I-131	<7.21E-03	0.00E+00	7.21E-03
Cs-134	<9.54E-03	0.00E+00	9.54E-03
Cs-137	<8.16E-03	0.00E+00	8.16E-03
Be-7	<6.65E-02	0.00E+00	6.65E-02
K-40	2.87E-01	1.17E-01	3.11E-02

Sample ID: 447831 **Sample Dates: 7/3/2017 - 7/10/2017**

Nuclide	Activity	2 Sigma Error	MDA
I-131	<8.27E-03	0.00E+00	8.27E-03
Cs-134	<5.38E-03	0.00E+00	5.38E-03
Cs-137	<9.34E-03	0.00E+00	9.34E-03
Be-7	<4.73E-02	0.00E+00	4.73E-02
K-40	1.51E-01	9.15E-02	9.99E-02

Sample ID: 448303 **Sample Dates: 7/10/2017 - 7/17/2017**

Nuclide	Activity	2 Sigma Error	MDA
I-131	<5.74E-03	0.00E+00	5.74E-03
Cs-134	<6.34E-03	0.00E+00	6.34E-03
Cs-137	<1.00E-02	0.00E+00	1.00E-02
Be-7	<6.40E-02	0.00E+00	6.40E-02
K-40	1.65E-01	9.43E-02	1.01E-01

Sample ID: 448917 **Sample Dates: 7/17/2017 - 7/24/2017**

Nuclide	Activity	2 Sigma Error	MDA
I-131	<5.93E-03	0.00E+00	5.93E-03
Cs-134	<5.67E-03	0.00E+00	5.67E-03
Cs-137	<5.83E-03	0.00E+00	5.83E-03
Be-7	<4.48E-02	0.00E+00	4.48E-02
K-40	2.05E-01	8.97E-02	1.05E-01

Sample ID: 449248 **Sample Dates: 7/24/2017 - 7/31/2017**

Nuclide	Activity	2 Sigma Error	MDA
I-131	<6.84E-03	0.00E+00	6.84E-03
Cs-134	<6.58E-03	0.00E+00	6.58E-03
Cs-137	<9.39E-03	0.00E+00	9.39E-03
Be-7	<5.57E-02	0.00E+00	5.57E-02
K-40	1.69E-01	9.95E-02	1.12E-01

Sample ID: 449969 **Sample Dates: 7/31/2017 - 8/7/2017**

Nuclide	Activity	2 Sigma Error	MDA
I-131	<9.04E-03	0.00E+00	9.04E-03
Cs-134	<6.49E-03	0.00E+00	6.49E-03
Cs-137	<5.72E-03	0.00E+00	5.72E-03
Be-7	<5.50E-02	0.00E+00	5.50E-02
K-40	1.97E-01	9.20E-02	2.81E-02

Sample ID: 450230 **Sample Dates: 8/7/2017 - 8/14/2017**

Nuclide	Activity	2 Sigma Error	MDA
I-131	<6.87E-03	0.00E+00	6.87E-03
Cs-134	<7.42E-03	0.00E+00	7.42E-03
Cs-137	<9.80E-03	0.00E+00	9.80E-03
Be-7	<5.10E-02	0.00E+00	5.10E-02
K-40	<2.08E-01	0.00E+00	2.08E-01

Sample ID: 450750 **Sample Dates: 8/14/2017 - 8/21/2017**

Nuclide	Activity	2 Sigma Error	MDA
I-131	<6.36E-03	0.00E+00	6.36E-03
Cs-134	<6.85E-03	0.00E+00	6.85E-03
Cs-137	<7.63E-03	0.00E+00	7.63E-03
Be-7	<4.85E-02	0.00E+00	4.85E-02
K-40	<2.00E-01	0.00E+00	2.00E-01

Sample ID: 451216 **Sample Dates: 8/21/2017 - 8/28/2017**

Nuclide	Activity	2 Sigma Error	MDA
I-131	<5.60E-03	0.00E+00	5.60E-03
Cs-134	<6.02E-03	0.00E+00	6.02E-03
Cs-137	<5.79E-03	0.00E+00	5.79E-03
Be-7	<5.17E-02	0.00E+00	5.17E-02
K-40	<2.58E-01	0.00E+00	2.58E-01

Sample ID: 451560 **Sample Dates: 8/28/2017 - 9/5/2017**

Nuclide	Activity	2 Sigma Error	MDA
I-131	<6.69E-03	0.00E+00	6.69E-03
Cs-134	<8.05E-03	0.00E+00	8.05E-03
Cs-137	<8.42E-03	0.00E+00	8.42E-03
Be-7	<5.18E-02	0.00E+00	5.18E-02
K-40	8.50E-02	8.06E-02	1.20E-01

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

Sample Point 195 [INDICATOR - N @ 0.19 miles]

Sample ID: 452383 **Sample Dates: 9/5/2017 - 9/11/2017**

Nuclide	Activity	2 Sigma Error	MDA
I-131	<9.95E-03	0.00E+00	9.95E-03
Cs-134	<8.70E-03	0.00E+00	8.70E-03
Cs-137	<1.39E-02	0.00E+00	1.39E-02
Be-7	<6.91E-02	0.00E+00	6.91E-02
K-40	1.94E-01	1.01E-01	3.50E-02

Sample ID: 452810 **Sample Dates: 9/11/2017 - 9/18/2017**

Nuclide	Activity	2 Sigma Error	MDA
I-131	<8.85E-03	0.00E+00	8.85E-03
Cs-134	<7.93E-03	0.00E+00	7.93E-03
Cs-137	<1.05E-02	0.00E+00	1.05E-02
Be-7	<4.13E-02	0.00E+00	4.13E-02
K-40	2.13E-01	1.16E-01	1.25E-01

Sample ID: 453471 **Sample Dates: 9/18/2017 - 9/25/2017**

Nuclide	Activity	2 Sigma Error	MDA
I-131	<8.12E-03	0.00E+00	8.12E-03
Cs-134	<8.11E-03	0.00E+00	8.11E-03
Cs-137	<9.56E-03	0.00E+00	9.56E-03
Be-7	<5.29E-02	0.00E+00	5.29E-02
K-40	2.71E-01	1.36E-01	1.59E-01

Sample ID: 454241 **Sample Dates: 9/25/2017 - 10/2/2017**

Nuclide	Activity	2 Sigma Error	MDA
I-131	<1.68E-02	0.00E+00	1.68E-02
Cs-134	<1.61E-02	0.00E+00	1.61E-02
Cs-137	<1.55E-02	0.00E+00	1.55E-02
Be-7	<1.06E-01	0.00E+00	1.06E-01
K-40	2.91E-01	1.30E-01	1.15E-01

Sample ID: 455098 **Sample Dates: 10/2/2017 - 10/9/2017**

Nuclide	Activity	2 Sigma Error	MDA
I-131	<1.57E-02	0.00E+00	1.57E-02
Cs-134	<1.63E-02	0.00E+00	1.63E-02
Cs-137	<1.22E-02	0.00E+00	1.22E-02
Be-7	<8.54E-02	0.00E+00	8.54E-02
K-40	1.92E-01	1.34E-01	1.86E-01

Sample ID: 455437 **Sample Dates: 10/9/2017 - 10/16/2017**

Nuclide	Activity	2 Sigma Error	MDA
I-131	<1.56E-02	0.00E+00	1.56E-02
Cs-134	<1.35E-02	0.00E+00	1.35E-02
Cs-137	<1.38E-02	0.00E+00	1.38E-02
Be-7	<1.07E-01	0.00E+00	1.07E-01
K-40	2.76E-01	1.32E-01	1.27E-01

Sample ID: 456069 **Sample Dates: 10/16/2017 - 10/23/2017**

Nuclide	Activity	2 Sigma Error	MDA
I-131	<1.20E-02	0.00E+00	1.20E-02
Cs-134	<1.22E-02	0.00E+00	1.22E-02
Cs-137	<1.40E-02	0.00E+00	1.40E-02
Be-7	<1.10E-01	0.00E+00	1.10E-01
K-40	2.46E-01	1.35E-01	1.61E-01

Sample ID: 461436 **Sample Dates: 10/23/2017 - 10/30/2017**

Nuclide	Activity	2 Sigma Error	MDA
I-131	<2.09E-02	0.00E+00	2.09E-02
Cs-134	<2.15E-02	0.00E+00	2.15E-02
Cs-137	<1.83E-02	0.00E+00	1.83E-02
Be-7	<1.21E-01	0.00E+00	1.21E-01
K-40	5.82E-01	2.07E-01	2.06E-01

Sample ID: 461991 **Sample Dates: 10/30/2017 - 11/6/2017**

Nuclide	Activity	2 Sigma Error	MDA
I-131	<1.96E-02	0.00E+00	1.96E-02
Cs-134	<1.11E-02	0.00E+00	1.11E-02
Cs-137	<1.64E-02	0.00E+00	1.64E-02
Be-7	<1.09E-01	0.00E+00	1.09E-01
K-40	3.93E-01	1.55E-01	1.32E-01

Sample ID: 462623 **Sample Dates: 11/6/2017 - 11/13/2017**

Nuclide	Activity	2 Sigma Error	MDA
I-131	<1.86E-02	0.00E+00	1.86E-02
Cs-134	<1.65E-02	0.00E+00	1.65E-02
Cs-137	<1.70E-02	0.00E+00	1.70E-02
Be-7	<1.39E-01	0.00E+00	1.39E-01
K-40	6.35E-01	2.14E-01	1.98E-01

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

Sample Point 195 [INDICATOR - N @ 0.19 miles]

Sample ID: 463119 **Sample Dates: 11/13/2017 - 11/20/2017**

Nuclide	Activity	2 Sigma Error	MDA
I-131	<2.39E-02	0.00E+00	2.39E-02
Cs-134	<2.20E-02	0.00E+00	2.20E-02
Cs-137	<1.59E-02	0.00E+00	1.59E-02
Be-7	<1.02E-01	0.00E+00	1.02E-01
K-40	5.25E-01	1.93E-01	1.88E-01

Sample ID: 463530 **Sample Dates: 11/20/2017 - 11/27/2017**

Nuclide	Activity	2 Sigma Error	MDA
I-131	<1.79E-02	0.00E+00	1.79E-02
Cs-134	<2.03E-02	0.00E+00	2.03E-02
Cs-137	<1.47E-02	0.00E+00	1.47E-02
Be-7	<1.17E-01	0.00E+00	1.17E-01
K-40	4.30E-01	1.91E-01	2.25E-01

Sample ID: 464170 **Sample Dates: 11/27/2017 - 12/4/2017**

Nuclide	Activity	2 Sigma Error	MDA
I-131	<2.39E-02	0.00E+00	2.39E-02
Cs-134	<2.14E-02	0.00E+00	2.14E-02
Cs-137	<1.65E-02	0.00E+00	1.65E-02
Be-7	<1.17E-01	0.00E+00	1.17E-01
K-40	5.02E-01	1.72E-01	1.25E-01

Sample ID: 464720 **Sample Dates: 12/4/2017 - 12/11/2017**

Nuclide	Activity	2 Sigma Error	MDA
I-131	<2.05E-02	0.00E+00	2.05E-02
Cs-134	<1.98E-02	0.00E+00	1.98E-02
Cs-137	<1.69E-02	0.00E+00	1.69E-02
Be-7	<1.29E-01	0.00E+00	1.29E-01
K-40	5.37E-01	2.28E-01	2.79E-01

Sample ID: 464993 **Sample Dates: 12/11/2017 - 12/18/2017**

Nuclide	Activity	2 Sigma Error	MDA
I-131	<1.67E-02	0.00E+00	1.67E-02
Cs-134	<1.67E-02	0.00E+00	1.67E-02
Cs-137	<1.92E-02	0.00E+00	1.92E-02
Be-7	<1.18E-01	0.00E+00	1.18E-01
K-40	5.29E-01	2.09E-01	2.35E-01

Sample ID: 465230 **Sample Dates: 12/18/2017 - 12/26/2017**

Nuclide	Activity	2 Sigma Error	MDA
I-131	<2.07E-02	0.00E+00	2.07E-02
Cs-134	<1.52E-02	0.00E+00	1.52E-02
Cs-137	<1.52E-02	0.00E+00	1.52E-02
Be-7	<9.06E-02	0.00E+00	9.06E-02
K-40	3.18E-01	1.73E-01	2.31E-01

Sample ID: 465644 **Sample Dates: 12/26/2017 - 1/2/2018**

Nuclide	Activity	2 Sigma Error	MDA
I-131	<2.23E-02	0.00E+00	2.23E-02
Cs-134	<1.21E-02	0.00E+00	1.21E-02
Cs-137	<1.37E-02	0.00E+00	1.37E-02
Be-7	<1.18E-01	0.00E+00	1.18E-01
K-40	3.62E-01	1.70E-01	2.00E-01

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

Sample Point 104 [INDICATOR - NNW @ 1.52 miles]

Sample ID: 447836 **Sample Dates: 7/3/2017 - 7/3/2017** **MIXEDCROPS**

Nuclide	Activity	2 Sigma Error	MDA
I-131	<9.17E+00	0.00E+00	9.17E+00
Cs-134	<1.08E+01	0.00E+00	1.08E+01
Cs-137	<1.04E+01	0.00E+00	1.04E+01
Be-7	<8.58E+01	0.00E+00	8.58E+01
K-40	2.06E+03	3.08E+02	1.46E+02

Sample ID: 450235 **Sample Dates: 8/7/2017 - 8/7/2017** **MIXEDCROPS**

Nuclide	Activity	2 Sigma Error	MDA
I-131	<7.12E+00	0.00E+00	7.12E+00
Cs-134	<7.34E+00	0.00E+00	7.34E+00
Cs-137	<9.14E+00	0.00E+00	9.14E+00
Be-7	<6.28E+01	0.00E+00	6.28E+01
K-40	2.44E+03	3.18E+02	1.78E+01

Sample ID: 452388 **Sample Dates: 9/5/2017 - 9/5/2017** **MIXEDCROPS**

Nuclide	Activity	2 Sigma Error	MDA
I-131	<1.71E+01	0.00E+00	1.71E+01
Cs-134	<2.38E+01	0.00E+00	2.38E+01
Cs-137	<2.05E+01	0.00E+00	2.05E+01
Be-7	<2.10E+02	0.00E+00	2.10E+02

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

Sample Point 104 [INDICATOR - NNW @ 1.52 miles]

Sample ID:	452388	Sample Dates: 9/5/2017 - 9/5/2017	MIXEDCROPS	Nuclide	Activity	2 Sigma Error	MDA
				K-40	3.48E+03	5.85E+02	3.22E+02
Sample ID:	**455103**	**Sample Dates: 10/2/2017 - 10/2/2017**	**MIXEDCROPS**	**Nuclide**	**Activity**	**2 Sigma Error**	**MDA**
				I-131	<7.97E+00	0.00E+00	7.97E+00
				Cs-134	<1.13E+01	0.00E+00	1.13E+01
				Cs-137	<1.19E+01	0.00E+00	1.19E+01
				Be-7	<7.67E+01	0.00E+00	7.67E+01
				K-40	2.49E+03	3.56E+02	9.67E+01
Sample ID:	**462628**	**Sample Dates: 11/6/2017 - 11/6/2017**	**MIXEDCROPS**	**Nuclide**	**Activity**	**2 Sigma Error**	**MDA**
				I-131	<1.26E+01	0.00E+00	1.26E+01
				Cs-134	<1.42E+01	0.00E+00	1.42E+01
				Cs-137	<1.29E+01	0.00E+00	1.29E+01
				Be-7	<9.20E+01	0.00E+00	9.20E+01
				K-40	2.47E+03	3.94E+02	1.66E+02
Sample ID:	**464725**	**Sample Dates: 12/4/2017 - 12/4/2017**	**MIXEDCROPS**	**Nuclide**	**Activity**	**2 Sigma Error**	**MDA**
				I-131	<2.55E+01	0.00E+00	2.55E+01
				Cs-134	<2.91E+01	0.00E+00	2.91E+01
				Cs-137	<3.15E+01	0.00E+00	3.15E+01
				Be-7	<2.35E+02	0.00E+00	2.35E+02
				K-40	3.26E+03	6.86E+02	4.93E+02

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

Sample Point 101 [INDICATOR - E @ 3.31 miles]

Sample ID:	431603	Sample Dates: 12/5/2016 - 1/3/2017	Nuclide	Activity	2 Sigma Error	MDA
			Beta	1.24E+00	8.69E-01	1.42E+00
			Mn-54	<2.86E+00	0.00E+00	2.86E+00
			Co-58	<3.34E+00	0.00E+00	3.34E+00
			Fe-59	<7.33E+00	0.00E+00	7.33E+00
			Co-60	<1.67E+00	0.00E+00	1.67E+00
			Zn-65	<6.45E+00	0.00E+00	6.45E+00
			Zr-95	<5.30E+00	0.00E+00	5.30E+00
			Nb-95	<4.25E+00	0.00E+00	4.25E+00
			I-131	<1.12E+01	0.00E+00	1.12E+01
			Cs-134	<3.34E+00	0.00E+00	3.34E+00
			Cs-137	<3.19E+00	0.00E+00	3.19E+00
			BaLa-140	<5.87E+00	0.00E+00	5.87E+00
			Be-7	<2.76E+01	0.00E+00	2.76E+01
			K-40	8.29E+01	3.86E+01	5.31E+01
Sample ID:	**433489**	**Sample Dates: 1/3/2017 - 1/30/2017**	**Nuclide**	**Activity**	**2 Sigma Error**	**MDA**
			Beta	1.88E+00	7.53E-01	1.16E+00
			Mn-54	<3.75E+00	0.00E+00	3.75E+00
			Co-58	<4.98E+00	0.00E+00	4.98E+00
			Fe-59	<9.72E+00	0.00E+00	9.72E+00
			Co-60	<4.01E+00	0.00E+00	4.01E+00
			Zn-65	<9.73E+00	0.00E+00	9.73E+00
			Zr-95	<5.97E+00	0.00E+00	5.97E+00
			Nb-95	<5.31E+00	0.00E+00	5.31E+00
			I-131	<1.17E+01	0.00E+00	1.17E+01
			Cs-134	<5.04E+00	0.00E+00	5.04E+00
			Cs-137	<4.41E+00	0.00E+00	4.41E+00
			BaLa-140	<6.32E+00	0.00E+00	6.32E+00
			Be-7	<2.89E+01	0.00E+00	2.89E+01
			K-40	<6.65E+01	0.00E+00	6.65E+01
Sample ID:	**434737**	**Sample Dates: 12/5/2016 - 2/27/2017**	**Nuclide**	**Activity**	**2 Sigma Error**	**MDA**
			H3DW	8.15E+02	1.32E+02	1.89E+02
Sample ID:	**436094**	**Sample Dates: 1/30/2017 - 2/27/2017**	**Nuclide**	**Activity**	**2 Sigma Error**	**MDA**
			Beta	1.91E+00	8.84E-01	1.39E+00
			Mn-54	<2.43E+00	0.00E+00	2.43E+00
			Co-58	<2.42E+00	0.00E+00	2.42E+00
			Fe-59	<5.38E+00	0.00E+00	5.38E+00
			Co-60	<2.94E+00	0.00E+00	2.94E+00
			Zn-65	<5.40E+00	0.00E+00	5.40E+00
			Zr-95	<6.69E+00	0.00E+00	6.69E+00

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

Sample Point 101 [INDICATOR - E @ 3.31 miles]

Sample ID: 436094 **Sample Dates: 1/30/2017 - 2/27/2017**

Nuclide	Activity	2 Sigma Error	MDA
Nb-95	<3.48E+00	0.00E+00	3.48E+00
I-131	<1.02E+01	0.00E+00	1.02E+01
Cs-134	<3.25E+00	0.00E+00	3.25E+00
Cs-137	<2.93E+00	0.00E+00	2.93E+00
BaLa-140	<5.58E+00	0.00E+00	5.58E+00
Be-7	<2.47E+01	0.00E+00	2.47E+01
K-40	3.34E+01	2.29E+01	3.18E+01

Sample ID: 438662 **Sample Dates: 2/27/2017 - 3/27/2017**

Nuclide	Activity	2 Sigma Error	MDA
Beta	1.46E+00	8.73E-01	1.40E+00
Mn-54	<3.68E+00	0.00E+00	3.68E+00
Co-58	<2.69E+00	0.00E+00	2.69E+00
Fe-59	<6.39E+00	0.00E+00	6.39E+00
Co-60	<3.56E+00	0.00E+00	3.56E+00
Zn-65	<6.00E+00	0.00E+00	6.00E+00
Zr-95	<7.20E+00	0.00E+00	7.20E+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	<4.08E+00	0.00E+00	4.08E+00
Cs-137	<4.19E+00	0.00E+00	4.19E+00
BaLa-140	<7.86E+00	0.00E+00	7.86E+00
Be-7	<3.06E+01	0.00E+00	3.06E+01
K-40	<6.48E+01	0.00E+00	6.48E+01

Sample ID: 440793 **Sample Dates: 3/27/2017 - 4/24/2017**

Nuclide	Activity	2 Sigma Error	MDA
Beta	1.83E+00	8.93E-01	1.41E+00
Mn-54	<3.49E+00	0.00E+00	3.49E+00
Co-58	<4.55E+00	0.00E+00	4.55E+00
Fe-59	<9.13E+00	0.00E+00	9.13E+00
Co-60	<3.57E+00	0.00E+00	3.57E+00
Zn-65	<7.33E+00	0.00E+00	7.33E+00
Zr-95	<5.81E+00	0.00E+00	5.81E+00
Nb-95	<6.66E+00	0.00E+00	6.66E+00
I-131	<1.12E+01	0.00E+00	1.12E+01
Cs-134	<3.60E+00	0.00E+00	3.60E+00
Cs-137	<4.97E+00	0.00E+00	4.97E+00
BaLa-140	<8.14E+00	0.00E+00	8.14E+00
Be-7	<3.18E+01	0.00E+00	3.18E+01
K-40	<5.72E+01	0.00E+00	5.72E+01

Sample ID: 442342 **Sample Dates: 2/27/2017 - 5/22/2017**

Nuclide	Activity	2 Sigma Error	MDA
H3DW	1.97E+03	1.69E+02	1.98E+02

Sample ID: 443061 **Sample Dates: 4/24/2017 - 5/22/2017**

Nuclide	Activity	2 Sigma Error	MDA
Beta	1.18E+00	8.09E-01	1.32E+00
Mn-54	<3.72E+00	0.00E+00	3.72E+00
Co-58	<5.00E+00	0.00E+00	5.00E+00
Fe-59	<7.78E+00	0.00E+00	7.78E+00
Co-60	<5.22E+00	0.00E+00	5.22E+00
Zn-65	<8.29E+00	0.00E+00	8.29E+00
Zr-95	<6.21E+00	0.00E+00	6.21E+00
Nb-95	<4.66E+00	0.00E+00	4.66E+00
I-131	<1.20E+01	0.00E+00	1.20E+01
Cs-134	<4.66E+00	0.00E+00	4.66E+00
Cs-137	<3.76E+00	0.00E+00	3.76E+00
BaLa-140	<7.79E+00	0.00E+00	7.79E+00
Be-7	<3.83E+01	0.00E+00	3.83E+01
K-40	<6.83E+01	0.00E+00	6.83E+01

Sample ID: 445666 **Sample Dates: 5/22/2017 - 6/19/2017**

Nuclide	Activity	2 Sigma Error	MDA
Beta	1.15E+00	9.38E-01	1.55E+00
Mn-54	<3.29E+00	0.00E+00	3.29E+00
Co-58	<3.13E+00	0.00E+00	3.13E+00
Fe-59	<5.94E+00	0.00E+00	5.94E+00
Co-60	<3.32E+00	0.00E+00	3.32E+00
Zn-65	<5.59E+00	0.00E+00	5.59E+00
Zr-95	<4.84E+00	0.00E+00	4.84E+00
Nb-95	<4.04E+00	0.00E+00	4.04E+00

MCGUIRE Radiological Environmental Monitoring Analysis Report - 2017 (Appendix E)

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

Sample Point 101 [INDICATOR - E @ 3.31 miles]

Sample ID: 445666 Sample Dates: 5/22/2017 - 6/19/2017

Nuclide	Activity	2 Sigma Error	MDA
I-131	<1.14E+01	0.00E+00	1.14E+01
Cs-134	<4.35E+00	0.00E+00	4.35E+00
Cs-137	<3.19E+00	0.00E+00	3.19E+00
BaLa-140	<6.23E+00	0.00E+00	6.23E+00
Be-7	<2.75E+01	0.00E+00	2.75E+01
K-40	<5.21E+01	0.00E+00	5.21E+01

Sample ID: 447959 Sample Dates: 6/19/2017 - 7/17/2017

Nuclide	Activity	2 Sigma Error	MDA
Beta	1.05E+00	9.47E-01	1.57E+00
Mn-54	<3.76E+00	0.00E+00	3.76E+00
Co-58	<3.62E+00	0.00E+00	3.62E+00
Fe-59	<1.09E+01	0.00E+00	1.09E+01
Co-60	<4.01E+00	0.00E+00	4.01E+00
Zn-65	<6.61E+00	0.00E+00	6.61E+00
Zr-95	<6.42E+00	0.00E+00	6.42E+00
Nb-95	<5.36E+00	0.00E+00	5.36E+00
I-131	<1.18E+01	0.00E+00	1.18E+01
Cs-134	<4.17E+00	0.00E+00	4.17E+00
Cs-137	<3.65E+00	0.00E+00	3.65E+00
BaLa-140	<8.20E+00	0.00E+00	8.20E+00
Be-7	<3.65E+01	0.00E+00	3.65E+01
K-40	<4.96E+01	0.00E+00	4.96E+01

Sample ID: 450046 Sample Dates: 5/22/2017 - 8/14/2017

Nuclide	Activity	2 Sigma Error	MDA
H3DW	8.37E+02	1.34E+02	1.86E+02

Sample ID: 450088 Sample Dates: 7/17/2017 - 8/14/2017

Nuclide	Activity	2 Sigma Error	MDA
Beta	1.95E+00	7.86E-01	1.22E+00
Mn-54	<3.19E+00	0.00E+00	3.19E+00
Co-58	<3.33E+00	0.00E+00	3.33E+00
Fe-59	<6.74E+00	0.00E+00	6.74E+00
Co-60	<3.04E+00	0.00E+00	3.04E+00
Zn-65	<5.61E+00	0.00E+00	5.61E+00
Zr-95	<5.91E+00	0.00E+00	5.91E+00
Nb-95	<4.44E+00	0.00E+00	4.44E+00
I-131	<1.14E+01	0.00E+00	1.14E+01
Cs-134	<4.10E+00	0.00E+00	4.10E+00
Cs-137	<3.09E+00	0.00E+00	3.09E+00
BaLa-140	<5.84E+00	0.00E+00	5.84E+00
Be-7	<3.55E+01	0.00E+00	3.55E+01
K-40	<5.07E+01	0.00E+00	5.07E+01

Sample ID: 451821 Sample Dates: 8/14/2017 - 9/11/2017

Nuclide	Activity	2 Sigma Error	MDA
Beta	<-3.7E-01	0.00E+00	1.74E+00
Mn-54	<3.20E+00	0.00E+00	3.20E+00
Co-58	<3.83E+00	0.00E+00	3.83E+00
Fe-59	<8.74E+00	0.00E+00	8.74E+00
Co-60	<3.92E+00	0.00E+00	3.92E+00
Zn-65	<5.94E+00	0.00E+00	5.94E+00
Zr-95	<6.00E+00	0.00E+00	6.00E+00
Nb-95	<4.42E+00	0.00E+00	4.42E+00
I-131	<1.10E+01	0.00E+00	1.10E+01
Cs-134	<3.84E+00	0.00E+00	3.84E+00
Cs-137	<2.68E+00	0.00E+00	2.68E+00
BaLa-140	<7.92E+00	0.00E+00	7.92E+00
Be-7	<2.59E+01	0.00E+00	2.59E+01
K-40	2.28E+01	1.93E+01	2.67E+01

Sample ID: 454585 Sample Dates: 9/11/2017 - 10/9/2017

Nuclide	Activity	2 Sigma Error	MDA
Beta	1.09E+00	8.95E-01	1.48E+00
Mn-54	<4.79E+00	0.00E+00	4.79E+00
Co-58	<3.61E+00	0.00E+00	3.61E+00
Fe-59	<6.78E+00	0.00E+00	6.78E+00
Co-60	<4.16E+00	0.00E+00	4.16E+00
Zn-65	<7.23E+00	0.00E+00	7.23E+00
Zr-95	<8.63E+00	0.00E+00	8.63E+00
Nb-95	<3.86E+00	0.00E+00	3.86E+00
I-131	<1.18E+01	0.00E+00	1.18E+01

MCGUIRE Radiological Environmental Monitoring Analysis Report - 2017 (Appendix E)

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

Sample Point 101 [INDICATOR - E @ 3.31 miles]

Sample ID: 454585 Sample Dates: 9/11/2017 - 10/9/2017

Nuclide	Activity	2 Sigma Error	MDA
Cs-134	<3.61E+00	0.00E+00	3.61E+00
Cs-137	<3.29E+00	0.00E+00	3.29E+00
BaLa-140	<8.76E+00	0.00E+00	8.76E+00
Be-7	<3.05E+01	0.00E+00	3.05E+01
K-40	6.06E+01	3.06E+01	3.46E+01

Sample ID: 461746 Sample Dates: 10/9/2017 - 11/6/2017

Nuclide	Activity	2 Sigma Error	MDA
Beta	1.65E+00	8.62E-01	1.37E+00
Mn-54	<3.11E+00	0.00E+00	3.11E+00
Co-58	<4.22E+00	0.00E+00	4.22E+00
Fe-59	<7.26E+00	0.00E+00	7.26E+00
Co-60	<1.94E+00	0.00E+00	1.94E+00
Zn-65	<5.82E+00	0.00E+00	5.82E+00
Zr-95	<5.77E+00	0.00E+00	5.77E+00
Nb-95	<4.86E+00	0.00E+00	4.86E+00
I-131	<1.11E+01	0.00E+00	1.11E+01
Cs-134	<4.51E+00	0.00E+00	4.51E+00
Cs-137	<3.83E+00	0.00E+00	3.83E+00
BaLa-140	<9.27E+00	0.00E+00	9.27E+00
Be-7	<2.14E+01	0.00E+00	2.14E+01
K-40	3.26E+01	3.58E+01	5.74E+01

Sample ID: 462367 Sample Dates: 8/14/2017 - 12/4/2017

Nuclide	Activity	2 Sigma Error	MDA
H3DW	9.19E+02	1.38E+02	1.91E+02

Sample ID: 463802 Sample Dates: 11/6/2017 - 12/4/2017

Nuclide	Activity	2 Sigma Error	MDA
Beta	1.13E+00	9.31E-01	1.53E+00
Mn-54	<2.94E+00	0.00E+00	2.94E+00
Co-58	<2.24E+00	0.00E+00	2.24E+00
Fe-59	<6.31E+00	0.00E+00	6.31E+00
Co-60	<2.86E+00	0.00E+00	2.86E+00
Zn-65	<5.93E+00	0.00E+00	5.93E+00
Zr-95	<4.17E+00	0.00E+00	4.17E+00
Nb-95	<3.36E+00	0.00E+00	3.36E+00
I-131	<9.45E+00	0.00E+00	9.45E+00
Cs-134	<2.13E+00	0.00E+00	2.13E+00
Cs-137	<2.71E+00	0.00E+00	2.71E+00
BaLa-140	<5.51E+00	0.00E+00	5.51E+00
Be-7	<2.11E+01	0.00E+00	2.11E+01
K-40	2.95E+01	2.29E+01	3.40E+01

Sample ID: 465389 Sample Dates: 12/4/2017 - 1/2/2018

Nuclide	Activity	2 Sigma Error	MDA
Beta	1.87E+00	8.66E-01	1.35E+00
Mn-54	<4.04E+00	0.00E+00	4.04E+00
Co-58	<4.61E+00	0.00E+00	4.61E+00
Fe-59	<8.19E+00	0.00E+00	8.19E+00
Co-60	<3.91E+00	0.00E+00	3.91E+00
Zn-65	<7.58E+00	0.00E+00	7.58E+00
Zr-95	<7.10E+00	0.00E+00	7.10E+00
Nb-95	<4.95E+00	0.00E+00	4.95E+00
I-131	<1.17E+01	0.00E+00	1.17E+01
Cs-134	<4.23E+00	0.00E+00	4.23E+00
Cs-137	<3.69E+00	0.00E+00	3.69E+00
BaLa-140	<6.51E+00	0.00E+00	6.51E+00
Be-7	<3.47E+01	0.00E+00	3.47E+01
K-40	7.75E+01	4.01E+01	5.37E+01
H3DW	6.87E+02	1.25E+02	1.76E+02

Sample Point 119 [INDICATOR - SSW @ 7.4 miles]

Sample ID: 431604 Sample Dates: 12/5/2016 - 1/3/2017

Nuclide	Activity	2 Sigma Error	MDA
Beta	1.10E+00	8.55E-01	1.41E+00
Mn-54	<3.53E+00	0.00E+00	3.53E+00
Co-58	<2.55E+00	0.00E+00	2.55E+00
Fe-59	<8.06E+00	0.00E+00	8.06E+00
Co-60	<4.11E+00	0.00E+00	4.11E+00
Zn-65	<7.54E+00	0.00E+00	7.54E+00
Zr-95	<6.49E+00	0.00E+00	6.49E+00

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

Sample Point 119 [INDICATOR - SSW @ 7.4 miles]

Sample ID: 431604 **Sample Dates: 12/5/2016 - 1/3/2017**

Nuclide	Activity	2 Sigma Error	MDA
Nb-95	<4.64E+00	0.00E+00	4.64E+00
I-131	<1.19E+01	0.00E+00	1.19E+01
Cs-134	<2.74E+00	0.00E+00	2.74E+00
Cs-137	<2.40E+00	0.00E+00	2.40E+00
BaLa-140	<7.76E+00	0.00E+00	7.76E+00
Be-7	<2.90E+01	0.00E+00	2.90E+01
K-40	3.20E+01	3.51E+01	5.64E+01

Sample ID: 433490 **Sample Dates: 1/3/2017 - 1/30/2017**

Nuclide	Activity	2 Sigma Error	MDA
Beta	5.61E+00	9.16E-01	1.15E+00
Mn-54	<3.88E+00	0.00E+00	3.88E+00
Co-58	<4.59E+00	0.00E+00	4.59E+00
Fe-59	<7.85E+00	0.00E+00	7.85E+00
Co-60	<2.11E+00	0.00E+00	2.11E+00
Zn-65	<7.44E+00	0.00E+00	7.44E+00
Zr-95	<6.26E+00	0.00E+00	6.26E+00
Nb-95	<4.14E+00	0.00E+00	4.14E+00
I-131	<1.11E+01	0.00E+00	1.11E+01
Cs-134	<3.12E+00	0.00E+00	3.12E+00
Cs-137	<3.62E+00	0.00E+00	3.62E+00
BaLa-140	<2.01E+00	0.00E+00	2.01E+00
Be-7	<3.42E+01	0.00E+00	3.42E+01
K-40	<5.55E+01	0.00E+00	5.55E+01

Sample ID: 434738 **Sample Dates: 12/5/2016 - 2/27/2017**

Nuclide	Activity	2 Sigma Error	MDA
H3DW	4.60E+02	1.22E+02	1.89E+02

Sample ID: 436095 **Sample Dates: 1/30/2017 - 2/27/2017**

Nuclide	Activity	2 Sigma Error	MDA
Beta	1.88E+00	8.78E-01	1.38E+00
Mn-54	<2.97E+00	0.00E+00	2.97E+00
Co-58	<3.29E+00	0.00E+00	3.29E+00
Fe-59	<1.03E+01	0.00E+00	1.03E+01
Co-60	<3.98E+00	0.00E+00	3.98E+00
Zn-65	<8.00E+00	0.00E+00	8.00E+00
Zr-95	<6.83E+00	0.00E+00	6.83E+00
Nb-95	<4.84E+00	0.00E+00	4.84E+00
I-131	<1.18E+01	0.00E+00	1.18E+01
Cs-134	<4.58E+00	0.00E+00	4.58E+00
Cs-137	<4.00E+00	0.00E+00	4.00E+00
BaLa-140	<9.50E+00	0.00E+00	9.50E+00
Be-7	<3.73E+01	0.00E+00	3.73E+01
K-40	<6.80E+01	0.00E+00	6.80E+01

Sample ID: 438663 **Sample Dates: 2/27/2017 - 3/27/2017**

Nuclide	Activity	2 Sigma Error	MDA
Beta	<-9.0E-01	0.00E+00	2.81E+00
Mn-54	<1.83E+00	0.00E+00	1.83E+00
Co-58	<3.27E+00	0.00E+00	3.27E+00
Fe-59	<9.02E+00	0.00E+00	9.02E+00
Co-60	<2.45E+00	0.00E+00	2.45E+00
Zn-65	<7.71E+00	0.00E+00	7.71E+00
Zr-95	<8.01E+00	0.00E+00	8.01E+00
Nb-95	<4.06E+00	0.00E+00	4.06E+00
I-131	<1.19E+01	0.00E+00	1.19E+01
Cs-134	<3.97E+00	0.00E+00	3.97E+00
Cs-137	<3.18E+00	0.00E+00	3.18E+00
BaLa-140	<1.00E+01	0.00E+00	1.00E+01
Be-7	<3.34E+01	0.00E+00	3.34E+01
K-40	3.94E+01	3.54E+01	5.46E+01

Sample ID: 440794 **Sample Dates: 3/27/2017 - 4/24/2017**

Nuclide	Activity	2 Sigma Error	MDA
Beta	1.88E+00	8.81E-01	1.39E+00
Mn-54	<3.80E+00	0.00E+00	3.80E+00
Co-58	<3.59E+00	0.00E+00	3.59E+00
Fe-59	<7.67E+00	0.00E+00	7.67E+00
Co-60	<4.16E+00	0.00E+00	4.16E+00
Zn-65	<8.01E+00	0.00E+00	8.01E+00
Zr-95	<5.72E+00	0.00E+00	5.72E+00
Nb-95	<3.80E+00	0.00E+00	3.80E+00

MCGUIRE Radiological Environmental Monitoring Analysis Report - 2017 (Appendix E)

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

Sample Point 119 [INDICATOR - SSW @ 7.4 miles]

Sample ID: 440794 **Sample Dates: 3/27/2017 - 4/24/2017**

Nuclide	Activity	2 Sigma Error	MDA
I-131	<1.20E+01	0.00E+00	1.20E+01
Cs-134	<4.61E+00	0.00E+00	4.61E+00
Cs-137	<3.29E+00	0.00E+00	3.29E+00
BaLa-140	<6.49E+00	0.00E+00	6.49E+00
Be-7	<2.12E+01	0.00E+00	2.12E+01
K-40	4.41E+01	2.60E+01	3.05E+01

Sample ID: 442343 **Sample Dates: 2/27/2017 - 5/22/2017**

Nuclide	Activity	2 Sigma Error	MDA
H3DW	8.88E+02	1.42E+02	1.98E+02

Sample ID: 443062 **Sample Dates: 4/24/2017 - 5/22/2017**

Nuclide	Activity	2 Sigma Error	MDA
Beta	1.46E+00	8.03E-01	1.29E+00
Mn-54	<2.66E+00	0.00E+00	2.66E+00
Co-58	<2.49E+00	0.00E+00	2.49E+00
Fe-59	<5.62E+00	0.00E+00	5.62E+00
Co-60	<2.47E+00	0.00E+00	2.47E+00
Zn-65	<6.06E+00	0.00E+00	6.06E+00
Zr-95	<4.64E+00	0.00E+00	4.64E+00
Nb-95	<3.66E+00	0.00E+00	3.66E+00
I-131	<1.17E+01	0.00E+00	1.17E+01
Cs-134	<3.24E+00	0.00E+00	3.24E+00
Cs-137	<3.28E+00	0.00E+00	3.28E+00
BaLa-140	<7.93E+00	0.00E+00	7.93E+00
Be-7	<2.59E+01	0.00E+00	2.59E+01
K-40	3.43E+01	2.83E+01	4.32E+01

Sample ID: 445667 **Sample Dates: 5/22/2017 - 6/19/2017**

Nuclide	Activity	2 Sigma Error	MDA
Beta	1.36E+00	9.29E-01	1.51E+00
Mn-54	<3.63E+00	0.00E+00	3.63E+00
Co-58	<3.51E+00	0.00E+00	3.51E+00
Fe-59	<9.46E+00	0.00E+00	9.46E+00
Co-60	<2.87E+00	0.00E+00	2.87E+00
Zn-65	<7.38E+00	0.00E+00	7.38E+00
Zr-95	<5.14E+00	0.00E+00	5.14E+00
Nb-95	<2.96E+00	0.00E+00	2.96E+00
I-131	<1.19E+01	0.00E+00	1.19E+01
Cs-134	<3.70E+00	0.00E+00	3.70E+00
Cs-137	<3.24E+00	0.00E+00	3.24E+00
BaLa-140	<5.21E+00	0.00E+00	5.21E+00
Be-7	<3.65E+01	0.00E+00	3.65E+01
K-40	<5.48E+01	0.00E+00	5.48E+01

Sample ID: 447960 **Sample Dates: 6/19/2017 - 7/17/2017**

Nuclide	Activity	2 Sigma Error	MDA
Beta	1.25E+00	9.34E-01	1.53E+00
Mn-54	<3.17E+00	0.00E+00	3.17E+00
Co-58	<3.50E+00	0.00E+00	3.50E+00
Fe-59	<7.74E+00	0.00E+00	7.74E+00
Co-60	<2.81E+00	0.00E+00	2.81E+00
Zn-65	<6.67E+00	0.00E+00	6.67E+00
Zr-95	<7.66E+00	0.00E+00	7.66E+00
Nb-95	<4.39E+00	0.00E+00	4.39E+00
I-131	<1.18E+01	0.00E+00	1.18E+01
Cs-134	<4.70E+00	0.00E+00	4.70E+00
Cs-137	<3.96E+00	0.00E+00	3.96E+00
BaLa-140	<8.65E+00	0.00E+00	8.65E+00
Be-7	<2.77E+01	0.00E+00	2.77E+01
K-40	3.71E+01	3.11E+01	4.54E+01

Sample ID: 450047 **Sample Dates: 5/22/2017 - 8/14/2017**

Nuclide	Activity	2 Sigma Error	MDA
H3DW	5.30E+02	1.25E+02	1.86E+02

Sample ID: 450089 **Sample Dates: 7/17/2017 - 8/14/2017**

Nuclide	Activity	2 Sigma Error	MDA
Beta	2.39E+00	7.90E-01	1.19E+00
Mn-54	<2.77E+00	0.00E+00	2.77E+00
Co-58	<2.70E+00	0.00E+00	2.70E+00
Fe-59	<5.73E+00	0.00E+00	5.73E+00
Co-60	<3.07E+00	0.00E+00	3.07E+00
Zn-65	<6.84E+00	0.00E+00	6.84E+00

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

Sample Point 119 [INDICATOR - SSW @ 7.4 miles]

Sample ID: 450089 **Sample Dates: 7/17/2017 - 8/14/2017**

Nuclide	Activity	2 Sigma Error	MDA
Zr-95	<5.26E+00	0.00E+00	5.26E+00
Nb-95	<4.20E+00	0.00E+00	4.20E+00
I-131	<1.09E+01	0.00E+00	1.09E+01
Cs-134	<2.82E+00	0.00E+00	2.82E+00
Cs-137	<3.32E+00	0.00E+00	3.32E+00
BaLa-140	<6.24E+00	0.00E+00	6.24E+00
Be-7	<2.88E+01	0.00E+00	2.88E+01
K-40	<5.07E+01	0.00E+00	5.07E+01

Sample ID: 451822 **Sample Dates: 8/14/2017 - 9/11/2017**

Nuclide	Activity	2 Sigma Error	MDA
Beta	<-5.9E-01	0.00E+00	1.71E+00
Mn-54	<4.54E+00	0.00E+00	4.54E+00
Co-58	<3.90E+00	0.00E+00	3.90E+00
Fe-59	<9.82E+00	0.00E+00	9.82E+00
Co-60	<4.01E+00	0.00E+00	4.01E+00
Zn-65	<8.06E+00	0.00E+00	8.06E+00
Zr-95	<4.56E+00	0.00E+00	4.56E+00
Nb-95	<3.71E+00	0.00E+00	3.71E+00
I-131	<1.07E+01	0.00E+00	1.07E+01
Cs-134	<3.92E+00	0.00E+00	3.92E+00
Cs-137	<2.92E+00	0.00E+00	2.92E+00
BaLa-140	<6.56E+00	0.00E+00	6.56E+00
Be-7	<2.55E+01	0.00E+00	2.55E+01
K-40	2.77E+01	3.88E+01	6.44E+01

Sample ID: 454586 **Sample Dates: 9/11/2017 - 10/9/2017**

Nuclide	Activity	2 Sigma Error	MDA
Beta	1.15E+00	8.79E-01	1.45E+00
Mn-54	<3.53E+00	0.00E+00	3.53E+00
Co-58	<3.01E+00	0.00E+00	3.01E+00
Fe-59	<6.40E+00	0.00E+00	6.40E+00
Co-60	<3.81E+00	0.00E+00	3.81E+00
Zn-65	<5.94E+00	0.00E+00	5.94E+00
Zr-95	<5.87E+00	0.00E+00	5.87E+00
Nb-95	<4.03E+00	0.00E+00	4.03E+00
I-131	<1.19E+01	0.00E+00	1.19E+01
Cs-134	<3.80E+00	0.00E+00	3.80E+00
Cs-137	<2.75E+00	0.00E+00	2.75E+00
BaLa-140	<8.50E+00	0.00E+00	8.50E+00
Be-7	<2.52E+01	0.00E+00	2.52E+01
K-40	<5.45E+01	0.00E+00	5.45E+01

Sample ID: 461747 **Sample Dates: 10/9/2017 - 11/6/2017**

Nuclide	Activity	2 Sigma Error	MDA
Beta	1.87E+00	8.63E-01	1.35E+00
Mn-54	<4.18E+00	0.00E+00	4.18E+00
Co-58	<3.89E+00	0.00E+00	3.89E+00
Fe-59	<5.41E+00	0.00E+00	5.41E+00
Co-60	<3.21E+00	0.00E+00	3.21E+00
Zn-65	<7.18E+00	0.00E+00	7.18E+00
Zr-95	<7.88E+00	0.00E+00	7.88E+00
Nb-95	<5.98E+00	0.00E+00	5.98E+00
I-131	<1.19E+01	0.00E+00	1.19E+01
Cs-134	<5.25E+00	0.00E+00	5.25E+00
Cs-137	<3.75E+00	0.00E+00	3.75E+00
BaLa-140	<7.41E+00	0.00E+00	7.41E+00
Be-7	<3.55E+01	0.00E+00	3.55E+01
K-40	4.36E+01	3.98E+01	6.16E+01

Sample ID: 462368 **Sample Dates: 8/14/2017 - 12/4/2017**

Nuclide	Activity	2 Sigma Error	MDA
H3DW	7.07E+02	1.33E+02	1.91E+02

Sample ID: 463803 **Sample Dates: 11/6/2017 - 12/4/2017**

Nuclide	Activity	2 Sigma Error	MDA
Beta	<4.37E-01	0.00E+00	1.52E+00
Mn-54	<3.31E+00	0.00E+00	3.31E+00
Co-58	<3.56E+00	0.00E+00	3.56E+00
Fe-59	<7.10E+00	0.00E+00	7.10E+00
Co-60	<2.24E+00	0.00E+00	2.24E+00
Zn-65	<6.08E+00	0.00E+00	6.08E+00
Zr-95	<4.57E+00	0.00E+00	4.57E+00

MCGUIRE Radiological Environmental Monitoring Analysis Report - 2017 (Appendix E)

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

Sample Point 119 [INDICATOR - SSW @ 7.4 miles]

Sample ID: 463803 **Sample Dates: 11/6/2017 - 12/4/2017**

Nuclide	Activity	2 Sigma Error	MDA
Nb-95	<4.20E+00	0.00E+00	4.20E+00
I-131	<1.08E+01	0.00E+00	1.08E+01
Cs-134	<3.25E+00	0.00E+00	3.25E+00
Cs-137	<3.03E+00	0.00E+00	3.03E+00
BaLa-140	<5.99E+00	0.00E+00	5.99E+00
Be-7	<2.76E+01	0.00E+00	2.76E+01
K-40	<4.51E+01	0.00E+00	4.51E+01

Sample ID: 465390 **Sample Dates: 12/4/2017 - 1/2/2018**

Nuclide	Activity	2 Sigma Error	MDA
Beta	4.04E+00	9.52E-01	1.34E+00
Mn-54	<2.09E+00	0.00E+00	2.09E+00
Co-58	<2.67E+00	0.00E+00	2.67E+00
Fe-59	<5.42E+00	0.00E+00	5.42E+00
Co-60	<2.32E+00	0.00E+00	2.32E+00
Zn-65	<5.62E+00	0.00E+00	5.62E+00
Zr-95	<4.85E+00	0.00E+00	4.85E+00
Nb-95	<3.53E+00	0.00E+00	3.53E+00
I-131	<1.17E+01	0.00E+00	1.17E+01
Cs-134	<3.15E+00	0.00E+00	3.15E+00
Cs-137	<2.65E+00	0.00E+00	2.65E+00
BaLa-140	<6.67E+00	0.00E+00	6.67E+00
Be-7	<2.71E+01	0.00E+00	2.71E+01
K-40	8.13E+01	3.22E+01	4.24E+01
H3DW	5.67E+02	1.21E+02	1.76E+02

Sample Point 132 [INDICATOR - SSE @ 11.1 miles]

Sample ID: 431605 **Sample Dates: 12/5/2016 - 1/3/2017**

Nuclide	Activity	2 Sigma Error	MDA
Beta	1.41E+00	8.83E-01	1.43E+00
Mn-54	<4.17E+00	0.00E+00	4.17E+00
Co-58	<2.58E+00	0.00E+00	2.58E+00
Fe-59	<8.62E+00	0.00E+00	8.62E+00
Co-60	<3.59E+00	0.00E+00	3.59E+00
Zn-65	<8.68E+00	0.00E+00	8.68E+00
Zr-95	<6.46E+00	0.00E+00	6.46E+00
Nb-95	<5.64E+00	0.00E+00	5.64E+00
I-131	<1.15E+01	0.00E+00	1.15E+01
Cs-134	<4.41E+00	0.00E+00	4.41E+00
Cs-137	<3.86E+00	0.00E+00	3.86E+00
BaLa-140	<6.69E+00	0.00E+00	6.69E+00
Be-7	<3.40E+01	0.00E+00	3.40E+01
K-40	<8.27E+01	0.00E+00	8.27E+01

Sample ID: 433491 **Sample Dates: 1/3/2017 - 1/30/2017**

Nuclide	Activity	2 Sigma Error	MDA
Beta	2.88E+00	8.03E-01	1.17E+00
Mn-54	<3.45E+00	0.00E+00	3.45E+00
Co-58	<3.79E+00	0.00E+00	3.79E+00
Fe-59	<4.79E+00	0.00E+00	4.79E+00
Co-60	<4.23E+00	0.00E+00	4.23E+00
Zn-65	<7.75E+00	0.00E+00	7.75E+00
Zr-95	<6.12E+00	0.00E+00	6.12E+00
Nb-95	<2.90E+00	0.00E+00	2.90E+00
I-131	<1.18E+01	0.00E+00	1.18E+01
Cs-134	<3.49E+00	0.00E+00	3.49E+00
Cs-137	<4.20E+00	0.00E+00	4.20E+00
BaLa-140	<9.73E+00	0.00E+00	9.73E+00
Be-7	<2.66E+01	0.00E+00	2.66E+01
K-40	<5.63E+01	0.00E+00	5.63E+01

Sample ID: 434739 **Sample Dates: 12/5/2016 - 2/27/2017**

Nuclide	Activity	2 Sigma Error	MDA
H3DW	4.72E+02	1.24E+02	1.90E+02

Sample ID: 436096 **Sample Dates: 1/30/2017 - 2/27/2017**

Nuclide	Activity	2 Sigma Error	MDA
Beta	1.71E+00	8.73E-01	1.38E+00
Mn-54	<3.08E+00	0.00E+00	3.08E+00
Co-58	<4.32E+00	0.00E+00	4.32E+00
Fe-59	<9.20E+00	0.00E+00	9.20E+00
Co-60	<4.41E+00	0.00E+00	4.41E+00

MCGUIRE Radiological Environmental Monitoring Analysis Report - 2017 (Appendix E)

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

Sample Point 132 [INDICATOR - SSE @ 11.1 miles]

Sample ID: 436096 Sample Dates: 1/30/2017 - 2/27/2017

Nuclide	Activity	2 Sigma Error	MDA
Zn-65	<5.35E+00	0.00E+00	5.35E+00
Zr-95	<6.90E+00	0.00E+00	6.90E+00
Nb-95	<4.08E+00	0.00E+00	4.08E+00
I-131	<1.20E+01	0.00E+00	1.20E+01
Cs-134	<4.13E+00	0.00E+00	4.13E+00
Cs-137	<2.99E+00	0.00E+00	2.99E+00
BaLa-140	<7.73E+00	0.00E+00	7.73E+00
Be-7	<4.19E+01	0.00E+00	4.19E+01
K-40	<5.62E+01	0.00E+00	5.62E+01

Sample ID: 438664 Sample Dates: 2/27/2017 - 3/27/2017

Nuclide	Activity	2 Sigma Error	MDA
Beta	<-2.1E+00	0.00E+00	2.83E+00
Mn-54	<2.76E+00	0.00E+00	2.76E+00
Co-58	<3.06E+00	0.00E+00	3.06E+00
Fe-59	<5.74E+00	0.00E+00	5.74E+00
Co-60	<2.66E+00	0.00E+00	2.66E+00
Zn-65	<4.90E+00	0.00E+00	4.90E+00
Zr-95	<5.17E+00	0.00E+00	5.17E+00
Nb-95	<4.28E+00	0.00E+00	4.28E+00
I-131	<1.16E+01	0.00E+00	1.16E+01
Cs-134	<2.75E+00	0.00E+00	2.75E+00
Cs-137	<3.12E+00	0.00E+00	3.12E+00
BaLa-140	<6.62E+00	0.00E+00	6.62E+00
Be-7	<2.75E+01	0.00E+00	2.75E+01
K-40	<4.40E+01	0.00E+00	4.40E+01

Sample ID: 440795 Sample Dates: 3/27/2017 - 4/24/2017

Nuclide	Activity	2 Sigma Error	MDA
Beta	1.60E+00	8.82E-01	1.41E+00
Mn-54	<2.98E+00	0.00E+00	2.98E+00
Co-58	<3.29E+00	0.00E+00	3.29E+00
Fe-59	<4.57E+00	0.00E+00	4.57E+00
Co-60	<4.01E+00	0.00E+00	4.01E+00
Zn-65	<4.99E+00	0.00E+00	4.99E+00
Zr-95	<6.40E+00	0.00E+00	6.40E+00
Nb-95	<3.47E+00	0.00E+00	3.47E+00
I-131	<1.09E+01	0.00E+00	1.09E+01
Cs-134	<4.20E+00	0.00E+00	4.20E+00
Cs-137	<3.43E+00	0.00E+00	3.43E+00
BaLa-140	<9.48E+00	0.00E+00	9.48E+00
Be-7	<2.93E+01	0.00E+00	2.93E+01
K-40	<5.34E+01	0.00E+00	5.34E+01

Sample ID: 442344 Sample Dates: 2/27/2017 - 5/22/2017

Nuclide	Activity	2 Sigma Error	MDA
H3DW	8.62E+02	1.40E+02	1.96E+02

Sample ID: 443063 Sample Dates: 4/24/2017 - 5/22/2017

Nuclide	Activity	2 Sigma Error	MDA
Beta	1.85E+00	8.34E-01	1.32E+00
Mn-54	<3.45E+00	0.00E+00	3.45E+00
Co-58	<3.23E+00	0.00E+00	3.23E+00
Fe-59	<6.86E+00	0.00E+00	6.86E+00
Co-60	<2.95E+00	0.00E+00	2.95E+00
Zn-65	<4.87E+00	0.00E+00	4.87E+00
Zr-95	<6.29E+00	0.00E+00	6.29E+00
Nb-95	<5.39E+00	0.00E+00	5.39E+00
I-131	<1.18E+01	0.00E+00	1.18E+01
Cs-134	<3.95E+00	0.00E+00	3.95E+00
Cs-137	<2.81E+00	0.00E+00	2.81E+00
BaLa-140	<9.69E+00	0.00E+00	9.69E+00
Be-7	<2.89E+01	0.00E+00	2.89E+01
K-40	<4.74E+01	0.00E+00	4.74E+01

Sample ID: 445668 Sample Dates: 5/22/2017 - 6/19/2017

Nuclide	Activity	2 Sigma Error	MDA
Beta	1.39E+00	9.45E-01	1.54E+00
Mn-54	<3.25E+00	0.00E+00	3.25E+00
Co-58	<4.38E+00	0.00E+00	4.38E+00
Fe-59	<8.62E+00	0.00E+00	8.62E+00
Co-60	<3.57E+00	0.00E+00	3.57E+00
Zn-65	<9.18E+00	0.00E+00	9.18E+00

MCGUIRE Radiological Environmental Monitoring Analysis Report - 2017 (Appendix E)

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

Sample Point 132 [INDICATOR - SSE @ 11.1 miles]

Sample ID: 445668 **Sample Dates: 5/22/2017 - 6/19/2017**

Nuclide	Activity	2 Sigma Error	MDA
Zr-95	<8.15E+00	0.00E+00	8.15E+00
Nb-95	<5.41E+00	0.00E+00	5.41E+00
I-131	<1.13E+01	0.00E+00	1.13E+01
Cs-134	<4.99E+00	0.00E+00	4.99E+00
Cs-137	<3.38E+00	0.00E+00	3.38E+00
BaLa-140	<8.60E+00	0.00E+00	8.60E+00
Be-7	<3.22E+01	0.00E+00	3.22E+01
K-40	4.70E+01	3.41E+01	4.70E+01

Sample ID: 447961 **Sample Dates: 6/19/2017 - 7/17/2017**

Nuclide	Activity	2 Sigma Error	MDA
Beta	1.39E+00	9.60E-01	1.57E+00
Mn-54	<3.48E+00	0.00E+00	3.48E+00
Co-58	<4.09E+00	0.00E+00	4.09E+00
Fe-59	<1.13E+01	0.00E+00	1.13E+01
Co-60	<3.97E+00	0.00E+00	3.97E+00
Zn-65	<8.58E+00	0.00E+00	8.58E+00
Zr-95	<8.04E+00	0.00E+00	8.04E+00
Nb-95	<4.82E+00	0.00E+00	4.82E+00
I-131	<1.17E+01	0.00E+00	1.17E+01
Cs-134	<4.89E+00	0.00E+00	4.89E+00
Cs-137	<4.17E+00	0.00E+00	4.17E+00
BaLa-140	<1.05E+01	0.00E+00	1.05E+01
Be-7	<4.28E+01	0.00E+00	4.28E+01
K-40	5.22E+01	4.07E+01	5.98E+01

Sample ID: 450048 **Sample Dates: 5/22/2017 - 8/14/2017**

Nuclide	Activity	2 Sigma Error	MDA
H3DW	6.06E+02	1.27E+02	1.86E+02

Sample ID: 450090 **Sample Dates: 7/17/2017 - 8/14/2017**

Nuclide	Activity	2 Sigma Error	MDA
Beta	2.74E+00	8.20E-01	1.22E+00
Mn-54	<2.45E+00	0.00E+00	2.45E+00
Co-58	<2.95E+00	0.00E+00	2.95E+00
Fe-59	<4.91E+00	0.00E+00	4.91E+00
Co-60	<2.03E+00	0.00E+00	2.03E+00
Zn-65	<5.52E+00	0.00E+00	5.52E+00
Zr-95	<5.04E+00	0.00E+00	5.04E+00
Nb-95	<4.50E+00	0.00E+00	4.50E+00
I-131	<1.09E+01	0.00E+00	1.09E+01
Cs-134	<2.83E+00	0.00E+00	2.83E+00
Cs-137	<3.54E+00	0.00E+00	3.54E+00
BaLa-140	<9.27E+00	0.00E+00	9.27E+00
Be-7	9.35E+00	1.62E+01	2.75E+01
K-40	<4.40E+01	0.00E+00	4.40E+01

Sample ID: 451823 **Sample Dates: 8/14/2017 - 9/11/2017**

Nuclide	Activity	2 Sigma Error	MDA
Beta	<-6.2E-02	0.00E+00	1.74E+00
Mn-54	<3.38E+00	0.00E+00	3.38E+00
Co-58	<3.97E+00	0.00E+00	3.97E+00
Fe-59	<7.55E+00	0.00E+00	7.55E+00
Co-60	<3.46E+00	0.00E+00	3.46E+00
Zn-65	<4.35E+00	0.00E+00	4.35E+00
Zr-95	<5.04E+00	0.00E+00	5.04E+00
Nb-95	<4.16E+00	0.00E+00	4.16E+00
I-131	<1.19E+01	0.00E+00	1.19E+01
Cs-134	<5.34E+00	0.00E+00	5.34E+00
Cs-137	<3.48E+00	0.00E+00	3.48E+00
BaLa-140	<7.99E+00	0.00E+00	7.99E+00
Be-7	<3.73E+01	0.00E+00	3.73E+01
K-40	2.40E+01	3.05E+01	4.96E+01

Sample ID: 454587 **Sample Dates: 9/11/2017 - 10/9/2017**

Nuclide	Activity	2 Sigma Error	MDA
Beta	1.57E+00	9.14E-01	1.48E+00
Mn-54	<3.22E+00	0.00E+00	3.22E+00
Co-58	<3.48E+00	0.00E+00	3.48E+00
Fe-59	<7.10E+00	0.00E+00	7.10E+00
Co-60	<4.18E+00	0.00E+00	4.18E+00
Zn-65	<8.88E+00	0.00E+00	8.88E+00
Zr-95	<6.37E+00	0.00E+00	6.37E+00

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

Sample Point 132 [INDICATOR - SSE @ 11.1 miles]

Sample ID: 454587 **Sample Dates: 9/11/2017 - 10/9/2017**

Nuclide	Activity	2 Sigma Error	MDA
Nb-95	<4.29E+00	0.00E+00	4.29E+00
I-131	<1.20E+01	0.00E+00	1.20E+01
Cs-134	<3.34E+00	0.00E+00	3.34E+00
Cs-137	<3.56E+00	0.00E+00	3.56E+00
BaLa-140	<7.26E+00	0.00E+00	7.26E+00
Be-7	<2.75E+01	0.00E+00	2.75E+01
K-40	8.04E+01	3.87E+01	5.15E+01

Sample ID: 461748 **Sample Dates: 10/9/2017 - 11/6/2017**

Nuclide	Activity	2 Sigma Error	MDA
Beta	1.25E+00	8.43E-01	1.36E+00
Mn-54	<3.53E+00	0.00E+00	3.53E+00
Co-58	<4.28E+00	0.00E+00	4.28E+00
Fe-59	<8.18E+00	0.00E+00	8.18E+00
Co-60	<2.75E+00	0.00E+00	2.75E+00
Zn-65	<5.88E+00	0.00E+00	5.88E+00
Zr-95	<6.54E+00	0.00E+00	6.54E+00
Nb-95	<3.86E+00	0.00E+00	3.86E+00
I-131	<1.17E+01	0.00E+00	1.17E+01
Cs-134	<4.65E+00	0.00E+00	4.65E+00
Cs-137	<3.92E+00	0.00E+00	3.92E+00
BaLa-140	<1.11E+01	0.00E+00	1.11E+01
Be-7	<3.36E+01	0.00E+00	3.36E+01
K-40	<5.32E+01	0.00E+00	5.32E+01

Sample ID: 462369 **Sample Dates: 8/14/2017 - 12/4/2017**

Nuclide	Activity	2 Sigma Error	MDA
H3DW	7.52E+02	1.34E+02	1.91E+02

Sample ID: 463804 **Sample Dates: 11/6/2017 - 12/4/2017**

Nuclide	Activity	2 Sigma Error	MDA
Beta	1.08E+00	9.28E-01	1.53E+00
Mn-54	<2.67E+00	0.00E+00	2.67E+00
Co-58	<2.70E+00	0.00E+00	2.70E+00
Fe-59	<7.50E+00	0.00E+00	7.50E+00
Co-60	<3.84E+00	0.00E+00	3.84E+00
Zn-65	<6.57E+00	0.00E+00	6.57E+00
Zr-95	<5.21E+00	0.00E+00	5.21E+00
Nb-95	<4.36E+00	0.00E+00	4.36E+00
I-131	<1.15E+01	0.00E+00	1.15E+01
Cs-134	<5.19E+00	0.00E+00	5.19E+00
Cs-137	<3.57E+00	0.00E+00	3.57E+00
BaLa-140	<8.66E+00	0.00E+00	8.66E+00
Be-7	<2.36E+01	0.00E+00	2.36E+01
K-40	<6.34E+01	0.00E+00	6.34E+01

Sample ID: 465391 **Sample Dates: 12/4/2017 - 1/2/2018**

Nuclide	Activity	2 Sigma Error	MDA
Beta	3.29E+00	9.30E-01	1.36E+00
Mn-54	<2.25E+00	0.00E+00	2.25E+00
Co-58	<2.76E+00	0.00E+00	2.76E+00
Fe-59	<5.78E+00	0.00E+00	5.78E+00
Co-60	<3.22E+00	0.00E+00	3.22E+00
Zn-65	<3.54E+00	0.00E+00	3.54E+00
Zr-95	<4.90E+00	0.00E+00	4.90E+00
Nb-95	<4.24E+00	0.00E+00	4.24E+00
I-131	<1.09E+01	0.00E+00	1.09E+01
Cs-134	<2.74E+00	0.00E+00	2.74E+00
Cs-137	<3.25E+00	0.00E+00	3.25E+00
BaLa-140	<6.03E+00	0.00E+00	6.03E+00
Be-7	<2.68E+01	0.00E+00	2.68E+01
K-40	4.64E+01	2.80E+01	4.02E+01
H3DW	5.50E+02	1.21E+02	1.77E+02

Sample Point 136 [CONTROL - NNE @ 12.7 miles]

Sample ID: 431606 **Sample Dates: 12/5/2016 - 1/3/2017**

Nuclide	Activity	2 Sigma Error	MDA
Beta	3.22E+00	9.56E-01	1.43E+00
Mn-54	<2.74E+00	0.00E+00	2.74E+00
Co-58	<3.40E+00	0.00E+00	3.40E+00
Fe-59	<4.46E+00	0.00E+00	4.46E+00
Co-60	<2.98E+00	0.00E+00	2.98E+00

MCGUIRE Radiological Environmental Monitoring Analysis Report - 2017 (Appendix E)

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

Sample Point 136 [CONTROL - NNE @ 12.7 miles]

Sample ID: 431606 Sample Dates: 12/5/2016 - 1/3/2017

Nuclide	Activity	2 Sigma Error	MDA
Zn-65	<6.77E+00	0.00E+00	6.77E+00
Zr-95	<4.05E+00	0.00E+00	4.05E+00
Nb-95	<3.93E+00	0.00E+00	3.93E+00
I-131	<1.14E+01	0.00E+00	1.14E+01
Cs-134	<3.62E+00	0.00E+00	3.62E+00
Cs-137	<3.34E+00	0.00E+00	3.34E+00
BaLa-140	<6.89E+00	0.00E+00	6.89E+00
Be-7	<2.54E+01	0.00E+00	2.54E+01
K-40	3.08E+01	2.12E+01	2.82E+01

Sample ID: 433492 Sample Dates: 1/3/2017 - 1/30/2017

Nuclide	Activity	2 Sigma Error	MDA
Beta	2.94E+00	8.07E-01	1.17E+00
Mn-54	<4.12E+00	0.00E+00	4.12E+00
Co-58	<4.08E+00	0.00E+00	4.08E+00
Fe-59	<9.06E+00	0.00E+00	9.06E+00
Co-60	<3.98E+00	0.00E+00	3.98E+00
Zn-65	<7.31E+00	0.00E+00	7.31E+00
Zr-95	<8.38E+00	0.00E+00	8.38E+00
Nb-95	<5.25E+00	0.00E+00	5.25E+00
I-131	<1.12E+01	0.00E+00	1.12E+01
Cs-134	<3.87E+00	0.00E+00	3.87E+00
Cs-137	<3.60E+00	0.00E+00	3.60E+00
BaLa-140	<2.31E+00	0.00E+00	2.31E+00
Be-7	<3.16E+01	0.00E+00	3.16E+01
K-40	<5.72E+01	0.00E+00	5.72E+01

Sample ID: 434740 Sample Dates: 12/5/2016 - 2/27/2017

Nuclide	Activity	2 Sigma Error	MDA
H3DW	<3.16E+01	0.00E+00	1.89E+02

Sample ID: 436097 Sample Dates: 1/30/2017 - 2/27/2017

Nuclide	Activity	2 Sigma Error	MDA
Beta	1.54E+00	8.69E-01	1.39E+00
Mn-54	<3.06E+00	0.00E+00	3.06E+00
Co-58	<2.59E+00	0.00E+00	2.59E+00
Fe-59	<8.67E+00	0.00E+00	8.67E+00
Co-60	<2.60E+00	0.00E+00	2.60E+00
Zn-65	<5.47E+00	0.00E+00	5.47E+00
Zr-95	<5.43E+00	0.00E+00	5.43E+00
Nb-95	<4.27E+00	0.00E+00	4.27E+00
I-131	<1.16E+01	0.00E+00	1.16E+01
Cs-134	<3.40E+00	0.00E+00	3.40E+00
Cs-137	<3.13E+00	0.00E+00	3.13E+00
BaLa-140	<9.10E+00	0.00E+00	9.10E+00
Be-7	<2.80E+01	0.00E+00	2.80E+01
K-40	7.21E+01	2.86E+01	2.96E+01

Sample ID: 438665 Sample Dates: 2/27/2017 - 3/27/2017

Nuclide	Activity	2 Sigma Error	MDA
Beta	1.47E+00	8.74E-01	1.41E+00
Mn-54	<4.36E+00	0.00E+00	4.36E+00
Co-58	<5.57E+00	0.00E+00	5.57E+00
Fe-59	<8.57E+00	0.00E+00	8.57E+00
Co-60	<4.01E+00	0.00E+00	4.01E+00
Zn-65	<1.11E+01	0.00E+00	1.11E+01
Zr-95	<7.78E+00	0.00E+00	7.78E+00
Nb-95	<4.64E+00	0.00E+00	4.64E+00
I-131	<1.11E+01	0.00E+00	1.11E+01
Cs-134	<4.41E+00	0.00E+00	4.41E+00
Cs-137	<3.65E+00	0.00E+00	3.65E+00
BaLa-140	<6.56E+00	0.00E+00	6.56E+00
Be-7	<4.03E+01	0.00E+00	4.03E+01
K-40	<6.85E+01	0.00E+00	6.85E+01

Sample ID: 440796 Sample Dates: 3/27/2017 - 4/24/2017

Nuclide	Activity	2 Sigma Error	MDA
Beta	1.62E+00	8.81E-01	1.41E+00
Mn-54	<3.98E+00	0.00E+00	3.98E+00
Co-58	<3.45E+00	0.00E+00	3.45E+00
Fe-59	<8.82E+00	0.00E+00	8.82E+00
Co-60	<4.53E+00	0.00E+00	4.53E+00
Zn-65	<6.35E+00	0.00E+00	6.35E+00

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

Sample Point 136 [CONTROL - NNE @ 12.7 miles]

Sample ID: 440796 **Sample Dates: 3/27/2017 - 4/24/2017**

Nuclide	Activity	2 Sigma Error	MDA
Zr-95	<6.12E+00	0.00E+00	6.12E+00
Nb-95	<4.89E+00	0.00E+00	4.89E+00
I-131	<1.13E+01	0.00E+00	1.13E+01
Cs-134	<5.49E+00	0.00E+00	5.49E+00
Cs-137	<3.48E+00	0.00E+00	3.48E+00
BaLa-140	<1.02E+01	0.00E+00	1.02E+01
Be-7	<3.48E+01	0.00E+00	3.48E+01
K-40	2.47E+01	3.12E+01	5.09E+01

Sample ID: 442345 **Sample Dates: 2/27/2017 - 5/22/2017**

Nuclide	Activity	2 Sigma Error	MDA
H3DW	<9.75E+00	0.00E+00	1.99E+02

Sample ID: 443064 **Sample Dates: 4/24/2017 - 5/22/2017**

Nuclide	Activity	2 Sigma Error	MDA
Beta	1.40E+00	8.11E-01	1.31E+00
Mn-54	<2.68E+00	0.00E+00	2.68E+00
Co-58	<3.87E+00	0.00E+00	3.87E+00
Fe-59	<5.69E+00	0.00E+00	5.69E+00
Co-60	<4.17E+00	0.00E+00	4.17E+00
Zn-65	<5.30E+00	0.00E+00	5.30E+00
Zr-95	<7.70E+00	0.00E+00	7.70E+00
Nb-95	<3.54E+00	0.00E+00	3.54E+00
I-131	<1.19E+01	0.00E+00	1.19E+01
Cs-134	<2.59E+00	0.00E+00	2.59E+00
Cs-137	<3.68E+00	0.00E+00	3.68E+00
BaLa-140	<7.21E+00	0.00E+00	7.21E+00
Be-7	<3.13E+01	0.00E+00	3.13E+01
K-40	<5.59E+01	0.00E+00	5.59E+01

Sample ID: 445669 **Sample Dates: 5/22/2017 - 6/19/2017**

Nuclide	Activity	2 Sigma Error	MDA
Beta	1.58E+00	9.57E-01	1.55E+00
Mn-54	<2.83E+00	0.00E+00	2.83E+00
Co-58	<3.49E+00	0.00E+00	3.49E+00
Fe-59	<6.01E+00	0.00E+00	6.01E+00
Co-60	<3.04E+00	0.00E+00	3.04E+00
Zn-65	<5.60E+00	0.00E+00	5.60E+00
Zr-95	<5.24E+00	0.00E+00	5.24E+00
Nb-95	<3.92E+00	0.00E+00	3.92E+00
I-131	<1.15E+01	0.00E+00	1.15E+01
Cs-134	<3.48E+00	0.00E+00	3.48E+00
Cs-137	<2.90E+00	0.00E+00	2.90E+00
BaLa-140	<9.93E+00	0.00E+00	9.93E+00
Be-7	<3.06E+01	0.00E+00	3.06E+01
K-40	<5.63E+01	0.00E+00	5.63E+01

Sample ID: 447962 **Sample Dates: 6/19/2017 - 7/17/2017**

Nuclide	Activity	2 Sigma Error	MDA
Beta	1.86E+00	9.78E-01	1.57E+00
Mn-54	<3.35E+00	0.00E+00	3.35E+00
Co-58	<1.93E+00	0.00E+00	1.93E+00
Fe-59	<4.58E+00	0.00E+00	4.58E+00
Co-60	<4.19E+00	0.00E+00	4.19E+00
Zn-65	<7.04E+00	0.00E+00	7.04E+00
Zr-95	<7.37E+00	0.00E+00	7.37E+00
Nb-95	<4.38E+00	0.00E+00	4.38E+00
I-131	<1.20E+01	0.00E+00	1.20E+01
Cs-134	<3.96E+00	0.00E+00	3.96E+00
Cs-137	<4.64E+00	0.00E+00	4.64E+00
BaLa-140	<9.10E+00	0.00E+00	9.10E+00
Be-7	<3.70E+01	0.00E+00	3.70E+01
K-40	3.48E+01	2.74E+01	3.71E+01

Sample ID: 450049 **Sample Dates: 5/22/2017 - 8/14/2017**

Nuclide	Activity	2 Sigma Error	MDA
H3DW	<7.10E+01	0.00E+00	1.86E+02

Sample ID: 450091 **Sample Dates: 7/17/2017 - 8/14/2017**

Nuclide	Activity	2 Sigma Error	MDA
Beta	2.16E+00	7.95E-01	1.22E+00
Mn-54	<3.15E+00	0.00E+00	3.15E+00
Co-58	<2.36E+00	0.00E+00	2.36E+00
Fe-59	<6.05E+00	0.00E+00	6.05E+00

MCGUIRE Radiological Environmental Monitoring Analysis Report - 2017 (Appendix E)

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

Sample Point 136 [CONTROL - NNE @ 12.7 miles]

Sample ID: 450091 **Sample Dates: 7/17/2017 - 8/14/2017**

Nuclide	Activity	2 Sigma Error	MDA
Co-60	<2.59E+00	0.00E+00	2.59E+00
Zn-65	<6.64E+00	0.00E+00	6.64E+00
Zr-95	<5.06E+00	0.00E+00	5.06E+00
Nb-95	<4.31E+00	0.00E+00	4.31E+00
I-131	<1.19E+01	0.00E+00	1.19E+01
Cs-134	<2.99E+00	0.00E+00	2.99E+00
Cs-137	<2.48E+00	0.00E+00	2.48E+00
BaLa-140	<7.27E+00	0.00E+00	7.27E+00
Be-7	<2.97E+01	0.00E+00	2.97E+01
K-40	<5.14E+01	0.00E+00	5.14E+01

Sample ID: 451824 **Sample Dates: 8/14/2017 - 9/11/2017**

Nuclide	Activity	2 Sigma Error	MDA
Beta	<1.94E-01	0.00E+00	1.74E+00
Mn-54	<3.08E+00	0.00E+00	3.08E+00
Co-58	<3.09E+00	0.00E+00	3.09E+00
Fe-59	<6.52E+00	0.00E+00	6.52E+00
Co-60	<3.76E+00	0.00E+00	3.76E+00
Zn-65	<7.26E+00	0.00E+00	7.26E+00
Zr-95	<5.48E+00	0.00E+00	5.48E+00
Nb-95	<4.09E+00	0.00E+00	4.09E+00
I-131	<1.20E+01	0.00E+00	1.20E+01
Cs-134	<3.27E+00	0.00E+00	3.27E+00
Cs-137	<3.65E+00	0.00E+00	3.65E+00
BaLa-140	<8.25E+00	0.00E+00	8.25E+00
Be-7	<2.84E+01	0.00E+00	2.84E+01
K-40	<5.28E+01	0.00E+00	5.28E+01

Sample ID: 454588 **Sample Dates: 9/11/2017 - 10/9/2017**

Nuclide	Activity	2 Sigma Error	MDA
Beta	2.19E+00	9.34E-01	1.47E+00
Mn-54	<3.09E+00	0.00E+00	3.09E+00
Co-58	<2.99E+00	0.00E+00	2.99E+00
Fe-59	<6.53E+00	0.00E+00	6.53E+00
Co-60	<3.62E+00	0.00E+00	3.62E+00
Zn-65	<8.05E+00	0.00E+00	8.05E+00
Zr-95	<6.07E+00	0.00E+00	6.07E+00
Nb-95	<3.36E+00	0.00E+00	3.36E+00
I-131	<1.18E+01	0.00E+00	1.18E+01
Cs-134	<3.21E+00	0.00E+00	3.21E+00
Cs-137	<3.75E+00	0.00E+00	3.75E+00
BaLa-140	<9.18E+00	0.00E+00	9.18E+00
Be-7	<3.69E+01	0.00E+00	3.69E+01
K-40	5.37E+01	3.51E+01	4.86E+01

Sample ID: 461749 **Sample Dates: 10/9/2017 - 11/6/2017**

Nuclide	Activity	2 Sigma Error	MDA
Beta	2.51E+00	9.01E-01	1.37E+00
Mn-54	<2.48E+00	0.00E+00	2.48E+00
Co-58	<4.67E+00	0.00E+00	4.67E+00
Fe-59	<5.14E+00	0.00E+00	5.14E+00
Co-60	<4.30E+00	0.00E+00	4.30E+00
Zn-65	<8.63E+00	0.00E+00	8.63E+00
Zr-95	<9.46E+00	0.00E+00	9.46E+00
Nb-95	<4.65E+00	0.00E+00	4.65E+00
I-131	<1.12E+01	0.00E+00	1.12E+01
Cs-134	<3.88E+00	0.00E+00	3.88E+00
Cs-137	<3.89E+00	0.00E+00	3.89E+00
BaLa-140	<6.98E+00	0.00E+00	6.98E+00
Be-7	<4.64E+01	0.00E+00	4.64E+01
K-40	<6.44E+01	0.00E+00	6.44E+01

Sample ID: 462370 **Sample Dates: 8/14/2017 - 12/4/2017**

Nuclide	Activity	2 Sigma Error	MDA
H3DW	<7.38E+01	0.00E+00	1.91E+02

Sample ID: 463805 **Sample Dates: 11/6/2017 - 12/4/2017**

Nuclide	Activity	2 Sigma Error	MDA
Beta	1.03E+00	9.26E-01	1.53E+00
Mn-54	<2.50E+00	0.00E+00	2.50E+00
Co-58	<2.76E+00	0.00E+00	2.76E+00
Fe-59	<6.33E+00	0.00E+00	6.33E+00
Co-60	<2.59E+00	0.00E+00	2.59E+00

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

Sample Point 136 [CONTROL - NNE @ 12.7 miles]

Sample ID: 463805 **Sample Dates: 11/6/2017 - 12/4/2017**

Nuclide	Activity	2 Sigma Error	MDA
Zn-65	<4.75E+00	0.00E+00	4.75E+00
Zr-95	<5.20E+00	0.00E+00	5.20E+00
Nb-95	<3.08E+00	0.00E+00	3.08E+00
I-131	<8.83E+00	0.00E+00	8.83E+00
Cs-134	<2.95E+00	0.00E+00	2.95E+00
Cs-137	<2.65E+00	0.00E+00	2.65E+00
BaLa-140	<7.68E+00	0.00E+00	7.68E+00
Be-7	<2.17E+01	0.00E+00	2.17E+01
K-40	8.40E+01	3.23E+01	3.86E+01

Sample ID: 465392 **Sample Dates: 12/4/2017 - 1/2/2018**

Nuclide	Activity	2 Sigma Error	MDA
Beta	2.69E+00	9.01E-01	1.36E+00
Mn-54	<4.29E+00	0.00E+00	4.29E+00
Co-58	<2.35E+00	0.00E+00	2.35E+00
Fe-59	<5.61E+00	0.00E+00	5.61E+00
Co-60	<3.43E+00	0.00E+00	3.43E+00
Zn-65	<8.41E+00	0.00E+00	8.41E+00
Zr-95	<7.29E+00	0.00E+00	7.29E+00
Nb-95	<5.25E+00	0.00E+00	5.25E+00
I-131	<1.17E+01	0.00E+00	1.17E+01
Cs-134	<3.06E+00	0.00E+00	3.06E+00
Cs-137	<3.00E+00	0.00E+00	3.00E+00
BaLa-140	<8.92E+00	0.00E+00	8.92E+00
Be-7	<3.68E+01	0.00E+00	3.68E+01
K-40	<5.81E+01	0.00E+00	5.81E+01
H3DW	<2.83E+01	0.00E+00	1.76E+02

Sample Point 194 [INDICATOR - NNW @ 6.73 miles]

Sample ID: 431607 **Sample Dates: 12/5/2016 - 1/3/2017**

Nuclide	Activity	2 Sigma Error	MDA
Beta	1.43E+00	8.75E-01	1.42E+00
Mn-54	<2.95E+00	0.00E+00	2.95E+00
Co-58	<2.90E+00	0.00E+00	2.90E+00
Fe-59	<6.90E+00	0.00E+00	6.90E+00
Co-60	<3.75E+00	0.00E+00	3.75E+00
Zn-65	<7.27E+00	0.00E+00	7.27E+00
Zr-95	<5.47E+00	0.00E+00	5.47E+00
Nb-95	<4.62E+00	0.00E+00	4.62E+00
I-131	<1.16E+01	0.00E+00	1.16E+01
Cs-134	<3.09E+00	0.00E+00	3.09E+00
Cs-137	<3.26E+00	0.00E+00	3.26E+00
BaLa-140	<8.13E+00	0.00E+00	8.13E+00
Be-7	<3.47E+01	0.00E+00	3.47E+01
K-40	4.74E+01	4.59E+01	7.31E+01

Sample ID: 433493 **Sample Dates: 1/3/2017 - 1/30/2017**

Nuclide	Activity	2 Sigma Error	MDA
Beta	1.80E+00	7.51E-01	1.16E+00
Mn-54	<4.19E+00	0.00E+00	4.19E+00
Co-58	<3.89E+00	0.00E+00	3.89E+00
Fe-59	<9.20E+00	0.00E+00	9.20E+00
Co-60	<4.43E+00	0.00E+00	4.43E+00
Zn-65	<7.44E+00	0.00E+00	7.44E+00
Zr-95	<7.75E+00	0.00E+00	7.75E+00
Nb-95	<5.09E+00	0.00E+00	5.09E+00
I-131	<1.20E+01	0.00E+00	1.20E+01
Cs-134	<4.86E+00	0.00E+00	4.86E+00
Cs-137	<4.42E+00	0.00E+00	4.42E+00
BaLa-140	<1.04E+01	0.00E+00	1.04E+01
Be-7	<3.35E+01	0.00E+00	3.35E+01
K-40	<6.54E+01	0.00E+00	6.54E+01

Sample ID: 434741 **Sample Dates: 12/5/2016 - 2/27/2017**

Nuclide	Activity	2 Sigma Error	MDA
H3DW	<1.82E+02	0.00E+00	1.90E+02

Sample ID: 436098 **Sample Dates: 1/30/2017 - 2/27/2017**

Nuclide	Activity	2 Sigma Error	MDA
Beta	2.20E+00	8.95E-01	1.39E+00
Mn-54	<3.59E+00	0.00E+00	3.59E+00
Co-58	<4.18E+00	0.00E+00	4.18E+00

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

Sample Point 194 [INDICATOR - NNW @ 6.73 miles]

Sample ID: 436098 **Sample Dates: 1/30/2017 - 2/27/2017**

Nuclide	Activity	2 Sigma Error	MDA
Fe-59	<5.81E+00	0.00E+00	5.81E+00
Co-60	<2.37E+00	0.00E+00	2.37E+00
Zn-65	<7.74E+00	0.00E+00	7.74E+00
Zr-95	<7.79E+00	0.00E+00	7.79E+00
Nb-95	<4.40E+00	0.00E+00	4.40E+00
I-131	<1.04E+01	0.00E+00	1.04E+01
Cs-134	<3.99E+00	0.00E+00	3.99E+00
Cs-137	<3.87E+00	0.00E+00	3.87E+00
BaLa-140	<1.11E+01	0.00E+00	1.11E+01
Be-7	<4.35E+01	0.00E+00	4.35E+01
K-40	<6.61E+01	0.00E+00	6.61E+01

Sample ID: 438666 **Sample Dates: 2/27/2017 - 3/27/2017**

Nuclide	Activity	2 Sigma Error	MDA
Beta	1.68E+00	8.83E-01	1.40E+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	<8.82E+00	0.00E+00	8.82E+00
Co-60	<3.23E+00	0.00E+00	3.23E+00
Zn-65	<6.81E+00	0.00E+00	6.81E+00
Zr-95	<7.91E+00	0.00E+00	7.91E+00
Nb-95	<5.00E+00	0.00E+00	5.00E+00
I-131	<1.19E+01	0.00E+00	1.19E+01
Cs-134	<3.39E+00	0.00E+00	3.39E+00
Cs-137	<3.46E+00	0.00E+00	3.46E+00
BaLa-140	<6.31E+00	0.00E+00	6.31E+00
Be-7	<2.89E+01	0.00E+00	2.89E+01
K-40	3.07E+01	2.89E+01	4.45E+01

Sample ID: 440797 **Sample Dates: 3/27/2017 - 4/24/2017**

Nuclide	Activity	2 Sigma Error	MDA
Beta	1.22E+00	8.59E-01	1.40E+00
Mn-54	<3.09E+00	0.00E+00	3.09E+00
Co-58	<3.03E+00	0.00E+00	3.03E+00
Fe-59	<4.70E+00	0.00E+00	4.70E+00
Co-60	<3.90E+00	0.00E+00	3.90E+00
Zn-65	<7.17E+00	0.00E+00	7.17E+00
Zr-95	<6.04E+00	0.00E+00	6.04E+00
Nb-95	<3.13E+00	0.00E+00	3.13E+00
I-131	<1.09E+01	0.00E+00	1.09E+01
Cs-134	<4.48E+00	0.00E+00	4.48E+00
Cs-137	<3.81E+00	0.00E+00	3.81E+00
BaLa-140	<9.62E+00	0.00E+00	9.62E+00
Be-7	<3.21E+01	0.00E+00	3.21E+01
K-40	<5.17E+01	0.00E+00	5.17E+01

Sample ID: 442346 **Sample Dates: 2/27/2017 - 5/22/2017**

Nuclide	Activity	2 Sigma Error	MDA
H3DW	2.33E+02	1.22E+02	1.98E+02

Sample ID: 443065 **Sample Dates: 4/24/2017 - 5/22/2017**

Nuclide	Activity	2 Sigma Error	MDA
Beta	1.10E+00	7.94E-01	1.30E+00
Mn-54	<2.52E+00	0.00E+00	2.52E+00
Co-58	<3.38E+00	0.00E+00	3.38E+00
Fe-59	<7.05E+00	0.00E+00	7.05E+00
Co-60	<3.37E+00	0.00E+00	3.37E+00
Zn-65	<6.57E+00	0.00E+00	6.57E+00
Zr-95	<7.42E+00	0.00E+00	7.42E+00
Nb-95	<3.94E+00	0.00E+00	3.94E+00
I-131	<1.20E+01	0.00E+00	1.20E+01
Cs-134	<3.50E+00	0.00E+00	3.50E+00
Cs-137	<3.27E+00	0.00E+00	3.27E+00
BaLa-140	<7.47E+00	0.00E+00	7.47E+00
Be-7	<2.87E+01	0.00E+00	2.87E+01
K-40	9.04E+01	4.23E+01	5.63E+01

Sample ID: 445670 **Sample Dates: 5/22/2017 - 6/19/2017**

Nuclide	Activity	2 Sigma Error	MDA
Beta	1.24E+00	9.35E-01	1.53E+00
Mn-54	<4.26E+00	0.00E+00	4.26E+00
Co-58	<2.68E+00	0.00E+00	2.68E+00
Fe-59	<7.76E+00	0.00E+00	7.76E+00

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

Sample Point 194 [INDICATOR - NNW @ 6.73 miles]

Sample ID: 445670 **Sample Dates: 5/22/2017 - 6/19/2017**

Nuclide	Activity	2 Sigma Error	MDA
Co-60	<3.28E+00	0.00E+00	3.28E+00
Zn-65	<5.19E+00	0.00E+00	5.19E+00
Zr-95	<7.69E+00	0.00E+00	7.69E+00
Nb-95	<4.40E+00	0.00E+00	4.40E+00
I-131	<1.17E+01	0.00E+00	1.17E+01
Cs-134	<4.55E+00	0.00E+00	4.55E+00
Cs-137	<3.82E+00	0.00E+00	3.82E+00
BaLa-140	<8.60E+00	0.00E+00	8.60E+00
Be-7	<3.52E+01	0.00E+00	3.52E+01
K-40	<6.25E+01	0.00E+00	6.25E+01

Sample ID: 447963 **Sample Dates: 6/19/2017 - 7/17/2017**

Nuclide	Activity	2 Sigma Error	MDA
Beta	1.60E+00	9.57E-01	1.55E+00
Mn-54	<3.93E+00	0.00E+00	3.93E+00
Co-58	<3.85E+00	0.00E+00	3.85E+00
Fe-59	<9.11E+00	0.00E+00	9.11E+00
Co-60	<3.57E+00	0.00E+00	3.57E+00
Zn-65	<8.60E+00	0.00E+00	8.60E+00
Zr-95	<6.82E+00	0.00E+00	6.82E+00
Nb-95	<5.29E+00	0.00E+00	5.29E+00
I-131	<1.15E+01	0.00E+00	1.15E+01
Cs-134	<4.36E+00	0.00E+00	4.36E+00
Cs-137	<4.00E+00	0.00E+00	4.00E+00
BaLa-140	<9.37E+00	0.00E+00	9.37E+00
Be-7	8.07E+00	1.82E+01	3.21E+01
K-40	<6.18E+01	0.00E+00	6.18E+01

Sample ID: 450050 **Sample Dates: 5/22/2017 - 8/14/2017**

Nuclide	Activity	2 Sigma Error	MDA
H3DW	3.20E+02	1.19E+02	1.86E+02

Sample ID: 450092 **Sample Dates: 7/17/2017 - 8/14/2017**

Nuclide	Activity	2 Sigma Error	MDA
Beta	2.22E+00	7.91E-01	1.20E+00
Mn-54	<2.71E+00	0.00E+00	2.71E+00
Co-58	<3.99E+00	0.00E+00	3.99E+00
Fe-59	<8.46E+00	0.00E+00	8.46E+00
Co-60	<4.28E+00	0.00E+00	4.28E+00
Zn-65	<6.70E+00	0.00E+00	6.70E+00
Zr-95	<6.28E+00	0.00E+00	6.28E+00
Nb-95	<3.71E+00	0.00E+00	3.71E+00
I-131	<1.16E+01	0.00E+00	1.16E+01
Cs-134	<4.54E+00	0.00E+00	4.54E+00
Cs-137	<3.81E+00	0.00E+00	3.81E+00
BaLa-140	<9.15E+00	0.00E+00	9.15E+00
Be-7	<3.66E+01	0.00E+00	3.66E+01
K-40	<5.66E+01	0.00E+00	5.66E+01

Sample ID: 451825 **Sample Dates: 8/14/2017 - 9/11/2017**

Nuclide	Activity	2 Sigma Error	MDA
Beta	<-2.9E-01	0.00E+00	1.73E+00
Mn-54	<4.66E+00	0.00E+00	4.66E+00
Co-58	<3.58E+00	0.00E+00	3.58E+00
Fe-59	<8.48E+00	0.00E+00	8.48E+00
Co-60	<3.98E+00	0.00E+00	3.98E+00
Zn-65	<6.56E+00	0.00E+00	6.56E+00
Zr-95	<9.11E+00	0.00E+00	9.11E+00
Nb-95	<4.29E+00	0.00E+00	4.29E+00
I-131	<1.03E+01	0.00E+00	1.03E+01
Cs-134	<3.60E+00	0.00E+00	3.60E+00
Cs-137	<3.60E+00	0.00E+00	3.60E+00
BaLa-140	<8.12E+00	0.00E+00	8.12E+00
Be-7	<3.03E+01	0.00E+00	3.03E+01
K-40	<7.00E+01	0.00E+00	7.00E+01

Sample ID: 454589 **Sample Dates: 9/11/2017 - 10/9/2017**

Nuclide	Activity	2 Sigma Error	MDA
Beta	2.10E+00	9.37E-01	1.47E+00
Mn-54	<3.33E+00	0.00E+00	3.33E+00
Co-58	<2.77E+00	0.00E+00	2.77E+00
Fe-59	<6.61E+00	0.00E+00	6.61E+00
Co-60	<3.96E+00	0.00E+00	3.96E+00

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

Sample Point 194 [INDICATOR - NNW @ 6.73 miles]

Sample ID: 454589 **Sample Dates: 9/11/2017 - 10/9/2017**

Nuclide	Activity	2 Sigma Error	MDA
Zn-65	<8.23E+00	0.00E+00	8.23E+00
Zr-95	<6.31E+00	0.00E+00	6.31E+00
Nb-95	<4.57E+00	0.00E+00	4.57E+00
I-131	<1.19E+01	0.00E+00	1.19E+01
Cs-134	<3.56E+00	0.00E+00	3.56E+00
Cs-137	<2.99E+00	0.00E+00	2.99E+00
BaLa-140	<9.23E+00	0.00E+00	9.23E+00
Be-7	<2.87E+01	0.00E+00	2.87E+01
K-40	7.69E+01	3.47E+01	4.11E+01

Sample ID: 461750 **Sample Dates: 10/9/2017 - 11/6/2017**

Nuclide	Activity	2 Sigma Error	MDA
Beta	1.75E+00	8.59E-01	1.36E+00
Mn-54	<4.31E+00	0.00E+00	4.31E+00
Co-58	<3.58E+00	0.00E+00	3.58E+00
Fe-59	<8.49E+00	0.00E+00	8.49E+00
Co-60	<3.57E+00	0.00E+00	3.57E+00
Zn-65	<7.33E+00	0.00E+00	7.33E+00
Zr-95	<7.27E+00	0.00E+00	7.27E+00
Nb-95	<4.57E+00	0.00E+00	4.57E+00
I-131	<1.17E+01	0.00E+00	1.17E+01
Cs-134	<3.60E+00	0.00E+00	3.60E+00
Cs-137	<4.52E+00	0.00E+00	4.52E+00
BaLa-140	<8.14E+00	0.00E+00	8.14E+00
Be-7	<3.18E+01	0.00E+00	3.18E+01
K-40	<7.72E+01	0.00E+00	7.72E+01

Sample ID: 462371 **Sample Dates: 8/14/2017 - 12/4/2017**

Nuclide	Activity	2 Sigma Error	MDA
H3DW	<1.43E+02	0.00E+00	1.91E+02

Sample ID: 463806 **Sample Dates: 11/6/2017 - 12/4/2017**

Nuclide	Activity	2 Sigma Error	MDA
Beta	1.49E+00	9.45E-01	1.53E+00
Mn-54	<4.44E+00	0.00E+00	4.44E+00
Co-58	<3.63E+00	0.00E+00	3.63E+00
Fe-59	<5.56E+00	0.00E+00	5.56E+00
Co-60	<2.46E+00	0.00E+00	2.46E+00
Zn-65	<5.85E+00	0.00E+00	5.85E+00
Zr-95	<7.52E+00	0.00E+00	7.52E+00
Nb-95	<4.22E+00	0.00E+00	4.22E+00
I-131	<1.18E+01	0.00E+00	1.18E+01
Cs-134	<4.41E+00	0.00E+00	4.41E+00
Cs-137	<3.48E+00	0.00E+00	3.48E+00
BaLa-140	<9.16E+00	0.00E+00	9.16E+00
Be-7	<3.17E+01	0.00E+00	3.17E+01
K-40	<4.58E+01	0.00E+00	4.58E+01

Sample ID: 465393 **Sample Dates: 12/4/2017 - 1/2/2018**

Nuclide	Activity	2 Sigma Error	MDA
Beta	1.70E+00	8.55E-01	1.35E+00
Mn-54	<2.76E+00	0.00E+00	2.76E+00
Co-58	<3.36E+00	0.00E+00	3.36E+00
Fe-59	<9.72E+00	0.00E+00	9.72E+00
Co-60	<4.63E+00	0.00E+00	4.63E+00
Zn-65	<9.46E+00	0.00E+00	9.46E+00
Zr-95	<7.57E+00	0.00E+00	7.57E+00
Nb-95	<3.79E+00	0.00E+00	3.79E+00
I-131	<1.17E+01	0.00E+00	1.17E+01
Cs-134	<3.59E+00	0.00E+00	3.59E+00
Cs-137	<4.74E+00	0.00E+00	4.74E+00
BaLa-140	<1.15E+01	0.00E+00	1.15E+01
Be-7	<3.14E+01	0.00E+00	3.14E+01
K-40	<7.65E+01	0.00E+00	7.65E+01
H3DW	1.99E+02	1.09E+02	1.77E+02

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

Sample Point 129 [INDICATOR - ENE @ 0.51 miles]

Sample ID: 439935 **Sample Dates: 4/10/2017 - 4/10/2017** **FREESWIM**

Nuclide	Activity	2 Sigma Error	MDA
Mn-54	<3.36E+01	0.00E+00	3.36E+01
Co-58	<3.47E+01	0.00E+00	3.47E+01

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

Sample Point 129 [INDICATOR - ENE @ 0.51 miles]

Sample ID:	439935	Sample Dates: 4/10/2017 - 4/10/2017	FREESWIM	Nuclide	Activity	2 Sigma Error	MDA
				Fe-59	<8.21E+01	0.00E+00	8.21E+01
				Co-60	<1.42E+01	0.00E+00	1.42E+01
				Zn-65	<1.11E+02	0.00E+00	1.11E+02
				Nb-95	<6.06E+01	0.00E+00	6.06E+01
				I-131	<6.31E+01	0.00E+00	6.31E+01
				Cs-134	<5.28E+01	0.00E+00	5.28E+01
				Cs-137	<6.26E+01	0.00E+00	6.26E+01
				Be-7	<2.56E+02	0.00E+00	2.56E+02
				K-40	3.25E+03	1.07E+03	1.18E+03
				Ag-110M	<3.74E+01	0.00E+00	3.74E+01
				Sb-122	<3.34E+02	0.00E+00	3.34E+02
				Sb-125	<9.28E+01	0.00E+00	9.28E+01
Sample ID:	**439936**	**Sample Dates: 4/10/2017 - 4/11/2017**	**BOTMFEEDER**	**Nuclide**	**Activity**	**2 Sigma Error**	**MDA**
				Mn-54	<2.23E+01	0.00E+00	2.23E+01
				Co-58	<2.42E+01	0.00E+00	2.42E+01
				Fe-59	<5.73E+01	0.00E+00	5.73E+01
				Co-60	<3.08E+01	0.00E+00	3.08E+01
				Zn-65	<6.55E+01	0.00E+00	6.55E+01
				Nb-95	<2.87E+01	0.00E+00	2.87E+01
				I-131	<3.32E+01	0.00E+00	3.32E+01
				Cs-134	<1.89E+01	0.00E+00	1.89E+01
				Cs-137	<2.54E+01	0.00E+00	2.54E+01
				Be-7	<1.69E+02	0.00E+00	1.69E+02
				K-40	3.01E+03	6.09E+02	4.57E+02
				Ag-110M	<1.96E+01	0.00E+00	1.96E+01
				Sb-122	<1.60E+02	0.00E+00	1.60E+02
				Sb-125	<4.66E+01	0.00E+00	4.66E+01
Sample ID:	**439937**	**Sample Dates: 4/11/2017 - 4/11/2017**	**FREESWIM**	**Nuclide**	**Activity**	**2 Sigma Error**	**MDA**
				Mn-54	<4.43E+01	0.00E+00	4.43E+01
				Co-58	<3.11E+01	0.00E+00	3.11E+01
				Fe-59	<9.21E+01	0.00E+00	9.21E+01
				Co-60	<6.42E+01	0.00E+00	6.42E+01
				Zn-65	<2.84E+01	0.00E+00	2.84E+01
				Nb-95	<4.60E+01	0.00E+00	4.60E+01
				I-131	<4.10E+01	0.00E+00	4.10E+01
				Cs-134	<4.95E+01	0.00E+00	4.95E+01
				Cs-137	<4.25E+01	0.00E+00	4.25E+01
				Be-7	<7.29E+01	0.00E+00	7.29E+01
				K-40	3.03E+03	9.94E+02	8.92E+02
				Ag-110M	<3.30E+01	0.00E+00	3.30E+01
				Sb-122	<3.13E+02	0.00E+00	3.13E+02
				Sb-125	<1.41E+02	0.00E+00	1.41E+02
Sample ID:	**455014**	**Sample Dates: 10/2/2017 - 10/3/2017**	**FREESWIM**	**Nuclide**	**Activity**	**2 Sigma Error**	**MDA**
				Mn-54	<2.67E+01	0.00E+00	2.67E+01
				Co-58	<3.19E+01	0.00E+00	3.19E+01
				Fe-59	<7.54E+01	0.00E+00	7.54E+01
				Co-60	<3.09E+01	0.00E+00	3.09E+01
				Zn-65	<6.85E+01	0.00E+00	6.85E+01
				Nb-95	<3.94E+01	0.00E+00	3.94E+01
				I-131	<4.81E+01	0.00E+00	4.81E+01
				Cs-134	<2.36E+01	0.00E+00	2.36E+01
				Cs-137	<4.14E+01	0.00E+00	4.14E+01
				Be-7	<2.28E+02	0.00E+00	2.28E+02
				K-40	4.34E+03	9.51E+02	4.46E+02
				Ag-110M	<3.94E+01	0.00E+00	3.94E+01
				Sb-122	<1.38E+02	0.00E+00	1.38E+02
				Sb-125	<6.15E+01	0.00E+00	6.15E+01
Sample ID:	**455015**	**Sample Dates: 10/2/2017 - 10/3/2017**	**BOTMFEEDER**	**Nuclide**	**Activity**	**2 Sigma Error**	**MDA**
				Mn-54	<1.88E+01	0.00E+00	1.88E+01
				Co-58	<2.46E+01	0.00E+00	2.46E+01
				Fe-59	<5.25E+01	0.00E+00	5.25E+01
				Co-60	<2.73E+01	0.00E+00	2.73E+01
				Zn-65	<5.32E+01	0.00E+00	5.32E+01
				Nb-95	<1.58E+01	0.00E+00	1.58E+01

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

Sample Point 129 [INDICATOR - ENE @ 0.51 miles]

Sample ID: 455015 **Sample Dates: 10/2/2017 - 10/3/2017** **BOTMFEEDER**

Nuclide	Activity	2 Sigma Error	MDA
I-131	<1.97E+01	0.00E+00	1.97E+01
Cs-134	<2.56E+01	0.00E+00	2.56E+01
Cs-137	<2.21E+01	0.00E+00	2.21E+01
Be-7	<1.02E+02	0.00E+00	1.02E+02
K-40	2.91E+03	6.25E+02	3.81E+02
Ag-110M	<1.62E+01	0.00E+00	1.62E+01
Sb-122	<3.21E+01	0.00E+00	3.21E+01
Sb-125	<5.20E+01	0.00E+00	5.20E+01

Sample ID: 455016 **Sample Dates: 10/2/2017 - 10/3/2017** **FREESWIM**

Nuclide	Activity	2 Sigma Error	MDA
Mn-54	<5.48E+01	0.00E+00	5.48E+01
Co-58	<3.17E+01	0.00E+00	3.17E+01
Fe-59	<1.09E+02	0.00E+00	1.09E+02
Co-60	<4.49E+01	0.00E+00	4.49E+01
Zn-65	<9.95E+01	0.00E+00	9.95E+01
Nb-95	<3.21E+01	0.00E+00	3.21E+01
I-131	<6.97E+01	0.00E+00	6.97E+01
Cs-134	<6.58E+01	0.00E+00	6.58E+01
Cs-137	<6.67E+01	0.00E+00	6.67E+01
Be-7	<5.37E+02	0.00E+00	5.37E+02
K-40	3.43E+03	9.58E+02	1.66E+02
Ag-110M	<4.33E+01	0.00E+00	4.33E+01
Sb-122	<2.83E+02	0.00E+00	2.83E+02
Sb-125	<1.17E+02	0.00E+00	1.17E+02

Sample Point 137 [CONTROL - N @ 12 miles]

Sample ID: 439938 **Sample Dates: 4/10/2017 - 4/10/2017** **FREESWIM**

Nuclide	Activity	2 Sigma Error	MDA
Mn-54	<3.50E+01	0.00E+00	3.50E+01
Co-58	<3.90E+01	0.00E+00	3.90E+01
Fe-59	<9.21E+01	0.00E+00	9.21E+01
Co-60	<2.84E+01	0.00E+00	2.84E+01
Zn-65	<5.01E+01	0.00E+00	5.01E+01
Nb-95	<3.98E+01	0.00E+00	3.98E+01
I-131	<5.18E+01	0.00E+00	5.18E+01
Cs-134	<5.18E+01	0.00E+00	5.18E+01
Cs-137	<3.83E+01	0.00E+00	3.83E+01
Be-7	<2.48E+02	0.00E+00	2.48E+02
K-40	3.41E+03	7.81E+02	1.05E+02
Ag-110M	<3.25E+01	0.00E+00	3.25E+01
Sb-122	<1.53E+02	0.00E+00	1.53E+02
Sb-125	<8.71E+01	0.00E+00	8.71E+01

Sample ID: 439939 **Sample Dates: 4/10/2017 - 4/10/2017** **FREESWIM**

Nuclide	Activity	2 Sigma Error	MDA
Mn-54	<3.64E+01	0.00E+00	3.64E+01
Co-58	<4.05E+01	0.00E+00	4.05E+01
Fe-59	<6.31E+01	0.00E+00	6.31E+01
Co-60	<2.96E+01	0.00E+00	2.96E+01
Zn-65	<6.59E+01	0.00E+00	6.59E+01
Nb-95	<3.15E+01	0.00E+00	3.15E+01
I-131	<4.59E+01	0.00E+00	4.59E+01
Cs-134	<4.36E+01	0.00E+00	4.36E+01
Cs-137	<3.74E+01	0.00E+00	3.74E+01
Be-7	<1.98E+02	0.00E+00	1.98E+02
K-40	2.51E+03	6.92E+02	4.08E+02
Ag-110M	<2.58E+01	0.00E+00	2.58E+01
Sb-122	<2.41E+02	0.00E+00	2.41E+02
Sb-125	<7.18E+01	0.00E+00	7.18E+01

Sample ID: 439940 **Sample Dates: 4/10/2017 - 4/10/2017** **BOTMFEEDER**

Nuclide	Activity	2 Sigma Error	MDA
Mn-54	<2.77E+01	0.00E+00	2.77E+01
Co-58	<4.04E+01	0.00E+00	4.04E+01
Fe-59	<1.98E+01	0.00E+00	1.98E+01
Co-60	<4.03E+01	0.00E+00	4.03E+01
Zn-65	<1.00E+02	0.00E+00	1.00E+02
Nb-95	<3.78E+01	0.00E+00	3.78E+01
I-131	<4.62E+01	0.00E+00	4.62E+01
Cs-134	<4.35E+01	0.00E+00	4.35E+01

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

Sample Point 137 [CONTROL - N @ 12 miles]

Sample ID:	439940	Sample Dates: 4/10/2017 - 4/10/2017	BOTMFEEDER	Nuclide	Activity	2 Sigma Error	MDA
				Cs-137	<4.75E+01	0.00E+00	4.75E+01
				Be-7	<2.38E+02	0.00E+00	2.38E+02
				K-40	3.50E+03	8.73E+02	5.44E+02
				Ag-110M	<3.09E+01	0.00E+00	3.09E+01
				Sb-122	<2.41E+02	0.00E+00	2.41E+02
				Sb-125	<9.84E+01	0.00E+00	9.84E+01
Sample ID:	455017	Sample Dates: 10/2/2017 - 10/2/2017	FREESWIM	Nuclide	Activity	2 Sigma Error	MDA
				Mn-54	<4.32E+01	0.00E+00	4.32E+01
				Co-58	<4.81E+01	0.00E+00	4.81E+01
				Fe-59	<8.66E+01	0.00E+00	8.66E+01
				Co-60	<3.52E+01	0.00E+00	3.52E+01
				Zn-65	<9.07E+01	0.00E+00	9.07E+01
				Nb-95	<3.22E+01	0.00E+00	3.22E+01
				I-131	<6.56E+01	0.00E+00	6.56E+01
				Cs-134	<3.96E+01	0.00E+00	3.96E+01
				Cs-137	<5.93E+01	0.00E+00	5.93E+01
				Be-7	<2.61E+02	0.00E+00	2.61E+02
				K-40	3.29E+03	9.13E+02	7.12E+02
				Ag-110M	<4.51E+01	0.00E+00	4.51E+01
				Sb-122	<2.52E+02	0.00E+00	2.52E+02
				Sb-125	<7.76E+01	0.00E+00	7.76E+01
Sample ID:	455018	Sample Dates: 10/2/2017 - 10/2/2017	BOTMFEEDER	Nuclide	Activity	2 Sigma Error	MDA
				Mn-54	<5.49E+01	0.00E+00	5.49E+01
				Co-58	<4.07E+01	0.00E+00	4.07E+01
				Fe-59	<1.07E+02	0.00E+00	1.07E+02
				Co-60	<1.44E+01	0.00E+00	1.44E+01
				Zn-65	<8.70E+01	0.00E+00	8.70E+01
				Nb-95	<3.57E+01	0.00E+00	3.57E+01
				I-131	<5.95E+01	0.00E+00	5.95E+01
				Cs-134	<4.39E+01	0.00E+00	4.39E+01
				Cs-137	<4.93E+01	0.00E+00	4.93E+01
				Be-7	<3.17E+02	0.00E+00	3.17E+02
				K-40	3.74E+03	9.45E+02	1.45E+02
				Ag-110M	<4.14E+01	0.00E+00	4.14E+01
				Sb-122	<2.98E+02	0.00E+00	2.98E+02
				Sb-125	<9.49E+01	0.00E+00	9.49E+01
Sample ID:	455019	Sample Dates: 10/2/2017 - 10/2/2017	FREESWIM	Nuclide	Activity	2 Sigma Error	MDA
				Mn-54	<5.29E+01	0.00E+00	5.29E+01
				Co-58	<4.90E+01	0.00E+00	4.90E+01
				Fe-59	<9.97E+01	0.00E+00	9.97E+01
				Co-60	<1.73E+01	0.00E+00	1.73E+01
				Zn-65	<1.47E+02	0.00E+00	1.47E+02
				Nb-95	<4.99E+01	0.00E+00	4.99E+01
				I-131	<9.08E+01	0.00E+00	9.08E+01
				Cs-134	<6.92E+01	0.00E+00	6.92E+01
				Cs-137	<5.52E+01	0.00E+00	5.52E+01
				Be-7	<3.12E+02	0.00E+00	3.12E+02
				K-40	3.06E+03	9.84E+02	7.44E+02
				Ag-110M	<6.33E+01	0.00E+00	6.33E+01
				Sb-122	<2.73E+02	0.00E+00	2.73E+02
				Sb-125	<1.50E+02	0.00E+00	1.50E+02

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

Sample Point 141 [CONTROL - WNW @ 14.8 miles]

Sample ID:	432933	Sample Dates: 1/9/2017 - 1/9/2017	Nuclide	Activity	2 Sigma Error	MDA
			LLI-131	<6.24E-01	0.00E+00	6.24E-01
			I-131	<6.47E+00	0.00E+00	6.47E+00
			Cs-134	<5.64E+00	0.00E+00	5.64E+00
			Cs-137	<7.73E+00	0.00E+00	7.73E+00
			BaLa-140	<5.85E+00	0.00E+00	5.85E+00
			Be-7	<7.09E+01	0.00E+00	7.09E+01
			K-40	1.38E+03	2.18E+02	1.73E+01

MCGUIRE Radiological Environmental Monitoring Analysis Report - 2017 (Appendix E)

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

Sample Point 141 [CONTROL - WNW @ 14.8 miles]

Sample ID: 433748 **Sample Dates: 1/23/2017 - 1/23/2017**

Nuclide	Activity	2 Sigma Error	MDA
LLI-131	<6.46E-01	0.00E+00	6.46E-01
I-131	<5.83E+00	0.00E+00	5.83E+00
Cs-134	<7.39E+00	0.00E+00	7.39E+00
Cs-137	<6.54E+00	0.00E+00	6.54E+00
BaLa-140	<7.09E+00	0.00E+00	7.09E+00
Be-7	<4.59E+01	0.00E+00	4.59E+01
K-40	1.44E+03	2.27E+02	7.85E+01

Sample ID: 435134 **Sample Dates: 2/6/2017 - 2/6/2017**

Nuclide	Activity	2 Sigma Error	MDA
LLI-131	<5.48E-01	0.00E+00	5.48E-01
I-131	<5.57E+00	0.00E+00	5.57E+00
Cs-134	<5.90E+00	0.00E+00	5.90E+00
Cs-137	<7.71E+00	0.00E+00	7.71E+00
BaLa-140	<7.34E+00	0.00E+00	7.34E+00
Be-7	<5.08E+01	0.00E+00	5.08E+01
K-40	1.47E+03	2.32E+02	8.21E+01

Sample ID: 436287 **Sample Dates: 2/20/2017 - 2/20/2017**

Nuclide	Activity	2 Sigma Error	MDA
LLI-131	<6.46E-01	0.00E+00	6.46E-01
I-131	<4.73E+00	0.00E+00	4.73E+00
Cs-134	<8.73E+00	0.00E+00	8.73E+00
Cs-137	<8.73E+00	0.00E+00	8.73E+00
BaLa-140	<5.63E+00	0.00E+00	5.63E+00
Be-7	<5.09E+01	0.00E+00	5.09E+01
K-40	1.58E+03	2.44E+02	1.10E+02

Sample ID: 437609 **Sample Dates: 3/6/2017 - 3/6/2017**

Nuclide	Activity	2 Sigma Error	MDA
LLI-131	<5.58E-01	0.00E+00	5.58E-01
I-131	<6.35E+00	0.00E+00	6.35E+00
Cs-134	<7.87E+00	0.00E+00	7.87E+00
Cs-137	<5.57E+00	0.00E+00	5.57E+00
BaLa-140	<7.13E+00	0.00E+00	7.13E+00
Be-7	<5.09E+01	0.00E+00	5.09E+01
K-40	1.50E+03	2.38E+02	1.22E+02

Sample ID: 438832 **Sample Dates: 3/20/2017 - 3/20/2017**

Nuclide	Activity	2 Sigma Error	MDA
LLI-131	<5.81E-01	0.00E+00	5.81E-01
I-131	<6.83E+00	0.00E+00	6.83E+00
Cs-134	<9.46E+00	0.00E+00	9.46E+00
Cs-137	<9.44E+00	0.00E+00	9.44E+00
BaLa-140	<8.01E+00	0.00E+00	8.01E+00
Be-7	<6.72E+01	0.00E+00	6.72E+01
K-40	1.33E+03	2.23E+02	8.69E+01

Sample ID: 440036 **Sample Dates: 4/3/2017 - 4/3/2017**

Nuclide	Activity	2 Sigma Error	MDA
LLI-131	<6.46E-01	0.00E+00	6.46E-01
I-131	<5.33E+00	0.00E+00	5.33E+00
Cs-134	<9.14E+00	0.00E+00	9.14E+00
Cs-137	<9.77E+00	0.00E+00	9.77E+00
BaLa-140	<7.69E+00	0.00E+00	7.69E+00
Be-7	<5.39E+01	0.00E+00	5.39E+01
K-40	1.40E+03	2.22E+02	1.79E+01

Sample ID: 441440 **Sample Dates: 4/17/2017 - 4/17/2017**

Nuclide	Activity	2 Sigma Error	MDA
LLI-131	<6.37E-01	0.00E+00	6.37E-01
I-131	<7.10E+00	0.00E+00	7.10E+00
Cs-134	<9.55E+00	0.00E+00	9.55E+00
Cs-137	<8.81E+00	0.00E+00	8.81E+00
BaLa-140	<5.84E+00	0.00E+00	5.84E+00
Be-7	<5.34E+01	0.00E+00	5.34E+01
K-40	1.41E+03	2.23E+02	1.79E+01

Sample ID: 442347 **Sample Dates: 5/1/2017 - 5/1/2017**

Nuclide	Activity	2 Sigma Error	MDA
LLI-131	<5.70E-01	0.00E+00	5.70E-01
I-131	<7.99E+00	0.00E+00	7.99E+00
Cs-134	<1.07E+01	0.00E+00	1.07E+01
Cs-137	<8.36E+00	0.00E+00	8.36E+00
BaLa-140	<9.19E+00	0.00E+00	9.19E+00
Be-7	<5.29E+01	0.00E+00	5.29E+01

MCGUIRE Radiological Environmental Monitoring Analysis Report - 2017 (Appendix E)

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

Sample Point 141 [CONTROL - WNW @ 14.8 miles]

Sample ID: 442347 **Sample Dates: 5/1/2017 - 5/1/2017**

Nuclide	Activity	2 Sigma Error	MDA
K-40	1.62E+03	2.47E+02	1.86E+01

Sample ID: 443333 **Sample Dates: 5/15/2017 - 5/15/2017**

Nuclide	Activity	2 Sigma Error	MDA
LLI-131	<5.48E-01	0.00E+00	5.48E-01
I-131	<7.39E+00	0.00E+00	7.39E+00
Cs-134	<9.01E+00	0.00E+00	9.01E+00
Cs-137	<8.36E+00	0.00E+00	8.36E+00
BaLa-140	<8.02E+00	0.00E+00	8.02E+00
Be-7	<6.06E+01	0.00E+00	6.06E+01
K-40	1.57E+03	2.45E+02	7.97E+01

Sample ID: 444292 **Sample Dates: 5/30/2017 - 5/30/2017**

Nuclide	Activity	2 Sigma Error	MDA
LLI-131	<5.93E-01	0.00E+00	5.93E-01
I-131	<5.60E+00	0.00E+00	5.60E+00
Cs-134	<6.87E+00	0.00E+00	6.87E+00
Cs-137	<6.96E+00	0.00E+00	6.96E+00
BaLa-140	<9.20E+00	0.00E+00	9.20E+00
Be-7	<5.09E+01	0.00E+00	5.09E+01
K-40	1.29E+03	2.16E+02	1.09E+02

Sample ID: 446354 **Sample Dates: 6/12/2017 - 6/12/2017**

Nuclide	Activity	2 Sigma Error	MDA
LLI-131	<4.81E-01	0.00E+00	4.81E-01
I-131	<7.32E+00	0.00E+00	7.32E+00
Cs-134	<8.31E+00	0.00E+00	8.31E+00
Cs-137	<6.96E+00	0.00E+00	6.96E+00
BaLa-140	<2.06E+00	0.00E+00	2.06E+00
Be-7	<5.54E+01	0.00E+00	5.54E+01
K-40	1.55E+03	2.45E+02	1.30E+02

Sample ID: 447220 **Sample Dates: 6/26/2017 - 6/26/2017**

Nuclide	Activity	2 Sigma Error	MDA
LLI-131	<6.34E-01	0.00E+00	6.34E-01
I-131	<6.53E+00	0.00E+00	6.53E+00
Cs-134	<9.28E+00	0.00E+00	9.28E+00
Cs-137	<5.57E+00	0.00E+00	5.57E+00
BaLa-140	<9.16E+00	0.00E+00	9.16E+00
Be-7	<5.12E+01	0.00E+00	5.12E+01
K-40	1.32E+03	2.23E+02	8.81E+01

Sample ID: 448304 **Sample Dates: 7/10/2017 - 7/10/2017**

Nuclide	Activity	2 Sigma Error	MDA
LLI-131	<5.39E-01	0.00E+00	5.39E-01
I-131	<5.88E+00	0.00E+00	5.88E+00
Cs-134	<8.79E+00	0.00E+00	8.79E+00
Cs-137	<6.91E+00	0.00E+00	6.91E+00
BaLa-140	<8.73E+00	0.00E+00	8.73E+00
Be-7	<4.54E+01	0.00E+00	4.54E+01
K-40	1.60E+03	2.48E+02	8.22E+01

Sample ID: 449249 **Sample Dates: 7/24/2017 - 7/24/2017**

Nuclide	Activity	2 Sigma Error	MDA
LLI-131	<6.25E-01	0.00E+00	6.25E-01
I-131	<5.55E+00	0.00E+00	5.55E+00
Cs-134	<8.70E+00	0.00E+00	8.70E+00
Cs-137	<6.85E+00	0.00E+00	6.85E+00
BaLa-140	<7.32E+00	0.00E+00	7.32E+00
Be-7	<5.33E+01	0.00E+00	5.33E+01
K-40	1.52E+03	2.38E+02	9.38E+01

Sample ID: 450236 **Sample Dates: 8/7/2017 - 8/7/2017**

Nuclide	Activity	2 Sigma Error	MDA
LLI-131	<5.99E-01	0.00E+00	5.99E-01
I-131	<6.68E+00	0.00E+00	6.68E+00
Cs-134	<8.15E+00	0.00E+00	8.15E+00
Cs-137	<7.61E+00	0.00E+00	7.61E+00
BaLa-140	<2.21E+00	0.00E+00	2.21E+00
Be-7	<5.54E+01	0.00E+00	5.54E+01
K-40	1.40E+03	2.25E+02	8.87E+01

Sample ID: 451217 **Sample Dates: 8/21/2017 - 8/21/2017**

Nuclide	Activity	2 Sigma Error	MDA
LLI-131	<6.17E-01	0.00E+00	6.17E-01
I-131	<6.51E+00	0.00E+00	6.51E+00
Cs-134	<6.87E+00	0.00E+00	6.87E+00

MCGUIRE Radiological Environmental Monitoring Analysis Report - 2017 (Appendix E)

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

Sample Point 141 [CONTROL - WNW @ 14.8 miles]

Sample ID: 451217 **Sample Dates: 8/21/2017 - 8/21/2017**

Nuclide	Activity	2 Sigma Error	MDA
Cs-137	<7.36E+00	0.00E+00	7.36E+00
BaLa-140	<2.06E+00	0.00E+00	2.06E+00
Be-7	<6.33E+01	0.00E+00	6.33E+01
K-40	1.59E+03	2.42E+02	8.42E+01

Sample ID: 452389 **Sample Dates: 9/5/2017 - 9/5/2017**

Nuclide	Activity	2 Sigma Error	MDA
LLI-131	<5.93E-01	0.00E+00	5.93E-01
I-131	<6.99E+00	0.00E+00	6.99E+00
Cs-134	<6.88E+00	0.00E+00	6.88E+00
Cs-137	<7.73E+00	0.00E+00	7.73E+00
BaLa-140	<9.58E+00	0.00E+00	9.58E+00
Be-7	<5.60E+01	0.00E+00	5.60E+01
K-40	1.32E+03	2.26E+02	1.47E+02

Sample ID: 453472 **Sample Dates: 9/18/2017 - 9/18/2017**

Nuclide	Activity	2 Sigma Error	MDA
LLI-131	<5.78E-01	0.00E+00	5.78E-01
I-131	<5.35E+00	0.00E+00	5.35E+00
Cs-134	<6.87E+00	0.00E+00	6.87E+00
Cs-137	<8.41E+00	0.00E+00	8.41E+00
BaLa-140	<7.12E+00	0.00E+00	7.12E+00
Be-7	<4.59E+01	0.00E+00	4.59E+01
K-40	1.32E+03	2.22E+02	1.26E+02

Sample ID: 455104 **Sample Dates: 10/2/2017 - 10/2/2017**

Nuclide	Activity	2 Sigma Error	MDA
LLI-131	<6.38E-01	0.00E+00	6.38E-01
I-131	<6.35E+00	0.00E+00	6.35E+00
Cs-134	<6.87E+00	0.00E+00	6.87E+00
Cs-137	<8.41E+00	0.00E+00	8.41E+00
BaLa-140	<5.65E+00	0.00E+00	5.65E+00
Be-7	<4.59E+01	0.00E+00	4.59E+01
K-40	1.30E+03	2.23E+02	1.37E+02

Sample ID: 456070 **Sample Dates: 10/16/2017 - 10/16/2017**

Nuclide	Activity	2 Sigma Error	MDA
LLI-131	<6.43E-01	0.00E+00	6.43E-01
I-131	<5.97E+00	0.00E+00	5.97E+00
Cs-134	<9.28E+00	0.00E+00	9.28E+00
Cs-137	<1.01E+01	0.00E+00	1.01E+01
BaLa-140	<2.31E+00	0.00E+00	2.31E+00
Be-7	<5.41E+01	0.00E+00	5.41E+01
K-40	1.23E+03	2.14E+02	8.24E+01

Sample ID: 461992 **Sample Dates: 10/30/2017 - 10/30/2017**

Nuclide	Activity	2 Sigma Error	MDA
LLI-131	<6.39E-01	0.00E+00	6.39E-01
I-131	<7.56E+00	0.00E+00	7.56E+00
Cs-134	<6.52E+00	0.00E+00	6.52E+00
Cs-137	<7.61E+00	0.00E+00	7.61E+00
BaLa-140	<2.24E+00	0.00E+00	2.24E+00
Be-7	<4.18E+01	0.00E+00	4.18E+01
K-40	1.37E+03	2.22E+02	8.67E+01

Sample ID: 463120 **Sample Dates: 11/13/2017 - 11/13/2017**

Nuclide	Activity	2 Sigma Error	MDA
LLI-131	<6.48E-01	0.00E+00	6.48E-01
I-131	<6.14E+00	0.00E+00	6.14E+00
Cs-134	<6.11E+00	0.00E+00	6.11E+00
Cs-137	<7.53E+00	0.00E+00	7.53E+00
BaLa-140	<6.30E+00	0.00E+00	6.30E+00
Be-7	<7.11E+01	0.00E+00	7.11E+01
K-40	1.31E+03	2.30E+02	1.48E+02

Sample ID: 464171 **Sample Dates: 11/27/2017 - 11/27/2017**

Nuclide	Activity	2 Sigma Error	MDA
LLI-131	<5.24E-01	0.00E+00	5.24E-01
I-131	<6.26E+00	0.00E+00	6.26E+00
Cs-134	<6.51E+00	0.00E+00	6.51E+00
Cs-137	<7.61E+00	0.00E+00	7.61E+00
BaLa-140	<7.28E+00	0.00E+00	7.28E+00
Be-7	<5.25E+01	0.00E+00	5.25E+01
K-40	1.42E+03	2.30E+02	1.08E+02

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

Sample Point 141 [CONTROL - WNW @ 14.8 miles]

Sample ID: 464994 **Sample Dates: 12/11/2017 - 12/11/2017**

Nuclide	Activity	2 Sigma Error	MDA
LLI-131	<5.23E-01	0.00E+00	5.23E-01
I-131	<7.41E+00	0.00E+00	7.41E+00
Cs-134	<8.61E+00	0.00E+00	8.61E+00
Cs-137	<8.70E+00	0.00E+00	8.70E+00
BaLa-140	<6.01E+00	0.00E+00	6.01E+00
Be-7	<5.30E+01	0.00E+00	5.30E+01
K-40	1.46E+03	2.32E+02	8.71E+01

Sample ID: 465645 **Sample Dates: 12/26/2017 - 12/26/2017**

Nuclide	Activity	2 Sigma Error	MDA
LLI-131	<5.70E-01	0.00E+00	5.70E-01
I-131	<5.90E+00	0.00E+00	5.90E+00
Cs-134	<6.52E+00	0.00E+00	6.52E+00
Cs-137	<6.76E+00	0.00E+00	6.76E+00
BaLa-140	<6.05E+00	0.00E+00	6.05E+00
Be-7	<5.05E+01	0.00E+00	5.05E+01
K-40	1.41E+03	2.31E+02	1.16E+02

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

Sample Point 129 [INDICATOR - ENE @ 0.51 miles]

Sample ID: 437610 **Sample Dates: 4/3/2017 - 4/3/2017**

Nuclide	Activity	2 Sigma Error	MDA
Mn-54	<1.53E+01	0.00E+00	1.53E+01
Co-58	<1.48E+01	0.00E+00	1.48E+01
Fe-59	<3.40E+01	0.00E+00	3.40E+01
Co-60	<1.77E+01	0.00E+00	1.77E+01
Zn-65	<2.91E+01	0.00E+00	2.91E+01
Zr-95	<2.12E+01	0.00E+00	2.12E+01
Nb-95	<1.33E+01	0.00E+00	1.33E+01
I-131	<1.33E+01	0.00E+00	1.33E+01
Cs-134	<1.78E+01	0.00E+00	1.78E+01
Cs-137	<1.25E+01	0.00E+00	1.25E+01
Be-7	<1.24E+02	0.00E+00	1.24E+02
K-40	2.26E+03	3.78E+02	3.21E+01
Co-57	<1.11E+01	0.00E+00	1.11E+01
Mo-99	<2.27E+02	0.00E+00	2.27E+02
Ag-110M	<1.32E+01	0.00E+00	1.32E+01
Sb-122	<3.81E+01	0.00E+00	3.81E+01
Sb-125	<3.71E+01	0.00E+00	3.71E+01

Sample ID: 452390 **Sample Dates: 10/3/2017 - 10/3/2017**

Nuclide	Activity	2 Sigma Error	MDA
Mn-54	<2.22E+01	0.00E+00	2.22E+01
Co-58	<1.73E+01	0.00E+00	1.73E+01
Fe-59	<4.03E+01	0.00E+00	4.03E+01
Co-60	<1.03E+01	0.00E+00	1.03E+01
Zn-65	<3.90E+01	0.00E+00	3.90E+01
Zr-95	<3.67E+01	0.00E+00	3.67E+01
Nb-95	<1.81E+01	0.00E+00	1.81E+01
I-131	<2.78E+01	0.00E+00	2.78E+01
Cs-134	<2.84E+01	0.00E+00	2.84E+01
Cs-137	<1.75E+01	0.00E+00	1.75E+01
Be-7	<1.67E+02	0.00E+00	1.67E+02
K-40	5.38E+03	7.19E+02	2.59E+02
Co-57	<1.53E+01	0.00E+00	1.53E+01
Mo-99	<5.09E+02	0.00E+00	5.09E+02
Ag-110M	<1.51E+01	0.00E+00	1.51E+01
Sb-122	<9.23E+01	0.00E+00	9.23E+01
Sb-125	<4.68E+01	0.00E+00	4.68E+01

Sample Point 130 [INDICATOR - SW @ 0.52 miles]

Sample ID: 437611 **Sample Dates: 4/3/2017 - 4/3/2017**

Nuclide	Activity	2 Sigma Error	MDA
Mn-54	<5.19E+01	0.00E+00	5.19E+01
Co-58	<3.04E+01	0.00E+00	3.04E+01
Fe-59	<6.42E+01	0.00E+00	6.42E+01
Co-60	<2.84E+01	0.00E+00	2.84E+01
Zn-65	<8.45E+01	0.00E+00	8.45E+01
Zr-95	<6.14E+01	0.00E+00	6.14E+01
Nb-95	<4.00E+01	0.00E+00	4.00E+01

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

Sample Point 130 [INDICATOR - SW @ 0.52 miles]

Sample ID: 437611 **Sample Dates: 4/3/2017 - 4/3/2017**

Nuclide	Activity	2 Sigma Error	MDA
I-131	<3.76E+01	0.00E+00	3.76E+01
Cs-134	<5.72E+01	0.00E+00	5.72E+01
Cs-137	5.89E+01	3.84E+01	5.89E+01
Be-7	<3.02E+02	0.00E+00	3.02E+02
K-40	1.40E+04	1.60E+03	7.04E+02
Co-57	<2.80E+01	0.00E+00	2.80E+01
Mo-99	<6.35E+02	0.00E+00	6.35E+02
Ag-110M	<3.80E+01	0.00E+00	3.80E+01
Sb-122	<1.33E+02	0.00E+00	1.33E+02
Sb-125	<9.49E+01	0.00E+00	9.49E+01

Sample ID: 452391 **Sample Dates: 10/3/2017 - 10/3/2017**

Nuclide	Activity	2 Sigma Error	MDA
Mn-54	<3.51E+01	0.00E+00	3.51E+01
Co-58	<2.73E+01	0.00E+00	2.73E+01
Fe-59	<6.75E+01	0.00E+00	6.75E+01
Co-60	<3.10E+01	0.00E+00	3.10E+01
Zn-65	<5.82E+01	0.00E+00	5.82E+01
Zr-95	<5.22E+01	0.00E+00	5.22E+01
Nb-95	<3.32E+01	0.00E+00	3.32E+01
I-131	<4.03E+01	0.00E+00	4.03E+01
Cs-134	<5.05E+01	0.00E+00	5.05E+01
Cs-137	3.84E+01	2.67E+01	4.11E+01
Be-7	5.78E+01	2.68E+02	4.56E+02
K-40	1.53E+04	1.59E+03	3.72E+02
Co-57	<2.47E+01	0.00E+00	2.47E+01
Mo-99	<9.62E+02	0.00E+00	9.62E+02
Ag-110M	<2.30E+01	0.00E+00	2.30E+01
Sb-122	<1.38E+02	0.00E+00	1.38E+02
Sb-125	<5.97E+01	0.00E+00	5.97E+01

Sample Point 137 [CONTROL - N @ 12 miles]

Sample ID: 437612 **Sample Dates: 4/3/2017 - 4/3/2017**

Nuclide	Activity	2 Sigma Error	MDA
Mn-54	<2.25E+01	0.00E+00	2.25E+01
Co-58	<1.87E+01	0.00E+00	1.87E+01
Fe-59	<5.46E+01	0.00E+00	5.46E+01
Co-60	<2.26E+01	0.00E+00	2.26E+01
Zn-65	<6.57E+01	0.00E+00	6.57E+01
Zr-95	<4.13E+01	0.00E+00	4.13E+01
Nb-95	<2.25E+01	0.00E+00	2.25E+01
I-131	<2.00E+01	0.00E+00	2.00E+01
Cs-134	<3.16E+01	0.00E+00	3.16E+01
Cs-137	<2.21E+01	0.00E+00	2.21E+01
Be-7	<1.82E+02	0.00E+00	1.82E+02
K-40	1.98E+04	1.90E+03	2.81E+02
Co-57	<1.72E+01	0.00E+00	1.72E+01
Mo-99	<3.47E+02	0.00E+00	3.47E+02
Ag-110M	<2.18E+01	0.00E+00	2.18E+01
Sb-122	<4.08E+01	0.00E+00	4.08E+01
Sb-125	<5.15E+01	0.00E+00	5.15E+01

Sample ID: 452392 **Sample Dates: 10/2/2017 - 10/2/2017**

Nuclide	Activity	2 Sigma Error	MDA
Mn-54	<2.31E+01	0.00E+00	2.31E+01
Co-58	<2.23E+01	0.00E+00	2.23E+01
Fe-59	<5.14E+01	0.00E+00	5.14E+01
Co-60	<2.73E+01	0.00E+00	2.73E+01
Zn-65	<6.96E+01	0.00E+00	6.96E+01
Zr-95	<4.16E+01	0.00E+00	4.16E+01
Nb-95	<2.62E+01	0.00E+00	2.62E+01
I-131	<2.17E+01	0.00E+00	2.17E+01
Cs-134	<2.81E+01	0.00E+00	2.81E+01
Cs-137	<2.35E+01	0.00E+00	2.35E+01
Be-7	<1.67E+02	0.00E+00	1.67E+02
K-40	2.36E+04	2.24E+03	2.83E+02
Co-57	<1.72E+01	0.00E+00	1.72E+01
Mo-99	<3.22E+02	0.00E+00	3.22E+02
Ag-110M	<1.99E+01	0.00E+00	1.99E+01
Sb-122	<6.41E+01	0.00E+00	6.41E+01

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

Sample Point 137 [CONTROL - N @ 12 miles]

Sample ID:	452392	Sample Dates: 10/2/2017 - 10/2/2017	Nuclide	Activity	2 Sigma Error	MDA
			Sb-125	<5.08E+01	0.00E+00	5.08E+01

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

Sample Point 128 [INDICATOR - NE @ 0.45 miles]

Sample ID:	432237	Sample Dates: 12/5/2016 - 1/3/2017	Nuclide	Activity	2 Sigma Error	MDA
			Mn-54	<2.79E+00	0.00E+00	2.79E+00
			Co-58	<2.86E+00	0.00E+00	2.86E+00
			Fe-59	<6.52E+00	0.00E+00	6.52E+00
			Co-60	<3.00E+00	0.00E+00	3.00E+00
			Zn-65	<3.41E+00	0.00E+00	3.41E+00
			Zr-95	<6.84E+00	0.00E+00	6.84E+00
			Nb-95	<4.02E+00	0.00E+00	4.02E+00
			I-131	<1.13E+01	0.00E+00	1.13E+01
			Cs-134	<3.21E+00	0.00E+00	3.21E+00
			Cs-137	<2.51E+00	0.00E+00	2.51E+00
			BaLa-140	<8.08E+00	0.00E+00	8.08E+00
			Be-7	<2.66E+01	0.00E+00	2.66E+01
			K-40	3.01E+01	2.67E+01	4.10E+01
Sample ID:	434486	Sample Dates: 1/3/2017 - 1/30/2017	Nuclide	Activity	2 Sigma Error	MDA
			Mn-54	<3.65E+00	0.00E+00	3.65E+00
			Co-58	<4.01E+00	0.00E+00	4.01E+00
			Fe-59	<8.39E+00	0.00E+00	8.39E+00
			Co-60	<3.68E+00	0.00E+00	3.68E+00
			Zn-65	<6.75E+00	0.00E+00	6.75E+00
			Zr-95	<7.34E+00	0.00E+00	7.34E+00
			Nb-95	<3.74E+00	0.00E+00	3.74E+00
			I-131	<1.15E+01	0.00E+00	1.15E+01
			Cs-134	<3.04E+00	0.00E+00	3.04E+00
			Cs-137	<3.28E+00	0.00E+00	3.28E+00
			BaLa-140	<1.00E+01	0.00E+00	1.00E+01
			Be-7	<3.80E+01	0.00E+00	3.80E+01
			K-40	<5.96E+01	0.00E+00	5.96E+01
Sample ID:	434742	Sample Dates: 12/5/2016 - 2/27/2017	Nuclide	Activity	2 Sigma Error	MDA
			H3SW	9.12E+02	1.34E+02	1.89E+02
Sample ID:	436741	Sample Dates: 1/30/2017 - 2/27/2017	Nuclide	Activity	2 Sigma Error	MDA
			Mn-54	<3.61E+00	0.00E+00	3.61E+00
			Co-58	<3.43E+00	0.00E+00	3.43E+00
			Fe-59	<8.59E+00	0.00E+00	8.59E+00
			Co-60	<3.00E+00	0.00E+00	3.00E+00
			Zn-65	<6.71E+00	0.00E+00	6.71E+00
			Zr-95	<6.42E+00	0.00E+00	6.42E+00
			Nb-95	<4.23E+00	0.00E+00	4.23E+00
			I-131	<1.17E+01	0.00E+00	1.17E+01
			Cs-134	<5.04E+00	0.00E+00	5.04E+00
			Cs-137	<3.50E+00	0.00E+00	3.50E+00
			BaLa-140	<1.10E+01	0.00E+00	1.10E+01
			Be-7	<3.11E+01	0.00E+00	3.11E+01
			K-40	2.77E+01	2.81E+01	4.36E+01
Sample ID:	439206	Sample Dates: 2/27/2017 - 3/27/2017	Nuclide	Activity	2 Sigma Error	MDA
			Mn-54	<4.51E+00	0.00E+00	4.51E+00
			Co-58	<3.75E+00	0.00E+00	3.75E+00
			Fe-59	<9.57E+00	0.00E+00	9.57E+00
			Co-60	<4.17E+00	0.00E+00	4.17E+00
			Zn-65	<7.67E+00	0.00E+00	7.67E+00
			Zr-95	<8.44E+00	0.00E+00	8.44E+00
			Nb-95	<6.97E+00	0.00E+00	6.97E+00
			I-131	<1.18E+01	0.00E+00	1.18E+01
			Cs-134	<4.56E+00	0.00E+00	4.56E+00
			Cs-137	<4.55E+00	0.00E+00	4.55E+00
			BaLa-140	<6.76E+00	0.00E+00	6.76E+00
			Be-7	<4.27E+01	0.00E+00	4.27E+01
			K-40	4.80E+01	4.16E+01	6.29E+01

MCGUIRE Radiological Environmental Monitoring Analysis Report - 2017 (Appendix E)

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

Sample Point 128 [INDICATOR - NE @ 0.45 miles]

Sample ID: 441887 **Sample Dates: 3/27/2017 - 4/24/2017**

Nuclide	Activity	2 Sigma Error	MDA
Mn-54	<2.65E+00	0.00E+00	2.65E+00
Co-58	<3.76E+00	0.00E+00	3.76E+00
Fe-59	<6.61E+00	0.00E+00	6.61E+00
Co-60	<2.87E+00	0.00E+00	2.87E+00
Zn-65	<7.05E+00	0.00E+00	7.05E+00
Zr-95	<5.74E+00	0.00E+00	5.74E+00
Nb-95	<3.63E+00	0.00E+00	3.63E+00
I-131	<1.15E+01	0.00E+00	1.15E+01
Cs-134	<4.22E+00	0.00E+00	4.22E+00
Cs-137	<3.05E+00	0.00E+00	3.05E+00
BaLa-140	<8.00E+00	0.00E+00	8.00E+00
Be-7	<2.75E+01	0.00E+00	2.75E+01
K-40	5.89E+01	3.47E+01	4.93E+01

Sample ID: 442348 **Sample Dates: 2/27/2017 - 5/22/2017**

Nuclide	Activity	2 Sigma Error	MDA
H3SW	2.11E+03	1.72E+02	1.98E+02

Sample ID: 443883 **Sample Dates: 4/24/2017 - 5/22/2017**

Nuclide	Activity	2 Sigma Error	MDA
Mn-54	<2.89E+00	0.00E+00	2.89E+00
Co-58	<2.99E+00	0.00E+00	2.99E+00
Fe-59	<6.84E+00	0.00E+00	6.84E+00
Co-60	<3.31E+00	0.00E+00	3.31E+00
Zn-65	<6.10E+00	0.00E+00	6.10E+00
Zr-95	<5.50E+00	0.00E+00	5.50E+00
Nb-95	<4.25E+00	0.00E+00	4.25E+00
I-131	<9.78E+00	0.00E+00	9.78E+00
Cs-134	<3.69E+00	0.00E+00	3.69E+00
Cs-137	<2.89E+00	0.00E+00	2.89E+00
BaLa-140	<6.61E+00	0.00E+00	6.61E+00
Be-7	<2.66E+01	0.00E+00	2.66E+01
K-40	<4.64E+01	0.00E+00	4.64E+01

Sample ID: 446850 **Sample Dates: 5/22/2017 - 6/19/2017**

Nuclide	Activity	2 Sigma Error	MDA
Mn-54	<3.36E+00	0.00E+00	3.36E+00
Co-58	<2.44E+00	0.00E+00	2.44E+00
Fe-59	<1.04E+01	0.00E+00	1.04E+01
Co-60	<3.83E+00	0.00E+00	3.83E+00
Zn-65	<6.32E+00	0.00E+00	6.32E+00
Zr-95	<6.09E+00	0.00E+00	6.09E+00
Nb-95	<4.63E+00	0.00E+00	4.63E+00
I-131	<1.18E+01	0.00E+00	1.18E+01
Cs-134	<2.85E+00	0.00E+00	2.85E+00
Cs-137	<4.19E+00	0.00E+00	4.19E+00
BaLa-140	<2.26E+00	0.00E+00	2.26E+00
Be-7	<3.33E+01	0.00E+00	3.33E+01
K-40	1.08E+01	2.75E+01	4.95E+01

Sample ID: 448918 **Sample Dates: 6/19/2017 - 7/17/2017**

Nuclide	Activity	2 Sigma Error	MDA
Mn-54	<2.85E+00	0.00E+00	2.85E+00
Co-58	<2.60E+00	0.00E+00	2.60E+00
Fe-59	<7.04E+00	0.00E+00	7.04E+00
Co-60	<2.24E+00	0.00E+00	2.24E+00
Zn-65	<8.03E+00	0.00E+00	8.03E+00
Zr-95	<6.83E+00	0.00E+00	6.83E+00
Nb-95	<5.06E+00	0.00E+00	5.06E+00
I-131	<1.14E+01	0.00E+00	1.14E+01
Cs-134	<3.32E+00	0.00E+00	3.32E+00
Cs-137	<3.61E+00	0.00E+00	3.61E+00
BaLa-140	<8.90E+00	0.00E+00	8.90E+00
Be-7	<3.47E+01	0.00E+00	3.47E+01
K-40	8.08E+01	4.09E+01	5.49E+01

Sample ID: 450051 **Sample Dates: 5/22/2017 - 8/14/2017**

Nuclide	Activity	2 Sigma Error	MDA
H3SW	7.00E+02	1.30E+02	1.86E+02

Sample ID: 450751 **Sample Dates: 7/17/2017 - 8/14/2017**

Nuclide	Activity	2 Sigma Error	MDA
Mn-54	<3.63E+00	0.00E+00	3.63E+00
Co-58	<4.25E+00	0.00E+00	4.25E+00

MCGUIRE Radiological Environmental Monitoring Analysis Report - 2017 (Appendix E)

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

Sample Point 128 [INDICATOR - NE @ 0.45 miles]

Sample ID: 450751 **Sample Dates: 7/17/2017 - 8/14/2017**

Nuclide	Activity	2 Sigma Error	MDA
Fe-59	<7.52E+00	0.00E+00	7.52E+00
Co-60	<3.62E+00	0.00E+00	3.62E+00
Zn-65	<7.00E+00	0.00E+00	7.00E+00
Zr-95	<7.15E+00	0.00E+00	7.15E+00
Nb-95	<4.89E+00	0.00E+00	4.89E+00
I-131	<1.20E+01	0.00E+00	1.20E+01
Cs-134	<3.00E+00	0.00E+00	3.00E+00
Cs-137	<3.70E+00	0.00E+00	3.70E+00
BaLa-140	<8.91E+00	0.00E+00	8.91E+00
Be-7	<2.75E+01	0.00E+00	2.75E+01
K-40	9.08E+01	4.22E+01	5.58E+01

Sample ID: 452811 **Sample Dates: 8/14/2017 - 9/11/2017**

Nuclide	Activity	2 Sigma Error	MDA
Mn-54	<2.98E+00	0.00E+00	2.98E+00
Co-58	<3.47E+00	0.00E+00	3.47E+00
Fe-59	<6.81E+00	0.00E+00	6.81E+00
Co-60	<3.35E+00	0.00E+00	3.35E+00
Zn-65	<6.17E+00	0.00E+00	6.17E+00
Zr-95	<5.81E+00	0.00E+00	5.81E+00
Nb-95	<3.54E+00	0.00E+00	3.54E+00
I-131	<1.05E+01	0.00E+00	1.05E+01
Cs-134	<3.66E+00	0.00E+00	3.66E+00
Cs-137	<3.55E+00	0.00E+00	3.55E+00
BaLa-140	<6.08E+00	0.00E+00	6.08E+00
Be-7	<3.12E+01	0.00E+00	3.12E+01
K-40	6.50E+01	3.32E+01	4.48E+01

Sample ID: 455438 **Sample Dates: 9/11/2017 - 10/9/2017**

Nuclide	Activity	2 Sigma Error	MDA
Mn-54	<2.17E+00	0.00E+00	2.17E+00
Co-58	<4.33E+00	0.00E+00	4.33E+00
Fe-59	<9.80E+00	0.00E+00	9.80E+00
Co-60	<3.76E+00	0.00E+00	3.76E+00
Zn-65	<7.56E+00	0.00E+00	7.56E+00
Zr-95	<6.91E+00	0.00E+00	6.91E+00
Nb-95	<4.11E+00	0.00E+00	4.11E+00
I-131	<1.17E+01	0.00E+00	1.17E+01
Cs-134	<4.12E+00	0.00E+00	4.12E+00
Cs-137	<2.72E+00	0.00E+00	2.72E+00
BaLa-140	<1.03E+01	0.00E+00	1.03E+01
Be-7	<3.66E+01	0.00E+00	3.66E+01
K-40	<6.43E+01	0.00E+00	6.43E+01

Sample ID: 462629 **Sample Dates: 10/9/2017 - 11/6/2017**

Nuclide	Activity	2 Sigma Error	MDA
Mn-54	<4.54E+00	0.00E+00	4.54E+00
Co-58	<2.56E+00	0.00E+00	2.56E+00
Fe-59	<7.82E+00	0.00E+00	7.82E+00
Co-60	<3.10E+00	0.00E+00	3.10E+00
Zn-65	<6.61E+00	0.00E+00	6.61E+00
Zr-95	<4.54E+00	0.00E+00	4.54E+00
Nb-95	<4.62E+00	0.00E+00	4.62E+00
I-131	<9.40E+00	0.00E+00	9.40E+00
Cs-134	<7.52E-01	0.00E+00	7.52E-01
Cs-137	<3.43E+00	0.00E+00	3.43E+00
BaLa-140	<9.47E+00	0.00E+00	9.47E+00
Be-7	<3.78E+01	0.00E+00	3.78E+01
K-40	<5.99E+01	0.00E+00	5.99E+01

Sample ID: 462372 **Sample Dates: 8/14/2017 - 12/4/2017**

Nuclide	Activity	2 Sigma Error	MDA
H3SW	1.09E+03	1.43E+02	1.91E+02

Sample ID: 464726 **Sample Dates: 11/6/2017 - 12/4/2017**

Nuclide	Activity	2 Sigma Error	MDA
Mn-54	<4.36E+00	0.00E+00	4.36E+00
Co-58	<4.80E+00	0.00E+00	4.80E+00
Fe-59	<7.00E+00	0.00E+00	7.00E+00
Co-60	<4.37E+00	0.00E+00	4.37E+00
Zn-65	<6.61E+00	0.00E+00	6.61E+00
Zr-95	<8.51E+00	0.00E+00	8.51E+00
Nb-95	<5.34E+00	0.00E+00	5.34E+00

MCGUIRE Radiological Environmental Monitoring Analysis Report - 2017 (Appendix E)

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

Sample Point 128 [INDICATOR - NE @ 0.45 miles]

Sample ID: 464726 **Sample Dates: 11/6/2017 - 12/4/2017**

Nuclide	Activity	2 Sigma Error	MDA
I-131	<1.12E+01	0.00E+00	1.12E+01
Cs-134	<5.41E+00	0.00E+00	5.41E+00
Cs-137	<3.65E+00	0.00E+00	3.65E+00
BaLa-140	<1.14E+01	0.00E+00	1.14E+01
Be-7	<4.12E+01	0.00E+00	4.12E+01
K-40	4.56E+01	3.32E+01	4.52E+01

Sample ID: 466004 **Sample Dates: 12/4/2017 - 1/2/2018**

Nuclide	Activity	2 Sigma Error	MDA
Mn-54	<2.91E+00	0.00E+00	2.91E+00
Co-58	<4.47E+00	0.00E+00	4.47E+00
Fe-59	<6.58E+00	0.00E+00	6.58E+00
Co-60	<4.15E+00	0.00E+00	4.15E+00
Zn-65	<7.17E+00	0.00E+00	7.17E+00
Zr-95	<6.78E+00	0.00E+00	6.78E+00
Nb-95	<4.10E+00	0.00E+00	4.10E+00
I-131	<1.15E+01	0.00E+00	1.15E+01
Cs-134	<3.80E+00	0.00E+00	3.80E+00
Cs-137	<3.88E+00	0.00E+00	3.88E+00
BaLa-140	<1.10E+01	0.00E+00	1.10E+01
Be-7	<3.14E+01	0.00E+00	3.14E+01
K-40	<6.00E+01	0.00E+00	6.00E+01
H3SW	6.55E+02	1.24E+02	1.77E+02

Sample Point 131 [INDICATOR - WNW @ 0.64 miles]

Sample ID: 432238 **Sample Dates: 12/5/2016 - 1/3/2017**

Nuclide	Activity	2 Sigma Error	MDA
Mn-54	<3.47E+00	0.00E+00	3.47E+00
Co-58	<4.88E+00	0.00E+00	4.88E+00
Fe-59	<8.14E+00	0.00E+00	8.14E+00
Co-60	<3.52E+00	0.00E+00	3.52E+00
Zn-65	<5.01E+00	0.00E+00	5.01E+00
Zr-95	<6.46E+00	0.00E+00	6.46E+00
Nb-95	<5.12E+00	0.00E+00	5.12E+00
I-131	<1.20E+01	0.00E+00	1.20E+01
Cs-134	<5.03E+00	0.00E+00	5.03E+00
Cs-137	<3.53E+00	0.00E+00	3.53E+00
BaLa-140	<5.90E+00	0.00E+00	5.90E+00
Be-7	<3.72E+01	0.00E+00	3.72E+01
K-40	3.59E+01	3.21E+01	4.85E+01

Sample ID: 434487 **Sample Dates: 1/3/2017 - 1/30/2017**

Nuclide	Activity	2 Sigma Error	MDA
Mn-54	<3.11E+00	0.00E+00	3.11E+00
Co-58	<2.62E+00	0.00E+00	2.62E+00
Fe-59	<7.36E+00	0.00E+00	7.36E+00
Co-60	<3.02E+00	0.00E+00	3.02E+00
Zn-65	<6.45E+00	0.00E+00	6.45E+00
Zr-95	<5.70E+00	0.00E+00	5.70E+00
Nb-95	<4.01E+00	0.00E+00	4.01E+00
I-131	<1.12E+01	0.00E+00	1.12E+01
Cs-134	<3.74E+00	0.00E+00	3.74E+00
Cs-137	<3.19E+00	0.00E+00	3.19E+00
BaLa-140	<7.36E+00	0.00E+00	7.36E+00
Be-7	<2.72E+01	0.00E+00	2.72E+01
K-40	9.36E+01	3.81E+01	4.75E+01

Sample ID: 434743 **Sample Dates: 12/5/2016 - 2/27/2017**

Nuclide	Activity	2 Sigma Error	MDA
H3SW	4.94E+02	1.23E+02	1.88E+02

Sample ID: 436742 **Sample Dates: 1/30/2017 - 2/27/2017**

Nuclide	Activity	2 Sigma Error	MDA
Mn-54	<4.45E+00	0.00E+00	4.45E+00
Co-58	<4.43E+00	0.00E+00	4.43E+00
Fe-59	<1.17E+01	0.00E+00	1.17E+01
Co-60	<9.69E-01	0.00E+00	9.69E-01
Zn-65	<5.58E+00	0.00E+00	5.58E+00
Zr-95	<7.85E+00	0.00E+00	7.85E+00
Nb-95	<5.22E+00	0.00E+00	5.22E+00
I-131	<1.13E+01	0.00E+00	1.13E+01
Cs-134	<4.45E+00	0.00E+00	4.45E+00

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

Sample Point 131 [INDICATOR - WNW @ 0.64 miles]

Sample ID: 436742 **Sample Dates: 1/30/2017 - 2/27/2017**

Nuclide	Activity	2 Sigma Error	MDA
Cs-137	<5.21E+00	0.00E+00	5.21E+00
BaLa-140	<1.03E+01	0.00E+00	1.03E+01
Be-7	<4.41E+01	0.00E+00	4.41E+01
K-40	6.03E+01	2.96E+01	9.61E+00

Sample ID: 439207 **Sample Dates: 2/27/2017 - 3/27/2017**

Nuclide	Activity	2 Sigma Error	MDA
Mn-54	<3.33E+00	0.00E+00	3.33E+00
Co-58	<2.80E+00	0.00E+00	2.80E+00
Fe-59	<9.28E+00	0.00E+00	9.28E+00
Co-60	<4.21E+00	0.00E+00	4.21E+00
Zn-65	<9.02E+00	0.00E+00	9.02E+00
Zr-95	<8.57E+00	0.00E+00	8.57E+00
Nb-95	<4.94E+00	0.00E+00	4.94E+00
I-131	<1.19E+01	0.00E+00	1.19E+01
Cs-134	<2.79E+00	0.00E+00	2.79E+00
Cs-137	<4.98E+00	0.00E+00	4.98E+00
BaLa-140	<9.41E+00	0.00E+00	9.41E+00
Be-7	<3.77E+01	0.00E+00	3.77E+01
K-40	6.77E+01	3.68E+01	4.69E+01

Sample ID: 441888 **Sample Dates: 3/27/2017 - 4/24/2017**

Nuclide	Activity	2 Sigma Error	MDA
Mn-54	<3.10E+00	0.00E+00	3.10E+00
Co-58	<2.84E+00	0.00E+00	2.84E+00
Fe-59	<5.88E+00	0.00E+00	5.88E+00
Co-60	<3.00E+00	0.00E+00	3.00E+00
Zn-65	<6.33E+00	0.00E+00	6.33E+00
Zr-95	<6.31E+00	0.00E+00	6.31E+00
Nb-95	<3.83E+00	0.00E+00	3.83E+00
I-131	<1.13E+01	0.00E+00	1.13E+01
Cs-134	<3.31E+00	0.00E+00	3.31E+00
Cs-137	<3.34E+00	0.00E+00	3.34E+00
BaLa-140	<9.70E+00	0.00E+00	9.70E+00
Be-7	<2.66E+01	0.00E+00	2.66E+01
K-40	<4.97E+01	0.00E+00	4.97E+01

Sample ID: 442349 **Sample Dates: 2/27/2017 - 5/22/2017**

Nuclide	Activity	2 Sigma Error	MDA
H3SW	9.60E+02	1.43E+02	1.96E+02

Sample ID: 443884 **Sample Dates: 4/24/2017 - 5/22/2017**

Nuclide	Activity	2 Sigma Error	MDA
Mn-54	<2.81E+00	0.00E+00	2.81E+00
Co-58	<3.13E+00	0.00E+00	3.13E+00
Fe-59	<9.60E+00	0.00E+00	9.60E+00
Co-60	<4.02E+00	0.00E+00	4.02E+00
Zn-65	<5.30E+00	0.00E+00	5.30E+00
Zr-95	<7.66E+00	0.00E+00	7.66E+00
Nb-95	<5.02E+00	0.00E+00	5.02E+00
I-131	<1.06E+01	0.00E+00	1.06E+01
Cs-134	<3.85E+00	0.00E+00	3.85E+00
Cs-137	<4.22E+00	0.00E+00	4.22E+00
BaLa-140	<1.06E+01	0.00E+00	1.06E+01
Be-7	<3.40E+01	0.00E+00	3.40E+01
K-40	4.04E+01	2.98E+01	4.21E+01

Sample ID: 446851 **Sample Dates: 5/22/2017 - 6/19/2017**

Nuclide	Activity	2 Sigma Error	MDA
Mn-54	<2.88E+00	0.00E+00	2.88E+00
Co-58	<2.43E+00	0.00E+00	2.43E+00
Fe-59	<6.85E+00	0.00E+00	6.85E+00
Co-60	<2.44E+00	0.00E+00	2.44E+00
Zn-65	<4.83E+00	0.00E+00	4.83E+00
Zr-95	<6.39E+00	0.00E+00	6.39E+00
Nb-95	<3.65E+00	0.00E+00	3.65E+00
I-131	<1.18E+01	0.00E+00	1.18E+01
Cs-134	<3.86E+00	0.00E+00	3.86E+00
Cs-137	<3.50E+00	0.00E+00	3.50E+00
BaLa-140	<5.32E+00	0.00E+00	5.32E+00
Be-7	<3.16E+01	0.00E+00	3.16E+01
K-40	1.11E+02	3.89E+01	4.58E+01

MCGUIRE Radiological Environmental Monitoring Analysis Report - 2017 (Appendix E)

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

Sample Point 131 [INDICATOR - WNW @ 0.64 miles]

Sample ID: 448919 **Sample Dates: 6/19/2017 - 7/17/2017**

Nuclide	Activity	2 Sigma Error	MDA
Mn-54	<2.20E+00	0.00E+00	2.20E+00
Co-58	<3.18E+00	0.00E+00	3.18E+00
Fe-59	<5.76E+00	0.00E+00	5.76E+00
Co-60	<3.87E+00	0.00E+00	3.87E+00
Zn-65	<7.10E+00	0.00E+00	7.10E+00
Zr-95	<6.34E+00	0.00E+00	6.34E+00
Nb-95	<3.99E+00	0.00E+00	3.99E+00
I-131	<1.19E+01	0.00E+00	1.19E+01
Cs-134	<3.77E+00	0.00E+00	3.77E+00
Cs-137	<3.72E+00	0.00E+00	3.72E+00
BaLa-140	<6.82E+00	0.00E+00	6.82E+00
Be-7	<3.55E+01	0.00E+00	3.55E+01
K-40	<6.10E+01	0.00E+00	6.10E+01

Sample ID: 450052 **Sample Dates: 5/22/2017 - 8/14/2017**

Nuclide	Activity	2 Sigma Error	MDA
H3SW	5.23E+02	1.25E+02	1.86E+02

Sample ID: 450752 **Sample Dates: 7/17/2017 - 8/14/2017**

Nuclide	Activity	2 Sigma Error	MDA
Mn-54	<2.87E+00	0.00E+00	2.87E+00
Co-58	<2.70E+00	0.00E+00	2.70E+00
Fe-59	<7.37E+00	0.00E+00	7.37E+00
Co-60	<3.08E+00	0.00E+00	3.08E+00
Zn-65	<5.98E+00	0.00E+00	5.98E+00
Zr-95	<5.88E+00	0.00E+00	5.88E+00
Nb-95	<4.20E+00	0.00E+00	4.20E+00
I-131	<1.13E+01	0.00E+00	1.13E+01
Cs-134	<3.07E+00	0.00E+00	3.07E+00
Cs-137	<2.68E+00	0.00E+00	2.68E+00
BaLa-140	<6.25E+00	0.00E+00	6.25E+00
Be-7	<2.94E+01	0.00E+00	2.94E+01
K-40	<5.18E+01	0.00E+00	5.18E+01

Sample ID: 452812 **Sample Dates: 8/14/2017 - 9/11/2017**

Nuclide	Activity	2 Sigma Error	MDA
Mn-54	<3.13E+00	0.00E+00	3.13E+00
Co-58	<3.32E+00	0.00E+00	3.32E+00
Fe-59	<8.22E+00	0.00E+00	8.22E+00
Co-60	<3.27E+00	0.00E+00	3.27E+00
Zn-65	<5.12E+00	0.00E+00	5.12E+00
Zr-95	<5.63E+00	0.00E+00	5.63E+00
Nb-95	<4.54E+00	0.00E+00	4.54E+00
I-131	<1.13E+01	0.00E+00	1.13E+01
Cs-134	<3.73E+00	0.00E+00	3.73E+00
Cs-137	<4.34E+00	0.00E+00	4.34E+00
BaLa-140	<7.46E+00	0.00E+00	7.46E+00
Be-7	<2.61E+01	0.00E+00	2.61E+01
K-40	<5.64E+01	0.00E+00	5.64E+01

Sample ID: 455439 **Sample Dates: 9/11/2017 - 10/9/2017**

Nuclide	Activity	2 Sigma Error	MDA
Mn-54	<2.93E+00	0.00E+00	2.93E+00
Co-58	<3.26E+00	0.00E+00	3.26E+00
Fe-59	<5.95E+00	0.00E+00	5.95E+00
Co-60	<2.48E+00	0.00E+00	2.48E+00
Zn-65	<4.57E+00	0.00E+00	4.57E+00
Zr-95	<6.55E+00	0.00E+00	6.55E+00
Nb-95	<4.42E+00	0.00E+00	4.42E+00
I-131	<1.14E+01	0.00E+00	1.14E+01
Cs-134	<3.05E+00	0.00E+00	3.05E+00
Cs-137	<3.22E+00	0.00E+00	3.22E+00
BaLa-140	<6.33E+00	0.00E+00	6.33E+00
Be-7	<2.35E+01	0.00E+00	2.35E+01
K-40	9.93E+01	3.76E+01	4.57E+01

Sample ID: 462630 **Sample Dates: 10/9/2017 - 11/6/2017**

Nuclide	Activity	2 Sigma Error	MDA
Mn-54	<3.50E+00	0.00E+00	3.50E+00
Co-58	<5.35E+00	0.00E+00	5.35E+00
Fe-59	<6.06E+00	0.00E+00	6.06E+00
Co-60	<4.70E+00	0.00E+00	4.70E+00
Zn-65	<7.36E+00	0.00E+00	7.36E+00

MCGUIRE Radiological Environmental Monitoring Analysis Report - 2017 (Appendix E)

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

Sample Point 131 [INDICATOR - WNW @ 0.64 miles]

Sample ID: 462630 **Sample Dates: 10/9/2017 - 11/6/2017**

Nuclide	Activity	2 Sigma Error	MDA
Zr-95	<6.86E+00	0.00E+00	6.87E+00
Nb-95	<5.34E+00	0.00E+00	5.34E+00
I-131	<1.16E+01	0.00E+00	1.16E+01
Cs-134	<3.89E+00	0.00E+00	3.89E+00
Cs-137	<4.20E+00	0.00E+00	4.20E+00
BaLa-140	<8.32E+00	0.00E+00	8.32E+00
Be-7	<3.63E+01	0.00E+00	3.63E+01
K-40	<6.64E+01	0.00E+00	6.64E+01

Sample ID: 462373 **Sample Dates: 8/14/2017 - 12/4/2017**

Nuclide	Activity	2 Sigma Error	MDA
H3SW	6.12E+02	1.30E+02	1.91E+02

Sample ID: 464727 **Sample Dates: 11/6/2017 - 12/4/2017**

Nuclide	Activity	2 Sigma Error	MDA
Mn-54	<2.23E+00	0.00E+00	2.23E+00
Co-58	<3.25E+00	0.00E+00	3.25E+00
Fe-59	<6.97E+00	0.00E+00	6.97E+00
Co-60	<3.00E+00	0.00E+00	3.00E+00
Zn-65	<5.27E+00	0.00E+00	5.27E+00
Zr-95	<6.40E+00	0.00E+00	6.40E+00
Nb-95	<3.95E+00	0.00E+00	3.95E+00
I-131	<1.11E+01	0.00E+00	1.11E+01
Cs-134	<3.19E+00	0.00E+00	3.19E+00
Cs-137	<3.11E+00	0.00E+00	3.11E+00
BaLa-140	<7.32E+00	0.00E+00	7.32E+00
Be-7	<2.95E+01	0.00E+00	2.95E+01
K-40	6.13E+01	3.07E+01	4.13E+01

Sample ID: 466005 **Sample Dates: 12/4/2017 - 1/2/2018**

Nuclide	Activity	2 Sigma Error	MDA
Mn-54	<2.40E+00	0.00E+00	2.40E+00
Co-58	<2.87E+00	0.00E+00	2.87E+00
Fe-59	<6.16E+00	0.00E+00	6.16E+00
Co-60	<2.69E+00	0.00E+00	2.69E+00
Zn-65	<5.91E+00	0.00E+00	5.91E+00
Zr-95	<5.40E+00	0.00E+00	5.40E+00
Nb-95	<3.14E+00	0.00E+00	3.14E+00
I-131	<1.09E+01	0.00E+00	1.09E+01
Cs-134	<2.66E+00	0.00E+00	2.66E+00
Cs-137	<2.56E+00	0.00E+00	2.56E+00
BaLa-140	<6.39E+00	0.00E+00	6.39E+00
Be-7	<2.71E+01	0.00E+00	2.71E+01
K-40	3.24E+01	2.07E+01	2.80E+01
H3SW	5.32E+02	1.20E+02	1.76E+02

Sample Point 135 [CONTROL - N @ 11.9 miles]

Sample ID: 432239 **Sample Dates: 12/5/2016 - 1/3/2017**

Nuclide	Activity	2 Sigma Error	MDA
Mn-54	<3.42E+00	0.00E+00	3.42E+00
Co-58	<4.38E+00	0.00E+00	4.38E+00
Fe-59	<6.22E+00	0.00E+00	6.22E+00
Co-60	<3.17E+00	0.00E+00	3.17E+00
Zn-65	<8.45E+00	0.00E+00	8.45E+00
Zr-95	<8.44E+00	0.00E+00	8.44E+00
Nb-95	<5.19E+00	0.00E+00	5.19E+00
I-131	<1.17E+01	0.00E+00	1.17E+01
Cs-134	<4.52E+00	0.00E+00	4.52E+00
Cs-137	<4.37E+00	0.00E+00	4.37E+00
BaLa-140	<5.30E+00	0.00E+00	5.30E+00
Be-7	<2.42E+01	0.00E+00	2.42E+01
K-40	4.78E+01	3.67E+01	5.46E+01

Sample ID: 434488 **Sample Dates: 1/3/2017 - 1/30/2017**

Nuclide	Activity	2 Sigma Error	MDA
Mn-54	<3.13E+00	0.00E+00	3.13E+00
Co-58	<3.15E+00	0.00E+00	3.15E+00
Fe-59	<8.13E+00	0.00E+00	8.13E+00
Co-60	<8.69E-01	0.00E+00	8.69E-01
Zn-65	<7.07E+00	0.00E+00	7.07E+00
Zr-95	<6.08E+00	0.00E+00	6.08E+00
Nb-95	<5.26E+00	0.00E+00	5.26E+00

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

Sample Point 135 [CONTROL - N @ 11.9 miles]

Sample ID: 434488 **Sample Dates: 1/3/2017 - 1/30/2017**

Nuclide	Activity	2 Sigma Error	MDA
I-131	<1.08E+01	0.00E+00	1.08E+01
Cs-134	<4.61E+00	0.00E+00	4.61E+00
Cs-137	<3.67E+00	0.00E+00	3.67E+00
BaLa-140	<8.86E+00	0.00E+00	8.86E+00
Be-7	<3.58E+01	0.00E+00	3.58E+01
K-40	<6.40E+01	0.00E+00	6.40E+01

Sample ID: 434744 **Sample Dates: 12/5/2016 - 2/27/2017**

Nuclide	Activity	2 Sigma Error	MDA
H3SW	<3.74E+01	0.00E+00	1.88E+02

Sample ID: 436743 **Sample Dates: 1/30/2017 - 2/27/2017**

Nuclide	Activity	2 Sigma Error	MDA
Mn-54	<3.31E+00	0.00E+00	3.31E+00
Co-58	<3.86E+00	0.00E+00	3.86E+00
Fe-59	<6.20E+00	0.00E+00	6.20E+00
Co-60	<3.18E+00	0.00E+00	3.18E+00
Zn-65	<7.12E+00	0.00E+00	7.12E+00
Zr-95	<8.10E+00	0.00E+00	8.10E+00
Nb-95	<5.09E+00	0.00E+00	5.09E+00
I-131	<1.17E+01	0.00E+00	1.17E+01
Cs-134	<2.63E+00	0.00E+00	2.63E+00
Cs-137	<3.88E+00	0.00E+00	3.88E+00
BaLa-140	<5.72E+00	0.00E+00	5.72E+00
Be-7	<3.31E+01	0.00E+00	3.31E+01
K-40	1.85E+01	2.75E+01	4.61E+01

Sample ID: 439208 **Sample Dates: 2/27/2017 - 3/27/2017**

Nuclide	Activity	2 Sigma Error	MDA
Mn-54	<3.08E+00	0.00E+00	3.08E+00
Co-58	<4.23E+00	0.00E+00	4.23E+00
Fe-59	<6.95E+00	0.00E+00	6.95E+00
Co-60	<4.14E+00	0.00E+00	4.14E+00
Zn-65	<7.61E+00	0.00E+00	7.61E+00
Zr-95	<8.10E+00	0.00E+00	8.10E+00
Nb-95	<5.13E+00	0.00E+00	5.13E+00
I-131	<7.69E+00	0.00E+00	7.69E+00
Cs-134	<4.04E+00	0.00E+00	4.04E+00
Cs-137	<3.84E+00	0.00E+00	3.84E+00
BaLa-140	<1.15E+01	0.00E+00	1.15E+01
Be-7	<3.64E+01	0.00E+00	3.64E+01
K-40	<6.21E+01	0.00E+00	6.21E+01

Sample ID: 441889 **Sample Dates: 3/27/2017 - 4/24/2017**

Nuclide	Activity	2 Sigma Error	MDA
Mn-54	<3.23E+00	0.00E+00	3.23E+00
Co-58	<4.62E+00	0.00E+00	4.62E+00
Fe-59	<7.93E+00	0.00E+00	7.93E+00
Co-60	<2.13E+00	0.00E+00	2.13E+00
Zn-65	<6.37E+00	0.00E+00	6.37E+00
Zr-95	<6.67E+00	0.00E+00	6.67E+00
Nb-95	<4.79E+00	0.00E+00	4.79E+00
I-131	<1.14E+01	0.00E+00	1.14E+01
Cs-134	<4.65E+00	0.00E+00	4.65E+00
Cs-137	<4.20E+00	0.00E+00	4.20E+00
BaLa-140	<9.98E+00	0.00E+00	9.98E+00
Be-7	<3.55E+01	0.00E+00	3.55E+01
K-40	<6.10E+01	0.00E+00	6.10E+01

Sample ID: 442350 **Sample Dates: 2/27/2017 - 5/22/2017**

Nuclide	Activity	2 Sigma Error	MDA
H3SW	<-4.6E+01	0.00E+00	1.97E+02

Sample ID: 443885 **Sample Dates: 4/24/2017 - 5/22/2017**

Nuclide	Activity	2 Sigma Error	MDA
Mn-54	<3.98E+00	0.00E+00	3.98E+00
Co-58	<4.18E+00	0.00E+00	4.18E+00
Fe-59	<9.32E+00	0.00E+00	9.32E+00
Co-60	<3.10E+00	0.00E+00	3.10E+00
Zn-65	<8.68E+00	0.00E+00	8.68E+00
Zr-95	<7.42E+00	0.00E+00	7.42E+00
Nb-95	<4.70E+00	0.00E+00	4.70E+00
I-131	<1.18E+01	0.00E+00	1.18E+01
Cs-134	<4.63E+00	0.00E+00	4.63E+00

MCGUIRE Radiological Environmental Monitoring Analysis Report - 2017 (Appendix E)

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

Sample Point 135 [CONTROL - N @ 11.9 miles]

Sample ID: 443885 **Sample Dates: 4/24/2017 - 5/22/2017**

Nuclide	Activity	2 Sigma Error	MDA
Cs-137	<4.05E+00	0.00E+00	4.05E+00
BaLa-140	<9.97E+00	0.00E+00	9.97E+00
Be-7	<3.56E+01	0.00E+00	3.56E+01
K-40	<5.51E+01	0.00E+00	5.51E+01

Sample ID: 446852 **Sample Dates: 5/22/2017 - 6/19/2017**

Nuclide	Activity	2 Sigma Error	MDA
Mn-54	<3.24E+00	0.00E+00	3.24E+00
Co-58	<3.60E+00	0.00E+00	3.60E+00
Fe-59	<6.85E+00	0.00E+00	6.85E+00
Co-60	<3.46E+00	0.00E+00	3.46E+00
Zn-65	<5.57E+00	0.00E+00	5.57E+00
Zr-95	<5.91E+00	0.00E+00	5.91E+00
Nb-95	<4.70E+00	0.00E+00	4.70E+00
I-131	<1.19E+01	0.00E+00	1.19E+01
Cs-134	<3.96E+00	0.00E+00	3.96E+00
Cs-137	<3.13E+00	0.00E+00	3.13E+00
BaLa-140	<7.67E+00	0.00E+00	7.67E+00
Be-7	4.17E+00	1.77E+01	3.18E+01
K-40	7.66E+01	3.92E+01	5.27E+01

Sample ID: 448920 **Sample Dates: 6/19/2017 - 7/17/2017**

Nuclide	Activity	2 Sigma Error	MDA
Mn-54	<3.98E+00	0.00E+00	3.98E+00
Co-58	<4.15E+00	0.00E+00	4.15E+00
Fe-59	<8.59E+00	0.00E+00	8.59E+00
Co-60	<3.62E+00	0.00E+00	3.62E+00
Zn-65	<5.74E+00	0.00E+00	5.74E+00
Zr-95	<7.77E+00	0.00E+00	7.77E+00
Nb-95	<4.88E+00	0.00E+00	4.88E+00
I-131	<1.09E+01	0.00E+00	1.09E+01
Cs-134	<3.92E+00	0.00E+00	3.92E+00
Cs-137	<4.41E+00	0.00E+00	4.41E+00
BaLa-140	<1.16E+01	0.00E+00	1.16E+01
Be-7	<2.73E+01	0.00E+00	2.73E+01
K-40	<6.91E+01	0.00E+00	6.91E+01

Sample ID: 450053 **Sample Dates: 5/22/2017 - 8/14/2017**

Nuclide	Activity	2 Sigma Error	MDA
H3SW	<1.75E+02	0.00E+00	1.86E+02

Sample ID: 450753 **Sample Dates: 7/17/2017 - 8/14/2017**

Nuclide	Activity	2 Sigma Error	MDA
Mn-54	<3.24E+00	0.00E+00	3.24E+00
Co-58	<2.98E+00	0.00E+00	2.98E+00
Fe-59	<6.67E+00	0.00E+00	6.67E+00
Co-60	<2.58E+00	0.00E+00	2.58E+00
Zn-65	<7.67E+00	0.00E+00	7.67E+00
Zr-95	<5.59E+00	0.00E+00	5.59E+00
Nb-95	<4.35E+00	0.00E+00	4.35E+00
I-131	<1.07E+01	0.00E+00	1.07E+01
Cs-134	<2.38E+00	0.00E+00	2.38E+00
Cs-137	<3.37E+00	0.00E+00	3.37E+00
BaLa-140	<8.76E+00	0.00E+00	8.76E+00
Be-7	<1.97E+01	0.00E+00	1.97E+01
K-40	<4.77E+01	0.00E+00	4.77E+01

Sample ID: 452813 **Sample Dates: 8/14/2017 - 9/11/2017**

Nuclide	Activity	2 Sigma Error	MDA
Mn-54	<1.99E+00	0.00E+00	1.99E+00
Co-58	<2.49E+00	0.00E+00	2.49E+00
Fe-59	<5.46E+00	0.00E+00	5.46E+00
Co-60	<2.55E+00	0.00E+00	2.55E+00
Zn-65	<5.94E+00	0.00E+00	5.94E+00
Zr-95	<4.56E+00	0.00E+00	4.56E+00
Nb-95	<3.05E+00	0.00E+00	3.05E+00
I-131	<7.57E+00	0.00E+00	7.57E+00
Cs-134	<3.26E+00	0.00E+00	3.26E+00
Cs-137	<3.39E+00	0.00E+00	3.39E+00
BaLa-140	<5.62E+00	0.00E+00	5.62E+00
Be-7	<2.45E+01	0.00E+00	2.45E+01
K-40	3.33E+01	2.38E+01	3.50E+01

MCGUIRE Radiological Environmental Monitoring Analysis Report - 2017 (Appendix E)

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

Sample Point 135 [CONTROL - N @ 11.9 miles]

Sample ID: 455440 **Sample Dates: 9/11/2017 - 10/9/2017**

Nuclide	Activity	2 Sigma Error	MDA
Mn-54	<3.00E+00	0.00E+00	3.00E+00
Co-58	<3.23E+00	0.00E+00	3.23E+00
Fe-59	<6.63E+00	0.00E+00	6.63E+00
Co-60	<2.71E+00	0.00E+00	2.71E+00
Zn-65	<6.44E+00	0.00E+00	6.44E+00
Zr-95	<5.36E+00	0.00E+00	5.36E+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	<2.67E+00	0.00E+00	2.67E+00
Cs-137	<3.07E+00	0.00E+00	3.07E+00
BaLa-140	<7.49E+00	0.00E+00	7.49E+00
Be-7	<2.88E+01	0.00E+00	2.88E+01
K-40	2.65E+01	2.02E+01	2.86E+01

Sample ID: 462631 **Sample Dates: 10/9/2017 - 11/6/2017**

Nuclide	Activity	2 Sigma Error	MDA
Mn-54	<2.72E+00	0.00E+00	2.72E+00
Co-58	<3.13E+00	0.00E+00	3.13E+00
Fe-59	<6.16E+00	0.00E+00	6.16E+00
Co-60	<3.16E+00	0.00E+00	3.16E+00
Zn-65	<5.06E+00	0.00E+00	5.06E+00
Zr-95	<5.33E+00	0.00E+00	5.33E+00
Nb-95	<2.71E+00	0.00E+00	2.71E+00
I-131	<1.10E+01	0.00E+00	1.10E+01
Cs-134	<3.15E+00	0.00E+00	3.15E+00
Cs-137	<3.32E+00	0.00E+00	3.32E+00
BaLa-140	<6.73E+00	0.00E+00	6.73E+00
Be-7	<3.20E+01	0.00E+00	3.20E+01
K-40	<5.32E+01	0.00E+00	5.32E+01

Sample ID: 462374 **Sample Dates: 8/14/2017 - 12/4/2017**

Nuclide	Activity	2 Sigma Error	MDA
H3SW	<2.62E+01	0.00E+00	1.91E+02

Sample ID: 464728 **Sample Dates: 11/6/2017 - 12/4/2017**

Nuclide	Activity	2 Sigma Error	MDA
Mn-54	<3.76E+00	0.00E+00	3.76E+00
Co-58	<4.15E+00	0.00E+00	4.15E+00
Fe-59	<8.56E+00	0.00E+00	8.56E+00
Co-60	<5.56E+00	0.00E+00	5.56E+00
Zn-65	<1.07E+01	0.00E+00	1.07E+01
Zr-95	<6.42E+00	0.00E+00	6.42E+00
Nb-95	<4.04E+00	0.00E+00	4.04E+00
I-131	<1.10E+01	0.00E+00	1.10E+01
Cs-134	<4.84E+00	0.00E+00	4.84E+00
Cs-137	<3.43E+00	0.00E+00	3.43E+00
BaLa-140	<9.53E+00	0.00E+00	9.53E+00
Be-7	<3.78E+01	0.00E+00	3.78E+01
K-40	<5.99E+01	0.00E+00	5.99E+01

Sample ID: 466006 **Sample Dates: 12/4/2017 - 1/2/2018**

Nuclide	Activity	2 Sigma Error	MDA
Mn-54	<4.09E+00	0.00E+00	4.09E+00
Co-58	<3.40E+00	0.00E+00	3.40E+00
Fe-59	<6.17E+00	0.00E+00	6.17E+00
Co-60	<3.13E+00	0.00E+00	3.13E+00
Zn-65	<8.04E+00	0.00E+00	8.04E+00
Zr-95	<5.13E+00	0.00E+00	5.13E+00
Nb-95	<4.28E+00	0.00E+00	4.28E+00
I-131	<1.19E+01	0.00E+00	1.19E+01
Cs-134	<3.40E+00	0.00E+00	3.40E+00
Cs-137	<2.53E+00	0.00E+00	2.53E+00
BaLa-140	<8.57E+00	0.00E+00	8.57E+00
Be-7	<2.39E+01	0.00E+00	2.39E+01
K-40	6.34E+00	3.31E+01	6.04E+01
H3SW	<1.42E+01	0.00E+00	1.76E+02

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

Sample Point 143 [INDICATOR - NW @ 0.27 miles] **TLD RING TLD_INNER**

Sample ID: 437196 **Sample Dates: 12/14/2016 - 3/15/2017**

Nuclide	Activity
mR/Std Qtr	19.41

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

Sample Point 143 [INDICATOR - NW @ 0.27 miles] — TLD RING TLD_INNER

Sample ID:	Sample Dates:	Nuclide	Activity
445094	3/15/2017 - 6/14/2017	mR/Std Qtr	14.15
452125	6/14/2017 - 9/13/2017	mR/Std Qtr	15.40
464507	9/13/2017 - 12/13/2017	mR/Std Qtr	16.61

Sample Point 144 [INDICATOR - NNE @ 0.46 miles] — TLD RING TLD_INNER

Sample ID:	Sample Dates:	Nuclide	Activity
437197	12/14/2016 - 3/15/2017	mR/Std Qtr	16.84
445095	3/15/2017 - 6/14/2017	mR/Std Qtr	13.97
452126	6/14/2017 - 9/13/2017	mR/Std Qtr	12.97
464508	9/13/2017 - 12/13/2017	mR/Std Qtr	12.62

Sample Point 145 [INDICATOR - NE @ 0.47 miles] — TLD RING TLD_INNER

Sample ID:	Sample Dates:	Nuclide	Activity
437198	12/14/2016 - 3/15/2017	mR/Std Qtr	18.79
445096	3/15/2017 - 6/14/2017	mR/Std Qtr	13.49
452127	6/14/2017 - 9/13/2017	mR/Std Qtr	12.97
464509	9/13/2017 - 12/13/2017	mR/Std Qtr	12.55

Sample Point 146 [INDICATOR - ENE @ 0.42 miles] — TLD RING TLD_INNER

Sample ID:	Sample Dates:	Nuclide	Activity
437199	12/14/2016 - 3/15/2017	mR/Std Qtr	17.75
445097	3/15/2017 - 6/14/2017	mR/Std Qtr	14.92
452128	6/14/2017 - 9/13/2017	mR/Std Qtr	12.91
464510	9/13/2017 - 12/13/2017	mR/Std Qtr	11.99

Sample Point 147 [INDICATOR - E @ 0.44 miles] — TLD RING TLD_INNER

Sample ID:	Sample Dates:	Nuclide	Activity
437200	12/14/2016 - 3/15/2017	mR/Std Qtr	18.62
445098	3/15/2017 - 6/14/2017	mR/Std Qtr	13.25
452129	6/14/2017 - 9/13/2017	mR/Std Qtr	13.75
464511	9/13/2017 - 12/13/2017	mR/Std Qtr	12.85

Sample Point 148 [INDICATOR - ESE @ 0.46 miles] — TLD RING TLD_INNER

Sample ID:	Sample Dates:	Nuclide	Activity
437201	12/14/2016 - 3/15/2017	mR/Std Qtr	15.11
445099	3/15/2017 - 6/14/2017	mR/Std Qtr	14.34
452130	6/14/2017 - 9/13/2017	mR/Std Qtr	12.01

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

Sample Point 148 [INDICATOR - ESE @ 0.46 miles] — TLD RING TLD_INNER

Sample ID:	Sample Dates:	Nuclide	Activity
464512	9/13/2017 - 12/13/2017	mR/Std Qtr	12.59

Sample Point 149 [INDICATOR - SE @ 0.5 miles] — TLD RING TLD_INNER

Sample ID:	Sample Dates:	Nuclide	Activity
437202	12/14/2016 - 3/15/2017	mR/Std Qtr	13.31
445100	3/15/2017 - 6/14/2017	mR/Std Qtr	12.43
452131	6/14/2017 - 9/13/2017	mR/Std Qtr	10.83
464513	9/13/2017 - 12/13/2017	mR/Std Qtr	11.50

Sample Point 151 [INDICATOR - S @ 0.37 miles] — TLD RING TLD_INNER

Sample ID:	Sample Dates:	Nuclide	Activity
437203	12/14/2016 - 3/15/2017	mR/Std Qtr	15.35
445101	3/15/2017 - 6/14/2017	mR/Std Qtr	12.13
452132	6/14/2017 - 9/13/2017	mR/Std Qtr	14.18
464514	9/13/2017 - 12/13/2017	mR/Std Qtr	13.36

Sample Point 152 [INDICATOR - SSW @ 0.44 miles] — TLD RING TLD_INNER

Sample ID:	Sample Dates:	Nuclide	Activity
437204	12/14/2016 - 3/15/2017	mR/Std Qtr	17.72
445102	3/15/2017 - 6/14/2017	mR/Std Qtr	13.22
452133	6/14/2017 - 9/13/2017	mR/Std Qtr	11.86
464515	9/13/2017 - 12/13/2017	mR/Std Qtr	13.58

Sample Point 153 [INDICATOR - SW @ 0.47 miles] — TLD RING TLD_INNER

Sample ID:	Sample Dates:	Nuclide	Activity
437205	12/14/2016 - 3/15/2017	mR/Std Qtr	20.61
445103	3/15/2017 - 6/14/2017	mR/Std Qtr	15.92
452134	6/14/2017 - 9/13/2017	mR/Std Qtr	17.46
464516	9/13/2017 - 12/13/2017	mR/Std Qtr	16.03

Sample Point 154 [INDICATOR - W @ 0.45 miles] — TLD RING TLD_INNER

Sample ID:	Sample Dates:	Nuclide	Activity
437206	12/14/2016 - 3/15/2017	mR/Std Qtr	21.41
445104	3/15/2017 - 6/14/2017	mR/Std Qtr	16.55
452135	6/14/2017 - 9/13/2017	mR/Std Qtr	16.43
464517	9/13/2017 - 12/13/2017	mR/Std Qtr	16.50

Sample Point 156 [INDICATOR - WNW @ 0.44 miles] — TLD RING TLD_INNER

Sample ID:	Sample Dates:	Nuclide	Activity
437207	12/14/2016 - 3/15/2017	mR/Std Qtr	18.68

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

Sample Point 156 [INDICATOR - WNW @ 0.44 miles] — TLD RING TLD_INNER

Sample ID:	Sample Dates:	Nuclide	Activity
445105	3/15/2017 - 6/14/2017	mR/Std Qtr	14.45
452136	6/14/2017 - 9/13/2017	mR/Std Qtr	15.08
464518	9/13/2017 - 12/13/2017	mR/Std Qtr	14.71

Sample Point 157 [INDICATOR - N @ 4.69 miles] — TLD RING TLD_OUTER

Sample ID:	Sample Dates:	Nuclide	Activity
437208	12/14/2016 - 3/15/2017	mR/Std Qtr	17.98
445106	3/15/2017 - 6/14/2017	mR/Std Qtr	15.83
452137	6/14/2017 - 9/13/2017	mR/Std Qtr	14.52
464519	9/13/2017 - 12/13/2017	mR/Std Qtr	12.56

Sample Point 158 [INDICATOR - NNE @ 4.33 miles] — TLD RING TLD_OUTER

Sample ID:	Sample Dates:	Nuclide	Activity
437209	12/14/2016 - 3/15/2017	mR/Std Qtr	17.43
445107	3/15/2017 - 6/14/2017	mR/Std Qtr	12.57
452138	6/14/2017 - 9/13/2017	mR/Std Qtr	12.33
464520	9/13/2017 - 12/13/2017	mR/Std Qtr	14.72

Sample Point 159 [INDICATOR - NE @ 4.77 miles] — TLD RING TLD_OUTER

Sample ID:	Sample Dates:	Nuclide	Activity
437210	12/14/2016 - 3/15/2017	mR/Std Qtr	18.16
445108	3/15/2017 - 6/14/2017	mR/Std Qtr	14.67
452139	6/14/2017 - 9/13/2017	mR/Std Qtr	15.25
464521	9/13/2017 - 12/13/2017	mR/Std Qtr	14.89

Sample Point 160 [INDICATOR - ENE @ 4.89 miles] — TLD RING TLD_OUTER

Sample ID:	Sample Dates:	Nuclide	Activity
437211	12/14/2016 - 3/15/2017	mR/Std Qtr	19.46
445109	3/15/2017 - 6/14/2017	mR/Std Qtr	15.36
464522	9/13/2017 - 12/13/2017	mR/Std Qtr	13.50

Sample Point 161 [INDICATOR - E @ 4.7 miles] — TLD RING TLD_OUTER

Sample ID:	Sample Dates:	Nuclide	Activity
437212	12/14/2016 - 3/15/2017	mR/Std Qtr	17.50
445110	3/15/2017 - 6/14/2017	mR/Std Qtr	13.34
452141	6/14/2017 - 9/13/2017	mR/Std Qtr	13.48
464523	9/13/2017 - 12/13/2017	mR/Std Qtr	14.31

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

Sample Point 162 [INDICATOR - ESE @ 4.53 miles] — TLD RING TLD_OUTER

Sample ID:	Sample Dates:	Nuclide	Activity
437213	12/14/2016 - 3/15/2017	mR/Std Qtr	13.98
445111	3/15/2017 - 6/14/2017	mR/Std Qtr	10.32
452142	6/14/2017 - 9/13/2017	mR/Std Qtr	10.74
464524	9/13/2017 - 12/13/2017	mR/Std Qtr	11.59

Sample Point 163 [INDICATOR - SE @ 4.94 miles] — TLD RING TLD_OUTER

Sample ID:	Sample Dates:	Nuclide	Activity
437214	12/14/2016 - 3/15/2017	mR/Std Qtr	13.76
445112	3/15/2017 - 6/14/2017	mR/Std Qtr	10.04
452143	6/14/2017 - 9/13/2017	mR/Std Qtr	9.25
464525	9/13/2017 - 12/13/2017	mR/Std Qtr	10.34

Sample Point 164 [INDICATOR - SSE @ 4.64 miles] — TLD RING TLD_OUTER

Sample ID:	Sample Dates:	Nuclide	Activity
437215	12/14/2016 - 3/15/2017	mR/Std Qtr	12.51
445113	3/15/2017 - 6/14/2017	mR/Std Qtr	10.65
452144	6/14/2017 - 9/13/2017	mR/Std Qtr	9.42
464526	9/13/2017 - 12/13/2017	mR/Std Qtr	9.59

Sample Point 165 [INDICATOR - S @ 4.57 miles] — TLD RING TLD_OUTER

Sample ID:	Sample Dates:	Nuclide	Activity
437216	12/14/2016 - 3/15/2017	mR/Std Qtr	22.55
445114	3/15/2017 - 6/14/2017	mR/Std Qtr	18.63
452145	6/14/2017 - 9/13/2017	mR/Std Qtr	16.83
464527	9/13/2017 - 12/13/2017	mR/Std Qtr	17.38

Sample Point 166 [INDICATOR - SSW @ 4.44 miles] — TLD RING TLD_OUTER

Sample ID:	Sample Dates:	Nuclide	Activity
437217	12/14/2016 - 3/15/2017	mR/Std Qtr	21.49
445115	3/15/2017 - 6/14/2017	mR/Std Qtr	16.13
452146	6/14/2017 - 9/13/2017	mR/Std Qtr	15.93
464528	9/13/2017 - 12/13/2017	mR/Std Qtr	17.44

Sample Point 167 [INDICATOR - SW @ 4.87 miles] — TLD RING TLD_OUTER

Sample ID:	Sample Dates:	Nuclide	Activity
437218	12/14/2016 - 3/15/2017	mR/Std Qtr	20.88
445116	3/15/2017 - 6/14/2017	mR/Std Qtr	18.22

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

Sample Point 167 [INDICATOR - SW @ 4.87 miles] — TLD RING TLD_OUTER

Sample ID:	Sample Dates:	Nuclide	Activity
452147	6/14/2017 - 9/13/2017	mR/Std Qtr	18.09
464529	9/13/2017 - 12/13/2017	mR/Std Qtr	17.62

Sample Point 168 [INDICATOR - WSW @ 4.6 miles] — TLD RING TLD_OUTER

Sample ID:	Sample Dates:	Nuclide	Activity
437219	12/14/2016 - 3/15/2017	mR/Std Qtr	18.38
445117	3/15/2017 - 6/14/2017	mR/Std Qtr	14.32
452148	6/14/2017 - 9/13/2017	mR/Std Qtr	14.11
464530	9/13/2017 - 12/13/2017	mR/Std Qtr	15.44

Sample Point 169 [INDICATOR - W @ 4.03 miles] — TLD RING TLD_OUTER

Sample ID:	Sample Dates:	Nuclide	Activity
437220	12/14/2016 - 3/15/2017	mR/Std Qtr	17.20
445118	3/15/2017 - 6/14/2017	mR/Std Qtr	12.63
452149	6/14/2017 - 9/13/2017	mR/Std Qtr	13.17
464531	9/13/2017 - 12/13/2017	mR/Std Qtr	12.02

Sample Point 170 [INDICATOR - WNW @ 4.32 miles] — TLD RING TLD_OUTER

Sample ID:	Sample Dates:	Nuclide	Activity
437221	12/14/2016 - 3/15/2017	mR/Std Qtr	28.59
445119	3/15/2017 - 6/14/2017	mR/Std Qtr	23.18
452150	6/14/2017 - 9/13/2017	mR/Std Qtr	24.73
464532	9/13/2017 - 12/13/2017	mR/Std Qtr	23.01

Sample Point 171 [INDICATOR - NW @ 3.95 miles] — TLD RING TLD_OUTER

Sample ID:	Sample Dates:	Nuclide	Activity
437222	12/14/2016 - 3/15/2017	mR/Std Qtr	18.92
445120	3/15/2017 - 6/14/2017	mR/Std Qtr	15.17
452151	6/14/2017 - 9/13/2017	mR/Std Qtr	19.05
464533	9/13/2017 - 12/13/2017	mR/Std Qtr	17.97

Sample Point 172 [INDICATOR - NNW @ 4.69 miles] — TLD RING TLD_OUTER

Sample ID:	Sample Dates:	Nuclide	Activity
437223	12/14/2016 - 3/15/2017	mR/Std Qtr	17.43
445121	3/15/2017 - 6/14/2017	mR/Std Qtr	12.26
452152	6/14/2017 - 9/13/2017	mR/Std Qtr	12.58
464534	9/13/2017 - 12/13/2017	mR/Std Qtr	13.78

Sample Point 173 [INDICATOR - NNW @ 8.39 miles] — TLD RING TLD_SPEC

Sample ID:	Sample Dates:	Nuclide	Activity
437224	12/14/2016 - 3/15/2017	mR/Std Qtr	27.25
445122	3/15/2017 - 6/14/2017	mR/Std Qtr	21.90
452153	6/14/2017 - 9/13/2017	mR/Std Qtr	21.80
464535	9/13/2017 - 12/13/2017	mR/Std Qtr	23.88

Sample Point 174 [INDICATOR - WNW @ 8.85 miles] — TLD RING TLD_SPEC

Sample ID:	Sample Dates:	Nuclide	Activity
437225	12/14/2016 - 3/15/2017	mR/Std Qtr	26.73
445123	3/15/2017 - 6/14/2017	mR/Std Qtr	20.80
452154	6/14/2017 - 9/13/2017	mR/Std Qtr	20.23
464536	9/13/2017 - 12/13/2017	mR/Std Qtr	21.53

Sample Point 175 [CONTROL - WNW @ 15.5 miles] — TLD RING TLD_CTRL

Sample ID:	Sample Dates:	Nuclide	Activity
437226	12/14/2016 - 3/15/2017	mR/Std Qtr	25.91
445124	3/15/2017 - 6/14/2017	mR/Std Qtr	20.44
452155	6/14/2017 - 9/13/2017	mR/Std Qtr	20.82
464537	9/13/2017 - 12/13/2017	mR/Std Qtr	19.63

Sample Point 177 [INDICATOR - S @ 8.77 miles] — TLD RING TLD_SPEC

Sample ID:	Sample Dates:	Nuclide	Activity
437227	12/14/2016 - 3/15/2017	mR/Std Qtr	14.92
445125	3/15/2017 - 6/14/2017	mR/Std Qtr	11.81
452156	6/14/2017 - 9/13/2017	mR/Std Qtr	12.11
464538	9/13/2017 - 12/13/2017	mR/Std Qtr	12.49

Sample Point 178 [INDICATOR - SE @ 9.36 miles] — TLD RING TLD_SPEC

Sample ID:	Sample Dates:	Nuclide	Activity
437228	12/14/2016 - 3/15/2017	mR/Std Qtr	18.50
445126	3/15/2017 - 6/14/2017	mR/Std Qtr	12.93
452157	6/14/2017 - 9/13/2017	mR/Std Qtr	12.76
464539	9/13/2017 - 12/13/2017	mR/Std Qtr	14.45

Sample Point 180 [INDICATOR - NNE @ 12.7 miles] — TLD RING TLD_SPEC

Sample ID:	Sample Dates:	Nuclide	Activity
437229	12/14/2016 - 3/15/2017	mR/Std Qtr	27.79
445127	3/15/2017 - 6/14/2017	mR/Std Qtr	21.86

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

Sample Point 180 [INDICATOR - NNE @ 12.7 miles] — TLD RING TLD_SPEC

Sample ID:	Sample Dates:	Nuclide	Activity
452158	6/14/2017 - 9/13/2017	mR/Std Qtr	22.54
464540	9/13/2017 - 12/13/2017	mR/Std Qtr	29.82

Sample Point 181 [INDICATOR - NE @ 7.02 miles] — TLD RING TLD_SPEC

Sample ID:	Sample Dates:	Nuclide	Activity
437230	12/14/2016 - 3/15/2017	mR/Std Qtr	19.42
445128	3/15/2017 - 6/14/2017	mR/Std Qtr	14.12
452159	6/14/2017 - 9/13/2017	mR/Std Qtr	14.07
464541	9/13/2017 - 12/13/2017	mR/Std Qtr	15.50

Sample Point 182 [INDICATOR - ENE @ 6.23 miles] — TLD RING TLD_SPEC

Sample ID:	Sample Dates:	Nuclide	Activity
437231	12/14/2016 - 3/15/2017	mR/Std Qtr	19.97
445129	3/15/2017 - 6/14/2017	mR/Std Qtr	16.18
452160	6/14/2017 - 9/13/2017	mR/Std Qtr	15.84
464542	9/13/2017 - 12/13/2017	mR/Std Qtr	15.82

Sample Point 186 [INDICATOR - NNW @ 0.24 miles] — TLD RING TLD_SPEC

Sample ID:	Sample Dates:	Nuclide	Activity
437232	12/14/2016 - 3/15/2017	mR/Std Qtr	17.77
445130	3/15/2017 - 6/14/2017	mR/Std Qtr	15.69
452161	6/14/2017 - 9/13/2017	mR/Std Qtr	13.45
464543	9/13/2017 - 12/13/2017	mR/Std Qtr	15.90

Sample Point 187 [INDICATOR - N @ 0.19 miles] — TLD RING TLD_SPEC

Sample ID:	Sample Dates:	Nuclide	Activity
437233	12/14/2016 - 3/15/2017	mR/Std Qtr	22.75
445131	3/15/2017 - 6/14/2017	mR/Std Qtr	16.71
452162	6/14/2017 - 9/13/2017	mR/Std Qtr	15.00
464544	9/13/2017 - 12/13/2017	mR/Std Qtr	14.44

Sample Point 189 [INDICATOR - SSE @ 0.43 miles] — TLD RING TLD_INNER

Sample ID:	Sample Dates:	Nuclide	Activity
437234	12/14/2016 - 3/15/2017	mR/Std Qtr	17.49
445132	3/15/2017 - 6/14/2017	mR/Std Qtr	14.01
452163	6/14/2017 - 9/13/2017	mR/Std Qtr	13.39
464545	9/13/2017 - 12/13/2017	mR/Std Qtr	14.19

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

Sample Point 190 [INDICATOR - WSW @ 0.37 miles] TLD RING TLD_INNER

Sample ID:	Sample Dates	Nuclide	Activity
437235	12/14/2016 - 3/15/2017	mR/Std Qtr	21.32
445133	3/15/2017 - 6/14/2017	mR/Std Qtr	16.67
452164	6/14/2017 - 9/13/2017	mR/Std Qtr	17.5
464546	9/13/2017 - 12/13/2017	mR/Std Qtr	18.20

Sample Point 191 [INDICATOR - NNE @ 2.84 miles] TLD RING TLD_SPEC

Sample ID:	Sample Dates	Nuclide	Activity
437236	12/14/2016 - 3/15/2017	mR/Std Qtr	18.56
445134	3/15/2017 - 6/14/2017	mR/Std Qtr	14.52
452165	6/14/2017 - 9/13/2017	mR/Std Qtr	15.26
464547	9/13/2017 - 12/13/2017	mR/Std Qtr	15.44

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

Sample Point 102 [CONTROL - WNW @ 9.89 miles]

Sample ID:	Sample Dates		Nuclide	Activity	2 Sigma Error	MDA
432232	1/3/2017 - 1/3/2017	MIXEDBLV	Mn-54	<3.24E+01	0.00E+00	3.24E+01
			Co-58	<2.52E+01	0.00E+00	2.52E+01
			Fe-59	<6.57E+01	0.00E+00	6.57E+01
			Co-60	<2.08E+01	0.00E+00	2.08E+01
			Zn-65	<9.28E+01	0.00E+00	9.28E+01
			Zr-95	<6.27E+01	0.00E+00	6.27E+01
			Nb-95	<2.61E+01	0.00E+00	2.61E+01
			I-131	<3.10E+01	0.00E+00	3.10E+01
			Cs-134	<4.39E+01	0.00E+00	4.39E+01
			Cs-137	<3.29E+01	0.00E+00	3.29E+01
			BaLa-140	<3.34E+01	0.00E+00	3.34E+01
			Be-7	6.31E+02	2.50E+02	3.14E+02
			K-40	1.76E+03	5.95E+02	6.80E+02
435129	2/6/2017 - 2/6/2017	MIXEDBLV	Mn-54	<3.38E+01	0.00E+00	3.38E+01
			Co-58	<3.07E+01	0.00E+00	3.07E+01
			Fe-59	<5.04E+01	0.00E+00	5.04E+01
			Co-60	<2.94E+01	0.00E+00	2.94E+01
			Zn-65	<8.92E+01	0.00E+00	8.92E+01
			Zr-95	<6.41E+01	0.00E+00	6.41E+01
			Nb-95	<3.08E+01	0.00E+00	3.08E+01
			I-131	<3.30E+01	0.00E+00	3.30E+01
			Cs-134	<3.65E+01	0.00E+00	3.65E+01
			Cs-137	<3.52E+01	0.00E+00	3.52E+01
			BaLa-140	<3.21E+01	0.00E+00	3.21E+01
			Be-7	9.61E+02	3.11E+02	3.81E+02
			K-40	2.41E+03	5.50E+02	7.42E+01
437604	3/6/2017 - 3/6/2017	MIXEDBLV	Mn-54	<2.82E+01	0.00E+00	2.82E+01
			Co-58	<3.69E+01	0.00E+00	3.69E+01
			Fe-59	<7.46E+01	0.00E+00	7.46E+01
			Co-60	<4.50E+01	0.00E+00	4.50E+01
			Zn-65	<7.17E+01	0.00E+00	7.17E+01
			Zr-95	<6.04E+01	0.00E+00	6.04E+01
			Nb-95	<3.89E+01	0.00E+00	3.89E+01
			I-131	<3.89E+01	0.00E+00	3.89E+01
			Cs-134	<4.40E+01	0.00E+00	4.40E+01
			Cs-137	<3.80E+01	0.00E+00	3.80E+01
			BaLa-140	<6.12E+01	0.00E+00	6.12E+01

Sample ID:	437604	Sample Dates: 3/6/2017 - 3/6/2017	MIXEDBLV	Nuclide	Activity	2 Sigma Error	MDA
				Be-7	<4.85E+02	0.00E+00	4.85E+02
				K-40	3.11E+03	7.18E+02	3.45E+02
Sample ID:	440031	Sample Dates: 4/3/2017 - 4/3/2017	MIXEDBLV	Nuclide	Activity	2 Sigma Error	MDA
				Mn-54	<4.03E+01	0.00E+00	4.03E+01
				Co-58	<2.64E+01	0.00E+00	2.64E+01
				Fe-59	<5.32E+01	0.00E+00	5.32E+01
				Co-60	<3.20E+01	0.00E+00	3.20E+01
				Zn-65	<6.75E+01	0.00E+00	6.75E+01
				Zr-95	<5.79E+01	0.00E+00	5.79E+01
				Nb-95	<3.31E+01	0.00E+00	3.31E+01
				I-131	<2.67E+01	0.00E+00	2.67E+01
				Cs-134	<3.91E+01	0.00E+00	3.91E+01
				Cs-137	<3.07E+01	0.00E+00	3.07E+01
				BaLa-140	<8.38E+00	0.00E+00	8.38E+00
				Be-7	1.81E+03	3.37E+02	2.24E+02
				K-40	5.43E+03	8.59E+02	2.89E+02
Sample ID:	442337	Sample Dates: 5/1/2017 - 5/1/2017	MIXEDBLV	Nuclide	Activity	2 Sigma Error	MDA
				Mn-54	<2.65E+01	0.00E+00	2.65E+01
				Co-58	<2.29E+01	0.00E+00	2.29E+01
				Fe-59	<2.11E+01	0.00E+00	2.11E+01
				Co-60	<1.73E+01	0.00E+00	1.73E+01
				Zn-65	<6.71E+01	0.00E+00	6.71E+01
				Zr-95	<3.09E+01	0.00E+00	3.09E+01
				Nb-95	<2.03E+01	0.00E+00	2.03E+01
				I-131	<1.92E+01	0.00E+00	1.92E+01
				Cs-134	<2.50E+01	0.00E+00	2.50E+01
				Cs-137	<1.86E+01	0.00E+00	1.86E+01
				BaLa-140	<6.38E+00	0.00E+00	6.38E+00
				Be-7	3.33E+02	1.59E+02	2.15E+02
				K-40	4.33E+03	6.80E+02	2.22E+02
Sample ID:	445350	Sample Dates: 6/5/2017 - 6/5/2017	MIXEDBLV	Nuclide	Activity	2 Sigma Error	MDA
				Mn-54	<2.36E+01	0.00E+00	2.36E+01
				Co-58	<1.85E+01	0.00E+00	1.85E+01
				Fe-59	<3.38E+01	0.00E+00	3.38E+01
				Co-60	<2.73E+01	0.00E+00	2.73E+01
				Zn-65	<4.33E+01	0.00E+00	4.33E+01
				Zr-95	<4.12E+01	0.00E+00	4.12E+01
				Nb-95	<2.16E+01	0.00E+00	2.16E+01
				I-131	<2.37E+01	0.00E+00	2.37E+01
				Cs-134	<2.36E+01	0.00E+00	2.36E+01
				Cs-137	<1.82E+01	0.00E+00	1.83E+01
				BaLa-140	<2.05E+01	0.00E+00	2.05E+01
				Be-7	8.13E+02	2.23E+02	2.69E+02
				K-40	2.84E+03	5.07E+02	3.07E+02
Sample ID:	447832	Sample Dates: 7/3/2017 - 7/3/2017	MIXEDBLV	Nuclide	Activity	2 Sigma Error	MDA
				Mn-54	<2.08E+01	0.00E+00	2.08E+01
				Co-58	<1.74E+01	0.00E+00	1.74E+01
				Fe-59	<3.63E+01	0.00E+00	3.63E+01
				Co-60	<1.86E+01	0.00E+00	1.86E+01
				Zn-65	<4.79E+01	0.00E+00	4.79E+01
				Zr-95	<3.02E+01	0.00E+00	3.02E+01
				Nb-95	<2.43E+01	0.00E+00	2.43E+01
				I-131	<1.76E+01	0.00E+00	1.76E+01
				Cs-134	<2.32E+01	0.00E+00	2.32E+01
				Cs-137	<2.07E+01	0.00E+00	2.07E+01
				BaLa-140	<2.58E+01	0.00E+00	2.58E+01
				Be-7	4.48E+02	1.79E+02	2.45E+02
				K-40	3.16E+03	5.27E+02	3.10E+02
Sample ID:	450231	Sample Dates: 8/7/2017 - 8/7/2017	MIXEDBLV	Nuclide	Activity	2 Sigma Error	MDA
				Mn-54	<1.30E+01	0.00E+00	1.30E+01
				Co-58	<1.07E+01	0.00E+00	1.07E+01
				Fe-59	<2.25E+01	0.00E+00	2.25E+01
				Co-60	<1.24E+01	0.00E+00	1.24E+01

MCGUIRE Radiological Environmental Monitoring Analysis Report - 2017 (Appendix E)

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

Sample Point 102 [CONTROL - WNW @ 9.89 miles]

Sample ID: 450231 **Sample Dates: 8/7/2017 - 8/7/2017** **MIXEDBLV**

Nuclide	Activity	2 Sigma Error	MDA
Zn-65	<2.46E+01	0.00E+00	2.46E+01
Zr-95	<2.33E+01	0.00E+00	2.33E+01
Nb-95	<1.18E+01	0.00E+00	1.18E+01
I-131	<1.01E+01	0.00E+00	1.01E+01
Cs-134	<1.75E+01	0.00E+00	1.75E+01
Cs-137	<1.18E+01	0.00E+00	1.18E+01
BaLa-140	<1.44E+01	0.00E+00	1.44E+01
Be-7	8.33E+02	1.41E+02	1.27E+02
K-40	3.35E+03	4.11E+02	1.47E+02

Sample ID: 452384 **Sample Dates: 9/5/2017 - 9/5/2017** **MIXEDBLV**

Nuclide	Activity	2 Sigma Error	MDA
Mn-54	<1.79E+01	0.00E+00	1.79E+01
Co-58	<1.54E+01	0.00E+00	1.54E+01
Fe-59	<3.01E+01	0.00E+00	3.01E+01
Co-60	<1.95E+01	0.00E+00	1.95E+01
Zn-65	<3.58E+01	0.00E+00	3.58E+01
Zr-95	<3.25E+01	0.00E+00	3.25E+01
Nb-95	<1.48E+01	0.00E+00	1.48E+01
I-131	<1.38E+01	0.00E+00	1.38E+01
Cs-134	<3.02E+01	0.00E+00	3.02E+01
Cs-137	<1.84E+01	0.00E+00	1.84E+01
BaLa-140	<2.19E+01	0.00E+00	2.19E+01
Be-7	6.29E+02	1.65E+02	1.81E+02
K-40	2.54E+03	4.37E+02	2.46E+02

Sample ID: 455099 **Sample Dates: 10/2/2017 - 10/2/2017** **MIXEDBLV**

Nuclide	Activity	2 Sigma Error	MDA
Mn-54	<2.55E+01	0.00E+00	2.55E+01
Co-58	<2.33E+01	0.00E+00	2.33E+01
Fe-59	<5.53E+01	0.00E+00	5.53E+01
Co-60	<2.59E+01	0.00E+00	2.59E+01
Zn-65	<6.91E+01	0.00E+00	6.91E+01
Zr-95	<3.87E+01	0.00E+00	3.87E+01
Nb-95	<2.43E+01	0.00E+00	2.43E+01
I-131	<2.20E+01	0.00E+00	2.20E+01
Cs-134	<3.81E+01	0.00E+00	3.81E+01
Cs-137	<3.02E+01	0.00E+00	3.02E+01
BaLa-140	<3.01E+01	0.00E+00	3.01E+01
Be-7	9.63E+02	2.54E+02	2.84E+02
K-40	4.09E+03	6.98E+02	4.18E+02

Sample ID: 462624 **Sample Dates: 11/6/2017 - 11/6/2017** **MIXEDBLV**

Nuclide	Activity	2 Sigma Error	MDA
Mn-54	<2.97E+01	0.00E+00	2.97E+01
Co-58	<2.27E+01	0.00E+00	2.27E+01
Fe-59	<4.43E+01	0.00E+00	4.43E+01
Co-60	<2.39E+01	0.00E+00	2.39E+01
Zn-65	<6.63E+01	0.00E+00	6.63E+01
Zr-95	<5.05E+01	0.00E+00	5.05E+01
Nb-95	<2.35E+01	0.00E+00	2.35E+01
I-131	<2.50E+01	0.00E+00	2.50E+01
Cs-134	<3.69E+01	0.00E+00	3.69E+01
Cs-137	<2.89E+01	0.00E+00	2.89E+01
BaLa-140	<3.00E+01	0.00E+00	3.00E+01
Be-7	2.00E+03	3.30E+02	2.43E+02
K-40	4.85E+03	7.19E+02	3.60E+02

Sample ID: 464721 **Sample Dates: 12/4/2017 - 12/4/2017** **MIXEDBLV**

Nuclide	Activity	2 Sigma Error	MDA
Mn-54	<2.78E+01	0.00E+00	2.78E+01
Co-58	<3.14E+01	0.00E+00	3.14E+01
Fe-59	<5.28E+01	0.00E+00	5.28E+01
Co-60	<3.69E+01	0.00E+00	3.69E+01
Zn-65	<7.74E+01	0.00E+00	7.74E+01
Zr-95	<5.73E+01	0.00E+00	5.73E+01
Nb-95	<3.10E+01	0.00E+00	3.10E+01
I-131	<3.06E+01	0.00E+00	3.06E+01
Cs-134	<4.52E+01	0.00E+00	4.52E+01
Cs-137	<4.45E+01	0.00E+00	4.45E+01
BaLa-140	<4.15E+01	0.00E+00	4.15E+01
Be-7	1.45E+03	3.09E+02	3.50E+02

MCGUIRE Radiological Environmental Monitoring Analysis Report - 2017 (Appendix E)

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

Sample Point 102 [CONTROL - WNW @ 9.89 miles]

Sample ID:	464721	Sample Dates: 12/4/2017 - 12/4/2017	MIXEDBLV	Nuclide	Activity	2 Sigma Error	MDA
				K-40	4.98E+03	7.79E+02	6.11E+02

Sample Point 120 [INDICATOR - NNE @ 0.46 miles]

Sample ID:	432233	Sample Dates: 1/3/2017 - 1/3/2017	MIXEDBLV	Nuclide	Activity	2 Sigma Error	MDA
				Mn-54	<2.80E+01	0.00E+00	2.80E+01
				Co-58	<2.00E+01	0.00E+00	2.00E+01
				Fe-59	<4.23E+01	0.00E+00	4.23E+01
				Co-60	<2.96E+01	0.00E+00	2.96E+01
				Zn-65	<4.78E+01	0.00E+00	4.78E+01
				Zr-95	<2.65E+01	0.00E+00	2.65E+01
				Nb-95	<2.74E+01	0.00E+00	2.74E+01
				I-131	<2.07E+01	0.00E+00	2.07E+01
				Cs-134	<2.56E+01	0.00E+00	2.56E+01
				Cs-137	<3.06E+01	0.00E+00	3.06E+01
				BaLa-140	<3.45E+01	0.00E+00	3.45E+01
				Be-7	6.89E+02	2.10E+02	2.32E+02
				K-40	3.36E+03	6.46E+02	4.58E+02
Sample ID:	435130	Sample Dates: 2/6/2017 - 2/6/2017	MIXEDBLV	Nuclide	Activity	2 Sigma Error	MDA
				Mn-54	<2.61E+01	0.00E+00	2.61E+01
				Co-58	<2.35E+01	0.00E+00	2.35E+01
				Fe-59	<5.31E+01	0.00E+00	5.31E+01
				Co-60	<3.49E+01	0.00E+00	3.49E+01
				Zn-65	<9.83E+01	0.00E+00	9.83E+01
				Zr-95	<6.12E+01	0.00E+00	6.12E+01
				Nb-95	<3.24E+01	0.00E+00	3.24E+01
				I-131	<3.26E+01	0.00E+00	3.26E+01
				Cs-134	<2.93E+01	0.00E+00	2.93E+01
				Cs-137	<3.36E+01	0.00E+00	3.36E+01
				BaLa-140	<3.78E+01	0.00E+00	3.78E+01
				Be-7	1.24E+03	3.31E+02	3.51E+02
				K-40	5.05E+03	9.04E+02	4.84E+02
Sample ID:	437605	Sample Dates: 3/6/2017 - 3/6/2017	MIXEDBLV	Nuclide	Activity	2 Sigma Error	MDA
				Mn-54	<3.54E+01	0.00E+00	3.54E+01
				Co-58	<2.53E+01	0.00E+00	2.53E+01
				Fe-59	<5.74E+01	0.00E+00	5.74E+01
				Co-60	<3.97E+01	0.00E+00	3.97E+01
				Zn-65	<6.91E+01	0.00E+00	6.91E+01
				Zr-95	<5.42E+01	0.00E+00	5.42E+01
				Nb-95	<2.59E+01	0.00E+00	2.59E+01
				I-131	<2.83E+01	0.00E+00	2.83E+01
				Cs-134	<3.07E+01	0.00E+00	3.07E+01
				Cs-137	<3.44E+01	0.00E+00	3.44E+01
				BaLa-140	<3.98E+01	0.00E+00	3.98E+01
				Be-7	4.85E+02	2.32E+02	3.17E+02
				K-40	4.31E+03	8.05E+02	5.13E+02
Sample ID:	440032	Sample Dates: 4/3/2017 - 4/3/2017	MIXEDBLV	Nuclide	Activity	2 Sigma Error	MDA
				Mn-54	<2.13E+01	0.00E+00	2.13E+01
				Co-58	<1.59E+01	0.00E+00	1.59E+01
				Fe-59	<4.78E+01	0.00E+00	4.78E+01
				Co-60	<2.35E+01	0.00E+00	2.35E+01
				Zn-65	<4.80E+01	0.00E+00	4.80E+01
				Zr-95	<4.16E+01	0.00E+00	4.16E+01
				Nb-95	<2.22E+01	0.00E+00	2.22E+01
				I-131	<1.56E+01	0.00E+00	1.56E+01
				Cs-134	<2.51E+01	0.00E+00	2.51E+01
				Cs-137	<2.37E+01	0.00E+00	2.37E+01
				BaLa-140	<3.90E+01	0.00E+00	3.90E+01
				Be-7	6.82E+02	1.84E+02	1.65E+02
				K-40	5.27E+03	7.92E+02	3.41E+02
Sample ID:	442338	Sample Dates: 5/1/2017 - 5/1/2017	MIXEDBLV	Nuclide	Activity	2 Sigma Error	MDA
				Mn-54	<2.36E+01	0.00E+00	2.36E+01
				Co-58	<2.07E+01	0.00E+00	2.07E+01
				Fe-59	<4.23E+01	0.00E+00	4.23E+01

MCGUIRE Radiological Environmental Monitoring Analysis Report - 2017 (Appendix E)

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

Sample Point 120 [INDICATOR - NNE @ 0.46 miles]

Sample ID: 442338 **Sample Dates: 5/1/2017 - 5/1/2017** **MIXEDBLV**

Nuclide	Activity	2 Sigma Error	MDA
Co-60	<2.20E+01	0.00E+00	2.20E+01
Zn-65	<5.30E+01	0.00E+00	5.30E+01
Zr-95	<4.05E+01	0.00E+00	4.05E+01
Nb-95	<2.16E+01	0.00E+00	2.16E+01
I-131	<1.78E+01	0.00E+00	1.78E+01
Cs-134	<2.35E+01	0.00E+00	2.35E+01
Cs-137	<2.74E+01	0.00E+00	2.74E+01
BaLa-140	<2.49E+01	0.00E+00	2.49E+01
Be-7	3.87E+02	1.64E+02	2.14E+02
K-40	3.66E+03	5.96E+02	4.98E+01

Sample ID: 445351 **Sample Dates: 6/5/2017 - 6/5/2017** **MIXEDBLV**

Nuclide	Activity	2 Sigma Error	MDA
Mn-54	<1.87E+01	0.00E+00	1.87E+01
Co-58	<1.69E+01	0.00E+00	1.69E+01
Fe-59	<3.62E+01	0.00E+00	3.62E+01
Co-60	<2.21E+01	0.00E+00	2.21E+01
Zn-65	<3.57E+01	0.00E+00	3.57E+01
Zr-95	<4.03E+01	0.00E+00	4.03E+01
Nb-95	<1.70E+01	0.00E+00	1.70E+01
I-131	<1.74E+01	0.00E+00	1.74E+01
Cs-134	<2.28E+01	0.00E+00	2.28E+01
Cs-137	<2.23E+01	0.00E+00	2.23E+01
BaLa-140	<1.82E+01	0.00E+00	1.82E+01
Be-7	5.95E+02	1.83E+02	2.20E+02
K-40	2.70E+03	5.02E+02	3.50E+02

Sample ID: 447833 **Sample Dates: 7/3/2017 - 7/3/2017** **MIXEDBLV**

Nuclide	Activity	2 Sigma Error	MDA
Mn-54	<2.57E+01	0.00E+00	2.57E+01
Co-58	<1.96E+01	0.00E+00	1.96E+01
Fe-59	<4.70E+01	0.00E+00	4.70E+01
Co-60	<2.36E+01	0.00E+00	2.36E+01
Zn-65	<5.23E+01	0.00E+00	5.23E+01
Zr-95	<4.17E+01	0.00E+00	4.17E+01
Nb-95	<2.18E+01	0.00E+00	2.18E+01
I-131	<2.46E+01	0.00E+00	2.46E+01
Cs-134	<2.80E+01	0.00E+00	2.80E+01
Cs-137	3.03E+01	1.79E+01	2.45E+01
BaLa-140	<1.77E+01	0.00E+00	1.77E+01
Be-7	8.06E+02	2.19E+02	2.43E+02
K-40	4.62E+03	7.18E+02	3.89E+02

Sample ID: 450232 **Sample Dates: 8/7/2017 - 8/7/2017** **MIXEDBLV**

Nuclide	Activity	2 Sigma Error	MDA
Mn-54	<2.25E+01	0.00E+00	2.25E+01
Co-58	<2.73E+01	0.00E+00	2.73E+01
Fe-59	<5.55E+01	0.00E+00	5.55E+01
Co-60	<2.23E+01	0.00E+00	2.23E+01
Zn-65	<5.41E+01	0.00E+00	5.41E+01
Zr-95	<3.42E+01	0.00E+00	3.42E+01
Nb-95	<2.44E+01	0.00E+00	2.44E+01
I-131	<1.88E+01	0.00E+00	1.88E+01
Cs-134	<2.89E+01	0.00E+00	2.89E+01
Cs-137	<2.77E+01	0.00E+00	2.77E+01
BaLa-140	<2.81E+01	0.00E+00	2.81E+01
Be-7	9.29E+02	2.74E+02	3.35E+02
K-40	3.23E+03	5.95E+02	2.68E+02

Sample ID: 452385 **Sample Dates: 9/5/2017 - 9/5/2017** **MIXEDBLV**

Nuclide	Activity	2 Sigma Error	MDA
Mn-54	<1.94E+01	0.00E+00	1.94E+01
Co-58	<2.44E+01	0.00E+00	2.44E+01
Fe-59	<4.36E+01	0.00E+00	4.36E+01
Co-60	<2.31E+01	0.00E+00	2.31E+01
Zn-65	<6.78E+01	0.00E+00	6.78E+01
Zr-95	<4.22E+01	0.00E+00	4.22E+01
Nb-95	<3.38E+01	0.00E+00	3.38E+01
I-131	<2.67E+01	0.00E+00	2.67E+01
Cs-134	<3.44E+01	0.00E+00	3.44E+01
Cs-137	<3.91E+01	0.00E+00	3.91E+01
BaLa-140	<2.54E+01	0.00E+00	2.54E+01

MCGUIRE Radiological Environmental Monitoring Analysis Report - 2017 (Appendix E)

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

Sample Point 120 [INDICATOR - NNE @ 0.46 miles]

Sample ID:	452385	Sample Dates: 9/5/2017 - 9/5/2017	MIXEDBLV	Nuclide	Activity	2 Sigma Error	MDA
				Be-7	1.90E+03	3.70E+02	3.56E+02
				K-40	4.15E+03	7.16E+02	4.01E+02
Sample ID:	455100	Sample Dates: 10/2/2017 - 10/2/2017	MIXEDBLV	Nuclide	Activity	2 Sigma Error	MDA
				Mn-54	<2.44E+01	0.00E+00	2.44E+01
				Co-58	<2.57E+01	0.00E+00	2.57E+01
				Fe-59	<6.47E+01	0.00E+00	6.47E+01
				Co-60	<3.55E+01	0.00E+00	3.55E+01
				Zn-65	<7.64E+01	0.00E+00	7.64E+01
				Zr-95	<6.65E+01	0.00E+00	6.65E+01
				Nb-95	<2.74E+01	0.00E+00	2.74E+01
				I-131	<2.75E+01	0.00E+00	2.75E+01
				Cs-134	<3.66E+01	0.00E+00	3.66E+01
				Cs-137	<3.38E+01	0.00E+00	3.38E+01
				BaLa-140	<3.80E+01	0.00E+00	3.80E+01
				Be-7	2.48E+03	4.23E+02	3.02E+02
				K-40	3.61E+03	6.83E+02	2.89E+02
Sample ID:	462625	Sample Dates: 11/6/2017 - 11/6/2017	MIXEDBLV	Nuclide	Activity	2 Sigma Error	MDA
				Mn-54	<3.87E+01	0.00E+00	3.87E+01
				Co-58	<3.23E+01	0.00E+00	3.23E+01
				Fe-59	<8.15E+01	0.00E+00	8.15E+01
				Co-60	<4.45E+01	0.00E+00	4.45E+01
				Zn-65	<8.31E+01	0.00E+00	8.31E+01
				Zr-95	<6.91E+01	0.00E+00	6.91E+01
				Nb-95	<3.98E+01	0.00E+00	3.98E+01
				I-131	<3.02E+01	0.00E+00	3.02E+01
				Cs-134	<4.55E+01	0.00E+00	4.55E+01
				Cs-137	<4.10E+01	0.00E+00	4.10E+01
				BaLa-140	<5.54E+01	0.00E+00	5.54E+01
				Be-7	1.82E+03	4.37E+02	4.43E+02
				K-40	4.33E+03	8.92E+02	5.63E+02
Sample ID:	464722	Sample Dates: 12/4/2017 - 12/4/2017	MIXEDBLV	Nuclide	Activity	2 Sigma Error	MDA
				Mn-54	<2.48E+01	0.00E+00	2.48E+01
				Co-58	<2.40E+01	0.00E+00	2.40E+01
				Fe-59	<4.24E+01	0.00E+00	4.24E+01
				Co-60	<2.76E+01	0.00E+00	2.76E+01
				Zn-65	<5.41E+01	0.00E+00	5.41E+01
				Zr-95	<3.95E+01	0.00E+00	3.95E+01
				Nb-95	<2.38E+01	0.00E+00	2.38E+01
				I-131	<2.11E+01	0.00E+00	2.11E+01
				Cs-134	<2.72E+01	0.00E+00	2.72E+01
				Cs-137	<2.38E+01	0.00E+00	2.38E+01
				BaLa-140	<2.96E+01	0.00E+00	2.96E+01
				Be-7	5.70E+02	2.02E+02	2.87E+02
				K-40	5.52E+03	7.23E+02	4.35E+02

Sample Point 125 [INDICATOR - SW @ 0.38 miles]

Sample ID:	432234	Sample Dates: 1/3/2017 - 1/3/2017	MIXEDBLV	Nuclide	Activity	2 Sigma Error	MDA
				Mn-54	<3.92E+01	0.00E+00	3.92E+01
				Co-58	<3.58E+01	0.00E+00	3.58E+01
				Fe-59	<9.08E+01	0.00E+00	9.08E+01
				Co-60	<3.64E+01	0.00E+00	3.64E+01
				Zn-65	<6.33E+01	0.00E+00	6.33E+01
				Zr-95	<7.16E+01	0.00E+00	7.16E+01
				Nb-95	<3.58E+01	0.00E+00	3.58E+01
				I-131	<3.58E+01	0.00E+00	3.58E+01
				Cs-134	<4.56E+01	0.00E+00	4.56E+01
				Cs-137	<3.94E+01	0.00E+00	3.94E+01
				BaLa-140	<3.52E+01	0.00E+00	3.52E+01
				Be-7	6.54E+02	2.85E+02	3.81E+02
				K-40	5.04E+03	9.54E+02	6.79E+02
Sample ID:	435131	Sample Dates: 2/6/2017 - 2/6/2017	MIXEDBLV	Nuclide	Activity	2 Sigma Error	MDA
				Mn-54	<3.53E+01	0.00E+00	3.53E+01
				Co-58	<3.04E+01	0.00E+00	3.04E+01

MCGUIRE Radiological Environmental Monitoring Analysis Report - 2017 (Appendix E)

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

Sample Point 125 [INDICATOR - SW @ 0.38 miles]

Sample ID: 435131 **Sample Dates: 2/6/2017 - 2/6/2017** **MIXEDBLV**

Nuclide	Activity	2 Sigma Error	MDA
Fe-59	<6.10E+01	0.00E+00	6.10E+01
Co-60	<2.64E+01	0.00E+00	2.64E+01
Zn-65	<8.21E+01	0.00E+00	8.21E+01
Zr-95	<3.56E+01	0.00E+00	3.56E+01
Nb-95	<3.31E+01	0.00E+00	3.31E+01
I-131	<2.25E+01	0.00E+00	2.25E+01
Cs-134	<3.81E+01	0.00E+00	3.81E+01
Cs-137	<3.30E+01	0.00E+00	3.30E+01
BaLa-140	<3.20E+01	0.00E+00	3.20E+01
Be-7	7.72E+02	2.83E+02	3.55E+02
K-40	3.86E+03	8.15E+02	6.65E+02

Sample ID: 437606 **Sample Dates: 3/6/2017 - 3/6/2017** **MIXEDBLV**

Nuclide	Activity	2 Sigma Error	MDA
Mn-54	<4.04E+01	0.00E+00	4.04E+01
Co-58	<3.31E+01	0.00E+00	3.31E+01
Fe-59	<7.15E+01	0.00E+00	7.15E+01
Co-60	<3.83E+01	0.00E+00	3.83E+01
Zn-65	<8.07E+01	0.00E+00	8.07E+01
Zr-95	<4.84E+01	0.00E+00	4.84E+01
Nb-95	<2.50E+01	0.00E+00	2.50E+01
I-131	<2.98E+01	0.00E+00	2.98E+01
Cs-134	<4.09E+01	0.00E+00	4.09E+01
Cs-137	<3.67E+01	0.00E+00	3.67E+01
BaLa-140	<3.41E+01	0.00E+00	3.41E+01
Be-7	5.49E+02	2.57E+02	3.48E+02
K-40	4.57E+03	8.41E+02	3.60E+02

Sample ID: 440033 **Sample Dates: 4/3/2017 - 4/3/2017** **MIXEDBLV**

Nuclide	Activity	2 Sigma Error	MDA
Mn-54	<4.48E+01	0.00E+00	4.48E+01
Co-58	<3.92E+01	0.00E+00	3.92E+01
Fe-59	<7.52E+01	0.00E+00	7.52E+01
Co-60	<5.19E+01	0.00E+00	5.19E+01
Zn-65	<9.56E+01	0.00E+00	9.56E+01
Zr-95	<6.11E+01	0.00E+00	6.11E+01
Nb-95	<4.25E+01	0.00E+00	4.25E+01
I-131	<3.51E+01	0.00E+00	3.51E+01
Cs-134	<4.66E+01	0.00E+00	4.66E+01
Cs-137	<4.50E+01	0.00E+00	4.50E+01
BaLa-140	<1.18E+01	0.00E+00	1.18E+01
Be-7	6.64E+02	2.79E+02	3.52E+02
K-40	4.61E+03	9.00E+02	3.84E+02

Sample ID: 442339 **Sample Dates: 5/1/2017 - 5/1/2017** **MIXEDBLV**

Nuclide	Activity	2 Sigma Error	MDA
Mn-54	<2.92E+01	0.00E+00	2.92E+01
Co-58	<2.53E+01	0.00E+00	2.53E+01
Fe-59	<4.35E+01	0.00E+00	4.35E+01
Co-60	<3.53E+01	0.00E+00	3.53E+01
Zn-65	<4.40E+01	0.00E+00	4.40E+01
Zr-95	<5.88E+01	0.00E+00	5.88E+01
Nb-95	<2.67E+01	0.00E+00	2.67E+01
I-131	<2.49E+01	0.00E+00	2.49E+01
Cs-134	<3.86E+01	0.00E+00	3.86E+01
Cs-137	<2.73E+01	0.00E+00	2.73E+01
BaLa-140	<3.20E+01	0.00E+00	3.20E+01
Be-7	5.12E+02	1.92E+02	2.24E+02
K-40	3.79E+03	6.90E+02	3.15E+02

Sample ID: 445352 **Sample Dates: 6/5/2017 - 6/5/2017** **MIXEDBLV**

Nuclide	Activity	2 Sigma Error	MDA
Mn-54	<1.93E+01	0.00E+00	1.93E+01
Co-58	<1.51E+01	0.00E+00	1.51E+01
Fe-59	<3.43E+01	0.00E+00	3.43E+01
Co-60	<1.62E+01	0.00E+00	1.62E+01
Zn-65	<3.67E+01	0.00E+00	3.67E+01
Zr-95	<3.03E+01	0.00E+00	3.03E+01
Nb-95	<2.16E+01	0.00E+00	2.16E+01
I-131	<1.32E+01	0.00E+00	1.32E+01
Cs-134	<2.52E+01	0.00E+00	2.52E+01
Cs-137	<1.94E+01	0.00E+00	1.94E+01

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

Sample Point 125 [INDICATOR - SW @ 0.38 miles]

Sample ID: 445352 **Sample Dates: 6/5/2017 - 6/5/2017** **MIXEDBLV**

Nuclide	Activity	2 Sigma Error	MDA
BaLa-140	<2.39E+01	0.00E+00	2.39E+01
Be-7	9.30E+02	2.05E+02	1.96E+02
K-40	2.84E+03	5.01E+02	3.01E+02

Sample ID: 447834 **Sample Dates: 7/3/2017 - 7/3/2017** **MIXEDBLV**

Nuclide	Activity	2 Sigma Error	MDA
Mn-54	<1.87E+01	0.00E+00	1.87E+01
Co-58	<1.52E+01	0.00E+00	1.52E+01
Fe-59	<3.80E+01	0.00E+00	3.80E+01
Co-60	<2.43E+01	0.00E+00	2.43E+01
Zn-65	<4.41E+01	0.00E+00	4.41E+01
Zr-95	<1.78E+01	0.00E+00	1.78E+01
Nb-95	<1.31E+01	0.00E+00	1.31E+01
I-131	<1.65E+01	0.00E+00	1.65E+01
Cs-134	<1.52E+01	0.00E+00	1.52E+01
Cs-137	<1.54E+01	0.00E+00	1.54E+01
BaLa-140	<2.01E+01	0.00E+00	2.01E+01
Be-7	6.86E+02	1.78E+02	1.93E+02
K-40	3.43E+03	5.50E+02	3.23E+02

Sample ID: 450233 **Sample Dates: 8/7/2017 - 8/7/2017** **MIXEDBLV**

Nuclide	Activity	2 Sigma Error	MDA
Mn-54	<2.19E+01	0.00E+00	2.19E+01
Co-58	<1.43E+01	0.00E+00	1.43E+01
Fe-59	<3.65E+01	0.00E+00	3.65E+01
Co-60	<1.61E+01	0.00E+00	1.61E+01
Zn-65	<3.40E+01	0.00E+00	3.40E+01
Zr-95	<2.92E+01	0.00E+00	2.92E+01
Nb-95	<1.83E+01	0.00E+00	1.83E+01
I-131	<1.47E+01	0.00E+00	1.47E+01
Cs-134	<2.17E+01	0.00E+00	2.17E+01
Cs-137	<2.06E+01	0.00E+00	2.06E+01
BaLa-140	<5.08E+00	0.00E+00	5.08E+00
Be-7	9.67E+02	2.07E+02	1.94E+02
K-40	3.57E+03	5.70E+02	3.16E+02

Sample ID: 452386 **Sample Dates: 9/5/2017 - 9/5/2017** **MIXEDBLV**

Nuclide	Activity	2 Sigma Error	MDA
Mn-54	<1.79E+01	0.00E+00	1.79E+01
Co-58	<2.25E+01	0.00E+00	2.25E+01
Fe-59	<4.63E+01	0.00E+00	4.63E+01
Co-60	<2.17E+01	0.00E+00	2.17E+01
Zn-65	<5.40E+01	0.00E+00	5.40E+01
Zr-95	<3.37E+01	0.00E+00	3.37E+01
Nb-95	<2.10E+01	0.00E+00	2.10E+01
I-131	<1.58E+01	0.00E+00	1.58E+01
Cs-134	<1.52E+01	0.00E+00	1.52E+01
Cs-137	<2.40E+01	0.00E+00	2.40E+01
BaLa-140	<1.96E+01	0.00E+00	1.96E+01
Be-7	2.02E+03	3.20E+02	2.20E+02
K-40	3.04E+03	5.83E+02	5.02E+02

Sample ID: 455101 **Sample Dates: 10/2/2017 - 10/2/2017** **MIXEDBLV**

Nuclide	Activity	2 Sigma Error	MDA
Mn-54	<2.39E+01	0.00E+00	2.39E+01
Co-58	<2.37E+01	0.00E+00	2.37E+01
Fe-59	<4.30E+01	0.00E+00	4.30E+01
Co-60	<2.44E+01	0.00E+00	2.44E+01
Zn-65	<4.85E+01	0.00E+00	4.85E+01
Zr-95	<4.37E+01	0.00E+00	4.37E+01
Nb-95	<1.70E+01	0.00E+00	1.70E+01
I-131	<2.10E+01	0.00E+00	2.10E+01
Cs-134	<3.04E+01	0.00E+00	3.04E+01
Cs-137	<2.96E+01	0.00E+00	2.96E+01
BaLa-140	<2.18E+01	0.00E+00	2.18E+01
Be-7	1.77E+03	3.38E+02	3.30E+02
K-40	3.73E+03	6.77E+02	5.38E+02

Sample ID: 462626 **Sample Dates: 11/6/2017 - 11/6/2017** **MIXEDBLV**

Nuclide	Activity	2 Sigma Error	MDA
Mn-54	<3.99E+01	0.00E+00	3.99E+01
Co-58	<3.78E+01	0.00E+00	3.78E+01
Fe-59	<6.94E+01	0.00E+00	6.94E+01

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

Sample Point 125 [INDICATOR - SW @ 0.38 miles]

Sample ID:	462626	Sample Dates: 11/6/2017 - 11/6/2017	MIXEDBLV	Nuclide	Activity	2 Sigma Error	MDA
				Co-60	<4.19E+01	0.00E+00	4.19E+01
				Zn-65	<9.28E+01	0.00E+00	9.28E+01
				Zr-95	<6.81E+01	0.00E+00	6.81E+01
				Nb-95	<3.12E+01	0.00E+00	3.12E+01
				I-131	<3.20E+01	0.00E+00	3.20E+01
				Cs-134	<4.31E+01	0.00E+00	4.31E+01
				Cs-137	<4.42E+01	0.00E+00	4.42E+01
				BaLa-140	<4.29E+01	0.00E+00	4.29E+01
				Be-7	1.68E+03	4.47E+02	5.24E+02
				K-40	4.67E+03	8.83E+02	4.10E+02
Sample ID:	464723	Sample Dates: 12/4/2017 - 12/4/2017	MIXEDBLV	Nuclide	Activity	2 Sigma Error	MDA
				Mn-54	<3.22E+01	0.00E+00	3.22E+01
				Co-58	<3.54E+01	0.00E+00	3.54E+01
				Fe-59	<5.79E+01	0.00E+00	5.79E+01
				Co-60	<3.98E+01	0.00E+00	3.98E+01
				Zn-65	<7.05E+01	0.00E+00	7.05E+01
				Zr-95	<5.73E+01	0.00E+00	5.73E+01
				Nb-95	<3.61E+01	0.00E+00	3.61E+01
				I-131	<3.10E+01	0.00E+00	3.10E+01
				Cs-134	<4.06E+01	0.00E+00	4.06E+01
				Cs-137	<3.39E+01	0.00E+00	3.39E+01
				BaLa-140	<3.46E+01	0.00E+00	3.46E+01
				Be-7	8.01E+02	2.89E+02	4.13E+02
				K-40	7.08E+03	9.30E+02	4.56E+02

Sample Point 193 [INDICATOR - N @ 0.19 miles]

Sample ID:	432235	Sample Dates: 1/3/2017 - 1/3/2017	MIXEDBLV	Nuclide	Activity	2 Sigma Error	MDA
				Mn-54	<2.03E+01	0.00E+00	2.03E+01
				Co-58	<2.29E+01	0.00E+00	2.29E+01
				Fe-59	<5.20E+01	0.00E+00	5.20E+01
				Co-60	<1.38E+01	0.00E+00	1.38E+01
				Zn-65	<5.65E+01	0.00E+00	5.65E+01
				Zr-95	<4.10E+01	0.00E+00	4.10E+01
				Nb-95	<1.93E+01	0.00E+00	1.93E+01
				I-131	<1.73E+01	0.00E+00	1.73E+01
				Cs-134	<2.47E+01	0.00E+00	2.47E+01
				Cs-137	<2.25E+01	0.00E+00	2.25E+01
				BaLa-140	<2.17E+01	0.00E+00	2.17E+01
				Be-7	6.53E+02	2.12E+02	2.62E+02
				K-40	3.27E+03	5.78E+02	2.69E+02
Sample ID:	435132	Sample Dates: 2/6/2017 - 2/6/2017	MIXEDBLV	Nuclide	Activity	2 Sigma Error	MDA
				Mn-54	<2.61E+01	0.00E+00	2.61E+01
				Co-58	<2.56E+01	0.00E+00	2.56E+01
				Fe-59	<5.00E+01	0.00E+00	5.00E+01
				Co-60	<2.62E+01	0.00E+00	2.62E+01
				Zn-65	<4.97E+01	0.00E+00	4.97E+01
				Zr-95	<3.33E+01	0.00E+00	3.33E+01
				Nb-95	<2.73E+01	0.00E+00	2.73E+01
				I-131	<1.85E+01	0.00E+00	1.85E+01
				Cs-134	<3.38E+01	0.00E+00	3.38E+01
				Cs-137	<1.91E+01	0.00E+00	1.91E+01
				BaLa-140	<1.94E+01	0.00E+00	1.94E+01
				Be-7	1.02E+03	2.56E+02	2.58E+02
				K-40	3.80E+03	7.05E+02	4.80E+02
Sample ID:	437607	Sample Dates: 3/6/2017 - 3/6/2017	MIXEDBLV	Nuclide	Activity	2 Sigma Error	MDA
				Mn-54	<2.37E+01	0.00E+00	2.37E+01
				Co-58	<2.20E+01	0.00E+00	2.20E+01
				Fe-59	<3.29E+01	0.00E+00	3.29E+01
				Co-60	<2.14E+01	0.00E+00	2.14E+01
				Zn-65	<5.65E+01	0.00E+00	5.65E+01
				Zr-95	<5.27E+01	0.00E+00	5.27E+01
				Nb-95	<2.72E+01	0.00E+00	2.72E+01
				I-131	<2.36E+01	0.00E+00	2.36E+01
				Cs-134	<2.96E+01	0.00E+00	2.96E+01

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

Sample Point 193 [INDICATOR - N @ 0.19 miles]

Sample ID:	437607	Sample Dates: 3/6/2017 - 3/6/2017	MIXEDBLV	Nuclide	Activity	2 Sigma Error	MDA
				Cs-137	<2.68E+01	0.00E+00	2.68E+01
				BaLa-140	<2.13E+01	0.00E+00	2.13E+01
				Be-7	4.91E+02	2.37E+02	3.34E+02
				K-40	3.73E+03	7.03E+02	4.63E+02
Sample ID:	**440034**	**Sample Dates: 4/3/2017 - 4/3/2017**	**MIXEDBLV**	**Nuclide**	**Activity**	**2 Sigma Error**	**MDA**
				Mn-54	<3.59E+01	0.00E+00	3.59E+01
				Co-58	<2.18E+01	0.00E+00	2.18E+01
				Fe-59	<6.57E+01	0.00E+00	6.57E+01
				Co-60	<3.53E+01	0.00E+00	3.53E+01
				Zn-65	<7.43E+01	0.00E+00	7.43E+01
				Zr-95	<4.72E+01	0.00E+00	4.72E+01
				Nb-95	<3.72E+01	0.00E+00	3.72E+01
				I-131	<2.82E+01	0.00E+00	2.82E+01
				Cs-134	<3.11E+01	0.00E+00	3.11E+01
				Cs-137	<3.81E+01	0.00E+00	3.81E+01
				BaLa-140	<9.16E+00	0.00E+00	9.16E+00
				Be-7	1.37E+03	3.40E+02	3.56E+02
				K-40	3.90E+03	7.71E+02	5.10E+02
Sample ID:	**442340**	**Sample Dates: 5/1/2017 - 5/1/2017**	**MIXEDBLV**	**Nuclide**	**Activity**	**2 Sigma Error**	**MDA**
				Mn-54	<2.27E+01	0.00E+00	2.27E+01
				Co-58	<1.94E+01	0.00E+00	1.94E+01
				Fe-59	<5.10E+01	0.00E+00	5.10E+01
				Co-60	<2.04E+01	0.00E+00	2.04E+01
				Zn-65	<5.24E+01	0.00E+00	5.24E+01
				Zr-95	<4.20E+01	0.00E+00	4.20E+01
				Nb-95	<2.64E+01	0.00E+00	2.64E+01
				I-131	<2.14E+01	0.00E+00	2.14E+01
				Cs-134	<2.44E+01	0.00E+00	2.44E+01
				Cs-137	<2.01E+01	0.00E+00	2.01E+01
				BaLa-140	<6.47E+00	0.00E+00	6.47E+00
				Be-7	4.03E+02	2.12E+02	3.10E+02
				K-40	5.45E+03	8.16E+02	4.44E+02
Sample ID:	**445353**	**Sample Dates: 6/5/2017 - 6/5/2017**	**MIXEDBLV**	**Nuclide**	**Activity**	**2 Sigma Error**	**MDA**
				Mn-54	<1.99E+01	0.00E+00	1.99E+01
				Co-58	<1.88E+01	0.00E+00	1.88E+01
				Fe-59	<5.06E+01	0.00E+00	5.06E+01
				Co-60	<2.10E+01	0.00E+00	2.10E+01
				Zn-65	<3.00E+01	0.00E+00	3.00E+01
				Zr-95	<3.64E+01	0.00E+00	3.64E+01
				Nb-95	<2.01E+01	0.00E+00	2.01E+01
				I-131	<1.50E+01	0.00E+00	1.50E+01
				Cs-134	<1.96E+01	0.00E+00	1.96E+01
				Cs-137	<2.15E+01	0.00E+00	2.15E+01
				BaLa-140	<1.80E+01	0.00E+00	1.80E+01
				Be-7	1.24E+03	2.41E+02	2.06E+02
				K-40	4.78E+03	6.83E+02	2.40E+02
Sample ID:	**447835**	**Sample Dates: 7/3/2017 - 7/3/2017**	**MIXEDBLV**	**Nuclide**	**Activity**	**2 Sigma Error**	**MDA**
				Mn-54	<2.10E+01	0.00E+00	2.10E+01
				Co-58	<1.69E+01	0.00E+00	1.69E+01
				Fe-59	<3.37E+01	0.00E+00	3.37E+01
				Co-60	<1.78E+01	0.00E+00	1.78E+01
				Zn-65	<3.10E+01	0.00E+00	3.10E+01
				Zr-95	<3.25E+01	0.00E+00	3.25E+01
				Nb-95	<1.82E+01	0.00E+00	1.82E+01
				I-131	<1.74E+01	0.00E+00	1.74E+01
				Cs-134	<1.97E+01	0.00E+00	1.97E+01
				Cs-137	<1.71E+01	0.00E+00	1.71E+01
				BaLa-140	<2.19E+01	0.00E+00	2.19E+01
				Be-7	4.68E+02	1.56E+02	1.94E+02
				K-40	5.92E+03	7.47E+02	2.10E+02
Sample ID:	**450234**	**Sample Dates: 8/7/2017 - 8/7/2017**	**MIXEDBLV**	**Nuclide**	**Activity**	**2 Sigma Error**	**MDA**
				Mn-54	<1.71E+01	0.00E+00	1.71E+01
				Co-58	<1.43E+01	0.00E+00	1.43E+01

MCGUIRE Radiological Environmental Monitoring Analysis Report - 2017 (Appendix E)

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

Sample Point 193 [INDICATOR - N @ 0.19 miles]

Sample ID: 450234 **Sample Dates: 8/7/2017 - 8/7/2017** **MIXEDBLV**

Nuclide	Activity	2 Sigma Error	MDA
Fe-59	<3.85E+01	0.00E+00	3.85E+01
Co-60	<1.81E+01	0.00E+00	1.81E+01
Zn-65	<3.68E+01	0.00E+00	3.68E+01
Zr-95	<2.64E+01	0.00E+00	2.64E+01
Nb-95	<1.70E+01	0.00E+00	1.70E+01
I-131	<1.54E+01	0.00E+00	1.54E+01
Cs-134	<1.92E+01	0.00E+00	1.92E+01
Cs-137	<1.58E+01	0.00E+00	1.58E+01
BaLa-140	<1.76E+01	0.00E+00	1.76E+01
Be-7	4.57E+02	1.64E+02	2.11E+02
K-40	4.03E+03	5.93E+02	4.09E+01

Sample ID: 452387 **Sample Dates: 9/5/2017 - 9/5/2017** **MIXEDBLV**

Nuclide	Activity	2 Sigma Error	MDA
Mn-54	<2.06E+01	0.00E+00	2.06E+01
Co-58	<1.61E+01	0.00E+00	1.61E+01
Fe-59	<2.78E+01	0.00E+00	2.78E+01
Co-60	<1.96E+01	0.00E+00	1.96E+01
Zn-65	<4.33E+01	0.00E+00	4.33E+01
Zr-95	<2.93E+01	0.00E+00	2.93E+01
Nb-95	<1.97E+01	0.00E+00	1.97E+01
I-131	<1.17E+01	0.00E+00	1.17E+01
Cs-134	<2.25E+01	0.00E+00	2.25E+01
Cs-137	<2.29E+01	0.00E+00	2.29E+01
BaLa-140	<5.16E+00	0.00E+00	5.16E+00
Be-7	9.19E+02	2.13E+02	2.23E+02
K-40	5.37E+03	7.30E+02	3.16E+02

Sample ID: 455102 **Sample Dates: 10/2/2017 - 10/2/2017** **MIXEDBLV**

Nuclide	Activity	2 Sigma Error	MDA
Mn-54	<2.69E+01	0.00E+00	2.69E+01
Co-58	<2.20E+01	0.00E+00	2.20E+01
Fe-59	<3.57E+01	0.00E+00	3.57E+01
Co-60	<2.82E+01	0.00E+00	2.82E+01
Zn-65	<3.48E+01	0.00E+00	3.48E+01
Zr-95	<5.10E+01	0.00E+00	5.10E+01
Nb-95	<3.16E+01	0.00E+00	3.16E+01
I-131	<2.01E+01	0.00E+00	2.01E+01
Cs-134	<3.55E+01	0.00E+00	3.55E+01
Cs-137	<3.07E+01	0.00E+00	3.07E+01
BaLa-140	<3.25E+01	0.00E+00	3.25E+01
Be-7	1.87E+03	3.31E+02	2.21E+02
K-40	4.19E+03	7.45E+02	5.26E+02

Sample ID: 462627 **Sample Dates: 11/6/2017 - 11/6/2017** **MIXEDBLV**

Nuclide	Activity	2 Sigma Error	MDA
Mn-54	<3.29E+01	0.00E+00	3.29E+01
Co-58	<3.58E+01	0.00E+00	3.58E+01
Fe-59	<5.54E+01	0.00E+00	5.54E+01
Co-60	<3.08E+01	0.00E+00	3.08E+01
Zn-65	<6.68E+01	0.00E+00	6.68E+01
Zr-95	<4.98E+01	0.00E+00	4.98E+01
Nb-95	<3.71E+01	0.00E+00	3.71E+01
I-131	<3.14E+01	0.00E+00	3.14E+01
Cs-134	<2.77E+01	0.00E+00	2.77E+01
Cs-137	<3.20E+01	0.00E+00	3.20E+01
BaLa-140	<2.35E+01	0.00E+00	2.35E+01
Be-7	6.43E+02	2.47E+02	3.14E+02
K-40	4.48E+03	7.71E+02	6.98E+01

Sample ID: 464724 **Sample Dates: 12/4/2017 - 12/4/2017** **MIXEDBLV**

Nuclide	Activity	2 Sigma Error	MDA
Mn-54	<2.07E+01	0.00E+00	2.07E+01
Co-58	<2.40E+01	0.00E+00	2.40E+01
Fe-59	<3.70E+01	0.00E+00	3.70E+01
Co-60	<3.05E+01	0.00E+00	3.05E+01
Zn-65	<6.05E+01	0.00E+00	6.05E+01
Zr-95	<3.97E+01	0.00E+00	3.97E+01
Nb-95	<2.26E+01	0.00E+00	2.26E+01
I-131	<2.60E+01	0.00E+00	2.60E+01
Cs-134	<2.45E+01	0.00E+00	2.45E+01
Cs-137	<2.80E+01	0.00E+00	2.80E+01

MCGUIRE Radiological Environmental Monitoring Analysis Report - 2017 (Appendix E)

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

Sample Point 193 [INDICATOR - N @ 0.19 miles]

Sample ID:	464724	Sample Dates: 12/4/2017 - 12/4/2017	MIXEDBLV	Nuclide	Activity	2 Sigma Error	MDA
				BaLa-140	<2.72E+01	0.00E+00	2.72E+01
				Be-7	6.30E+02	1.88E+02	2.44E+02
				K-40	5.00E+03	6.65E+02	3.17E+02

APPENDIX F

ERRATA TO PREVIOUS REPORTS

APPENDIX F

ERRATA TO THE 2017 AREOR

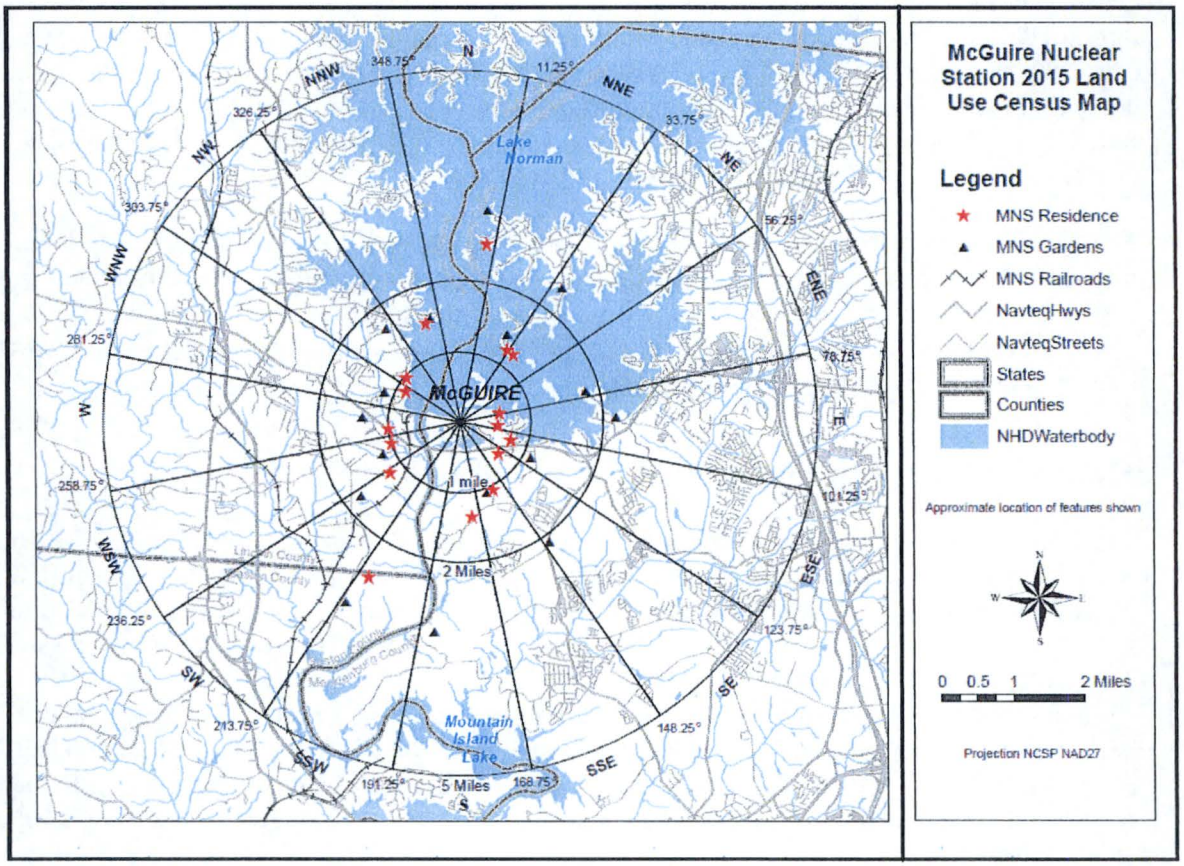
McGuire AREOR: 2015, 2016 Mapping Grid

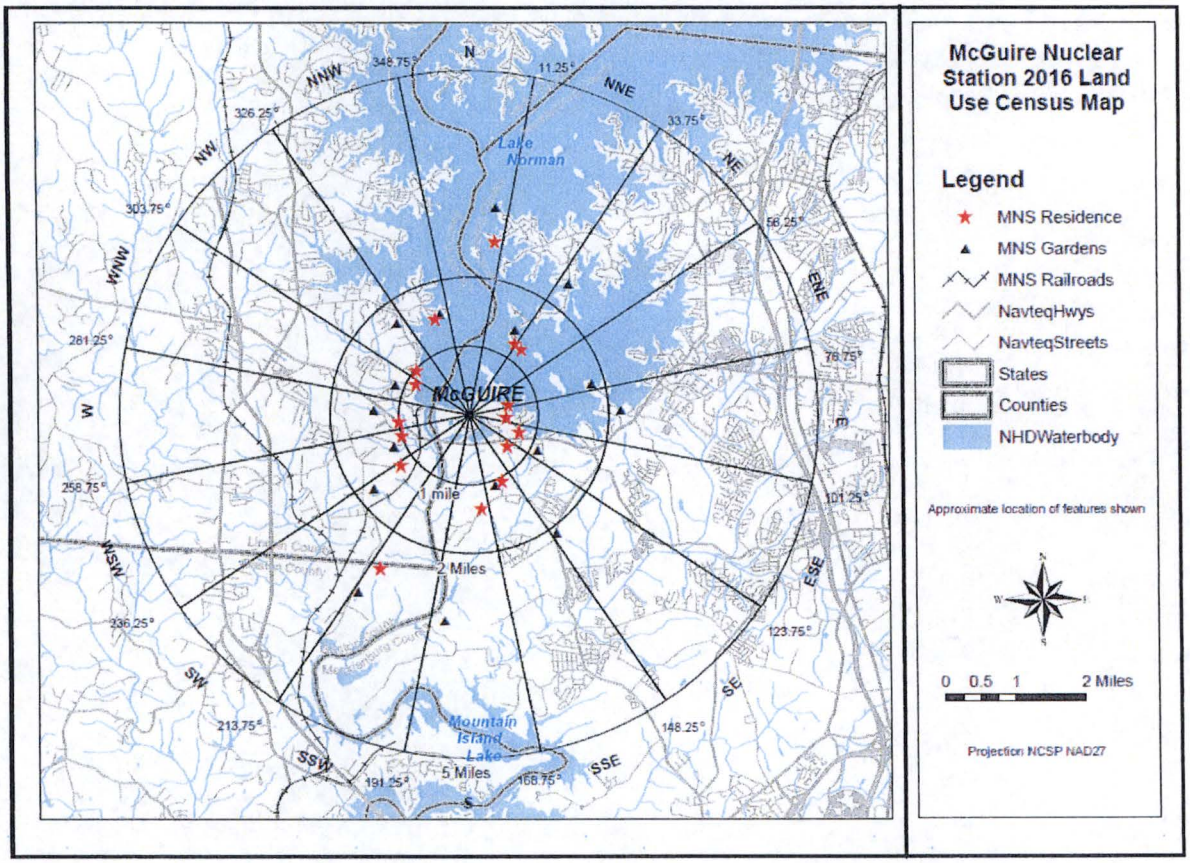
During the creation of the 2017 McGuire Land Use Census (LUC) map, it was determined the sector grid was off by 1.2 degrees. The 1.2 degree variance associated with the 2017 map indicated in the McGuire 2017 AREOR (Figure 3.10) was mitigated prior to generating the 2017 map. The 1.2 degree variance in the 2015 and 2016 maps did not show a clear visual representation of the nearest residences and nearest gardens. The 1.2 degree variance did not cause the misidentification of the nearest residence or nearest garden in any sector because a compass rose was used in the field to determine the proper sector. The 2015 and 2016 McGuire AREOR LUC maps did indicate the 1.2 degree variance. The 2015 and 2016 land use data tables (Table 3.10) were not affected by the sector grid variance.

The visual representation of the attributes closest to the sector lines were the only way these maps were affected. The map vendor indicated the variance was attributable to the differences in some land elevations in the piedmont regions of North and South Carolina. The 1.2 degree variance was corrected and updated on the 2015 and 2016 McGuire Land Use Census maps which are indicated in this appendix (NCR # 02163450).

McGuire AREOR: 2015, 2016 Nearest SW Sector Residence

The 2015 MNS LUC census identified the nearest SW sector residence at 1.85 miles. The nearest SW sector residence was again identified by the 2016 census at 1.85 miles. During the 2017 census, the nearest SW sector residence previously identified by the 2015 and 2016 census at 1.85 miles was no longer occupied. The 2017 census identified the nearest SW sector residence at 1.88 miles. It was determined during the 2017 census the 2015 and 2016 nearest SW sector residence mileage was erroneous and should have indicated 1.23 miles. The typographical error was present in the MNS 2015 AREOR Table 3.10 "McGuire 2015 Land Use Census Results" and in the MNS 2016 AREOR Table 3.10 "McGuire 2016 Land Use Census Results" and is updated to correctly indicate the nearest 2015 and nearest 2016 SW sector resident was at 1.23 miles. (NCR # 02141586).


McGuire Nuclear Station 2015 Land Use Census Map
Legend
MNS Residence
MNS Gardens
MNS Railroads
NavteqHwys
NavteqStreets
States
Counties
NHDWaterbody
Approximate location of features shown
0 0.5 1 2 Miles
Projection NCSP NAD27
McGUIRE
Lake Norman
Mountain Island Lake
1 mile
2 Miles
5 Miles
N
NNE
NE
ENE
E
ESE
SE
SSE
S
SSW
SW
WSW
W
WNW
NW
NNW
348.75°
11.25°
33.75°
56.25°
78.75°
101.25°
123.75°
148.25°
168.75°
191.25°
213.75°
236.25°
258.75°
281.25°
303.75°
326.25°


McGuire Nuclear Station 2016 Land Use Census Map
Legend
MNS Residence
MNS Gardens
MNS Railroads
NavteqHwys
NavteqStreets
States
Counties
NHDWaterbody
Approximate location of features shown
0 0.5 1 2 Miles
Projection NCSP NAD27
N
NNE
NE
ENE
E
ESE
SE
SSE
S
SSW
SW
WSW
W
WNW
NW
NNW
348.75°
11.25°
33.75°
56.25°
78.75°
101.25°
123.75°
148.25°
168.75°
191.25°
213.75°
236.25°
258.75°
281.25°
303.75°
326.25°
McGUIRE
1 mile
2 Miles
5 Miles
Lake Norman
Mountain Island Lake