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**Subject:** Duke Energy Carolinas, LLC  
McGuire Nuclear Station, Units 1 and 2  
Docket Nos. 50-369 and 50-370  
2012 Annual Radiological Environmental Operating Report

Pursuant to the requirements of Technical Specification 5.6.2 and Selected Licensee Commitment 16.11.16, please find attached the 2012 Annual Radiological Environmental Operating Report. This report covers operation of Units 1 and 2 during the 2012 calendar year.

Questions regarding this report should be directed to Kay Crane, McGuire Regulatory Affairs at (980) 875-4306.

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Page 2

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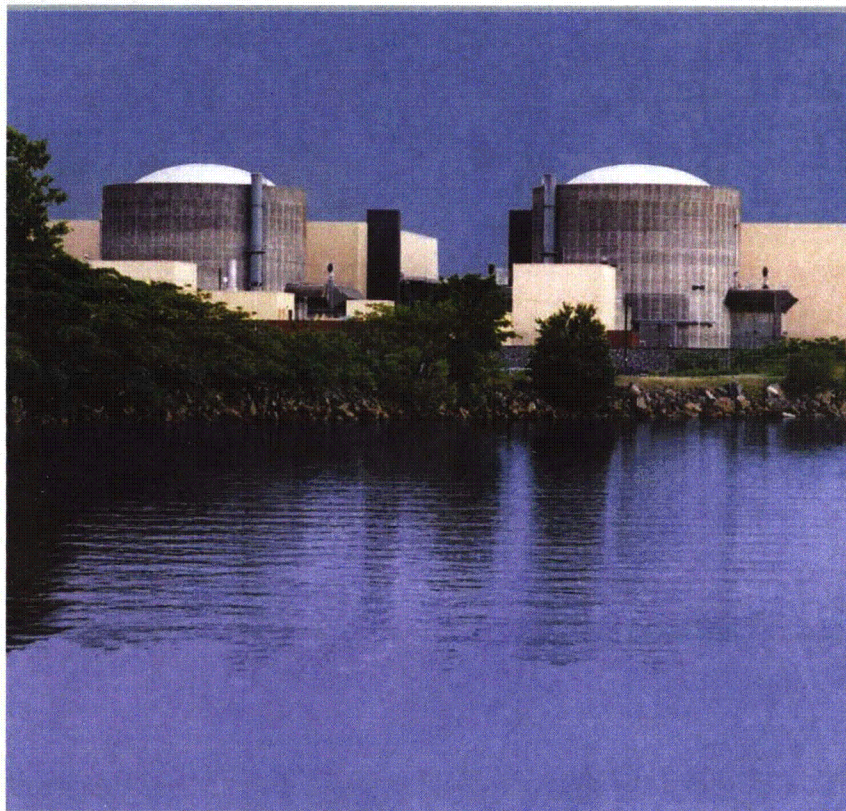
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# McGuire Nuclear Station

## Units 1 and 2



# AREOR

Annual  
Radiological Environmental  
Operating Report  
2012



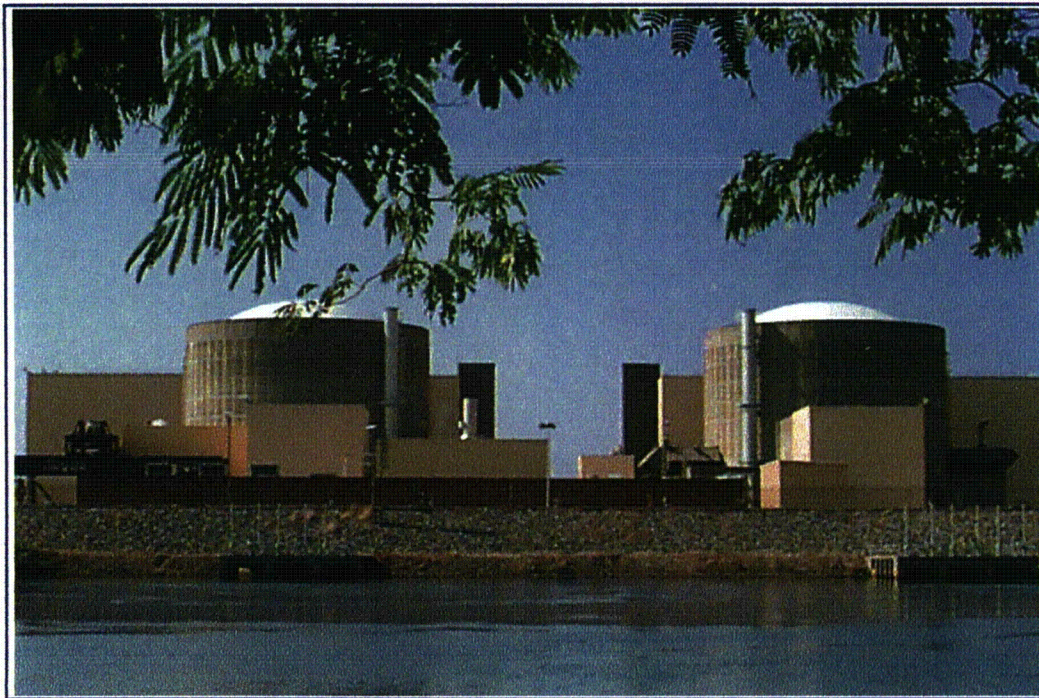
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# **ANNUAL RADIOLOGICAL ENVIRONMENTAL OPERATING REPORT**

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

**2012**



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

BW	BiWeekly
C	Control
DEHNR	Department of Environmental Health and Natural Resources
DHEC	Department of Health and Environmental Control
EPA	Environmental Protection Agency
ERA	Environmental Resource Associates
GI-LLI	Gastrointestinal – Lower Large Intestine
GPS	Global Positioning System
ISFSI	Independent Spent Fuel Storage Installation
LLD	Lower Limit of Detection
M	Monthly
MDA	Minimum Detectable Activity
MNS	McGuire Nuclear Station
mrem	millirem
NIST	National Institute of Standards and Technology
NRC	Nuclear Regulatory Commission
ODCM	Offsite Dose Calculation Manual
pCi/kg	picocurie per kilogram
pCi/l	picocurie per liter
pCi/m3	picocurie per cubic meter
PIP	Problem Investigation Program
Q	Quarterly
REMP	Radiological Environmental Monitoring Program
SA	Semiannually
SLCs	Selected Licensee Commitments
SM	Semimonthly
TECH SPECS	Technical Specifications
TLD	Thermoluminescent Dosimeter
μCi/ml	microcurie per milliliter
UFSAR	Updated Final Safety Analysis Report
W	Weekly

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# 1.0 EXECUTIVE SUMMARY

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This Annual Radiological Environmental Operating Report describes the McGuire Nuclear Station Radiological Environmental Monitoring Program (REMP), and the program results for the calendar year 2012.

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 thirty samples were analyzed comprising 1,585 test results in order to compile data for the 2012 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 2012 for station related radionuclides were generally within the ranges of concentrations observed in the past. Inspection of data showed that radioactivity concentrations in surface water, drinking water, shoreline sediment and fish are higher than the activities reported for samples collected prior to the operation of the station. Measured concentrations were not higher than expected, and all positively identified measurements attributable to station operation were within limits as specified in SLC's.

Additionally, environmental radiological monitoring data is consistent with effluents introduced into the environment by plant operations. The total body dose estimated to the maximum exposed member of the public as calculated by environmental sampling data, excluding TLD results, was 8.35E-2 mrem for 2012. 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) (reference 6.14). It is therefore concluded that station operations has had no significant radiological impact on the health and safety of the public or the environment.



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## 2.0 INTRODUCTION

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### 2.1 SITE DESCRIPTION AND SAMPLE LOCATIONS

McGuire Nuclear Station (MNS) is located geographically near the center of a highly industrialized region of the Carolinas. The land is predominantly rural non-farm with a small amount of land being used for farming. The McGuire site is in northwestern Mecklenburg County, North Carolina, 17 miles north-northwest of Charlotte, North Carolina. The site is bounded to the west by the Catawba River channel and to the north by 32,510 acre Lake Norman. Lake Norman is impounded by Duke Energy Corporation's Cowans Ford Dam Hydroelectric Station. The tailwater of Cowans Ford Dam is the upper limit of Mountain Island Reservoir. Mountain Island Dam is located 15 miles downstream from the site. Lookout Shoals Hydroelectric Station is at the upper reaches of Lake Norman. Marshall Steam Station is located on the western shore of Lake Norman, approximately 16 miles upstream from the site (reference 6.3).

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

Figures 2.1-1 and 2.1-2 are maps depicting the Thermoluminescent Dosimeter (TLD) monitoring locations and the sampling locations. The location numbers shown on these maps correspond to those listed in Tables 2.1-A and 2.1-B. Figure 2.1-1 comprises all sample locations within 0.5 mile radius of MNS. Figure 2.1-2 comprises all sample locations within a ten mile radius of MNS.

### 2.2 SCOPE AND REQUIREMENTS OF THE REMP

An environmental monitoring program has been in effect at McGuire Nuclear Station since 1977, four years prior to operation of Unit 1 in 1981. The preoperational program provides data on the existing environmental radioactivity levels for the site and vicinity which may be used to determine whether increases in environmental levels are attributable to the station. The operational program provides surveillance and backup support of detailed effluent monitoring which is necessary to evaluate the significance, if any, of the contributions to the existing environmental radioactivity levels that result from station operation.

This monitoring program is based on NRC guidance as reflected in the Selected Licensee Commitments Manual, with regard to sample media, sampling locations, sampling frequency, and analytical sensitivity requirements. Indicator and control locations were established for comparison purposes to distinguish radioactivity of station origin from natural or other "man-made" environmental radioactivity. The environmental monitoring program also verifies projected and anticipated radionuclide concentrations in the environment and related exposures from releases of radionuclides from McGuire Nuclear Station. This program satisfies the

requirements of Section IV.B.2 of Appendix I to 10CFR50 and provides surveillance of all appropriate critical exposure pathways to man and protects vital interests of the company, public, and state and federal agencies concerned with the environment. Reporting levels for radioactivity found in environmental samples are listed in Table 2.2-A. Table 2.2-B lists the REMP analysis and frequency schedule.

The Annual Land Use Census, required by Selected Licensee Commitments, is performed to ensure that changes in the use of areas at or beyond the site boundary are identified and that modifications to the Radiological Environmental Monitoring Program are made if required by changes in land use. This census satisfies the requirements of Section IV.B.3 of Appendix I to 10CFR50. Results are shown in Table 3.10.

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

## **2.3 STATISTICAL AND CALCULATIONAL METHODOLOGY**

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

There was one (1) basic statistical calculation performed on the raw data resulting from the environmental sample analysis program. The calculation involved the determination of the mean value for the indicator and the control samples for each sample medium. The mean is a widely used statistic. This value was used in the reduction of the data generated by the sampling and analysis of the various media in the Radiological Environmental Monitoring Program. "Net activity (or concentration)" is the activity (or concentration) determined to be present in the sample. No "Minimum Detectable Activity", "Lower Limit of Detection", "Less Than Level", or negative activities or concentrations are included in the calculation of the mean. The following equation was used to estimate the mean (reference 6.8):

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

Where:

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

i = individual sample,

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

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

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

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

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

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

### **2.3.3 TREND IDENTIFICATION**

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

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

Figure 2.1-1

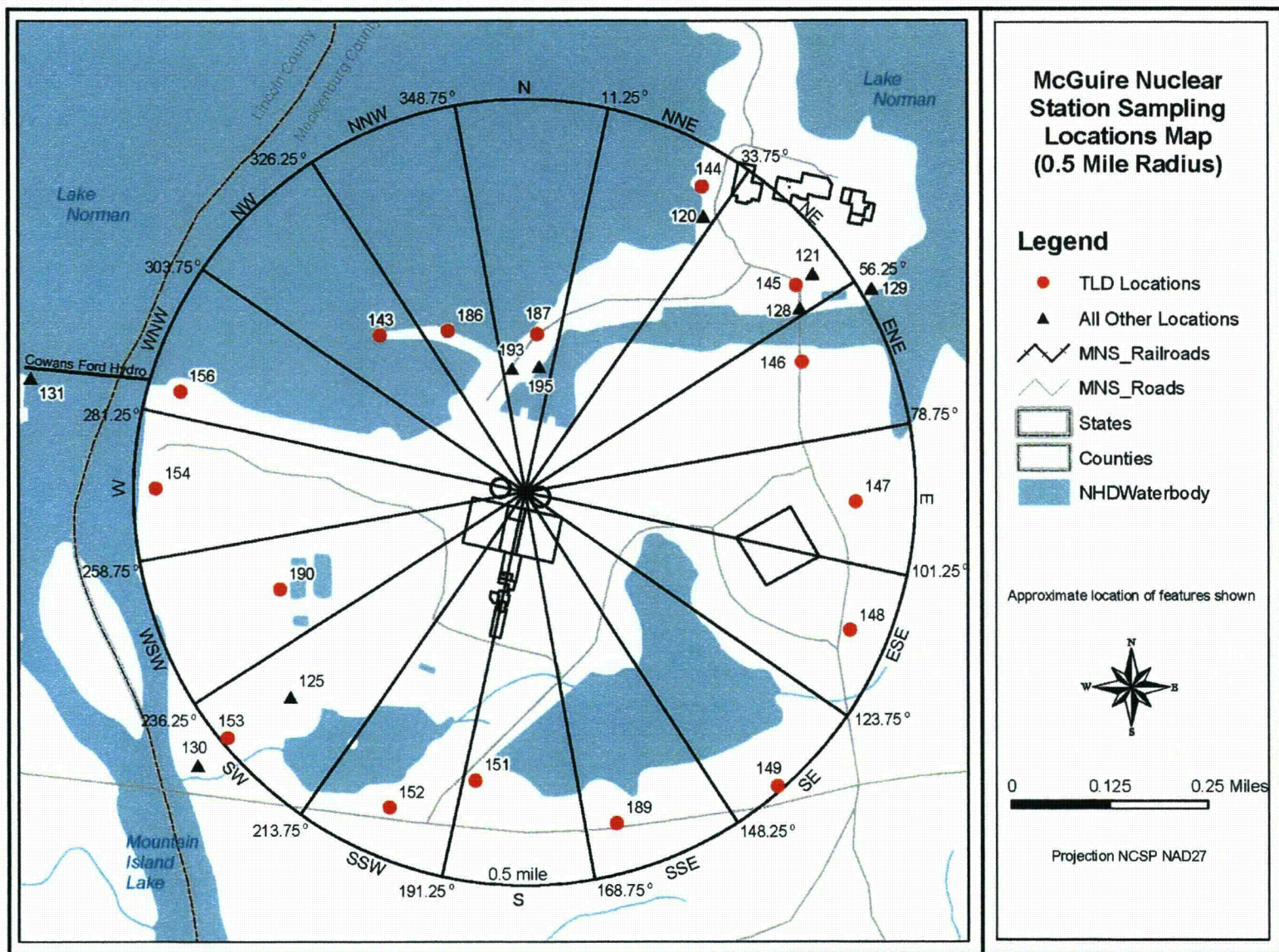
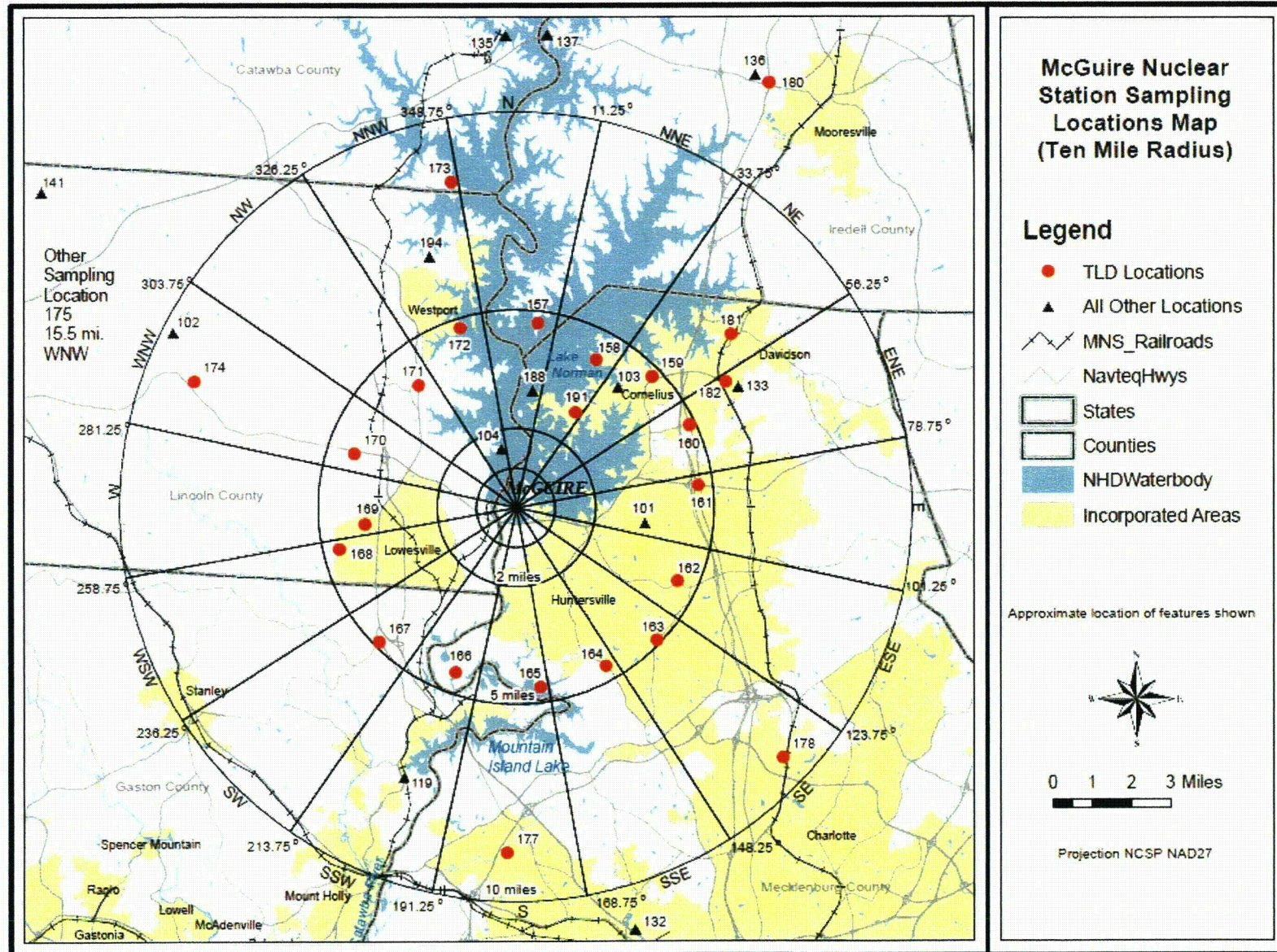


Figure 2.1-2



**TABLE 2.1-A**

**MCGUIRE RADIOLOGICAL MONITORING PROGRAM  
SAMPLING LOCATIONS**

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

Site #	Measure Type	Location Description*	Air Rad. & Part.	Surface Water	Drinking Water	Shoreline Sediment	Food Products	Fish	Milk	Broad Leaf Veg.
101	I	North Mecklenburg Water Treatment Facility ( 3.31 mi E )			M					
102	C	Amity Church Road ( 9.89 mi WNW )	W							M ( b )
103	I	Cottonwood Substation ( 4.20 mi NE )	W							
104	I	5 mile radius Gardens (1.52 mi NNW)					M ( a )			
119	I	Mt. Holly Municipal Water Supply ( 7.40 mi SSW )			M					
120	I	Site Boundary ( 0.46 mi NNE )	W							M ( b )
121	I	Site Boundary ( 0.47 mi NE )	W							
125	I	Site Boundary ( 0.38 mi SW )	W							M ( b )
128	I	Discharge Canal Bridge ( 0.45 mi NE )		M						
129	I	Discharge Canal Entrance to Lake Norman ( 0.51 mi ENE )				SA		SA		
130	I	Hwy 73 Bridge Downstream ( 0.52 mi SW )				SA				
131	I	Cowans Ford Dam ( 0.64 mi WNW )		M						
132	I	Charlotte Municipal Water Supply ( 11.1 mi SSE )			M					
133	I	Cornelius ( 6.23 mi ENE )	W							
135	C	Plant Marshall Intake Canal ( 11.9 mi N )		M						
136	C	Mooreville Municipal Water Supply ( 12.7 mi NNE )			M					
137	C	Pinnacle Access Area ( 12.0 mi N )				SA		SA		
141	C	Lynch Dairy-Cows ( 14.8 mi WNW )							SM	
188	I	5 mile radius Gardens ( 2.79 mi NNE )					M ( a )			
193	I	Site Boundary ( 0.19 mi N )								M ( b )
194	I	East Lincoln County Water Supply ( 6.73 mi NNW )			M					
195	I	Fishing Access Road ( 0.19 mi N )	W							

(a) During Harvest Season

(b) When Available

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

**TABLE 2.1-B**

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

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

Site #	Measure Type	Location	Distance* (miles)	Sector	Site #	Measure Type	Location	Distance* (miles)	Sector
143	IR	SITE BOUNDARY	0.27	NW	164	OR	HAMBRIGHT & BEATTIES FORD ROAD	4.64	SSE
144	IR	SITE BOUNDARY	0.46	NNE	165	OR	ARTHER AUTEN ROAD	4.57	S
145	IR	SITE BOUNDARY	0.47	NE	166	OR	NECK ROAD REFUGE BOUNDARY	4.44	SSW
146	IR	SITE BOUNDARY	0.42	ENE	167	OR	LUCIA RIVERBEND HWY/OLD FIREHOUSE	4.87	SW
147	IR	SITE BOUNDARY	0.44	E	168	OR	OLD PLANK ROAD BRIDGE	4.60	WSW
148	IR	SITE BOUNDARY	0.46	ESE	169	OR	GLOVER LANE	4.03	W
149	IR	SITE BOUNDARY	0.50	SE	170	OR	LITTLE EGYPT ROAD	4.32	WNW
151	IR	SITE BOUNDARY	0.37	S	171	OR	TRIANGLE ACE HARDWARE	3.95	NW
152	IR	SITE BOUNDARY	0.44	SSW	172	OR	LAKESHORE S RD ISLAND VIEW COURT	4.69	NNW
153	IR	SITE BOUNDARY	0.47	SW	173	SI	KEISTLER STORE / GLENWOOD ROAD	8.39	NNW
154	IR	SITE BOUNDARY	0.45	W	174	SI	EAST LINCOLN JR. HIGH SCHOOL	8.77	WNW
156	IR	SITE BOUNDARY	0.44	WNW	175	C	BOGER CITY	15.5	WNW
189	IR	SITE BOUNDARY	0.43	SSE	177	SI	BELMALLOW 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 & W CATAWBA AVENUE	4.73	NE	182	SI	CORNELIUS AIR SITE # 133	6.23	ENE
160	OR	ANCHORAGE MARINE SHOWROOM	4.89	ENE	186	SI	MCGUIRE FISHING ACCESS ROAD	0.24	NNW
161	OR	SAM FURR ROAD & HWY 21	4.70	E	187	SI	ENERGY EXPLORIUM / AIR SITE # 195	0.19	N
162	OR	RANSON ROAD	4.53	ESE	191	SI	PENINSULA DEV. / JOHN CONNOR ROAD	2.84	NNE
163	OR	MCCOY ROAD	4.94	SE					

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

**TABLE 2.2-A**

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

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

(a) If no drinking water pathway exists, a value of 30,000 pCi/liter may be used.

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

**TABLE 2.2-B**

**REMP ANALYSIS FREQUENCY**

Sample Medium	Analysis Schedule	Gamma Isotopic	Tritium	Low Level I-131	Gross Beta	TLD
Air Radioiodine	Weekly	X				
Air	Weekly	X			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	Semiannually	X		X		
Fish	Semiannually	X				
Broadleaf Vegetation	Monthly <sup>(b)</sup>	X				
Food Products	Monthly <sup>(b)</sup>	X				

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

(b) When Available



**TABLE 2.2-C**

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

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

(a) If no drinking water pathway exists, a value of 3000 pCi/liter may be used.

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

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## 3.0 INTERPRETATION OF RESULTS

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Review of 2012 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.

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 2012 was 4.22% for drinking water tritium at the North Mecklenburg Water Treatment Facility (Location 101). Only Selected Licensee Commitments radionuclides were detected in 2012.

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 2012. Similarly, there was no significant increase in ambient background radiation levels in the surrounding areas. The 2012 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 2012, 364 particulate and radioiodine samples were analyzed, 312 at six indicator locations and 52 at the control location. Particulate samples were analyzed weekly for gamma and gross beta. Radioiodine samples received a weekly gamma analysis.

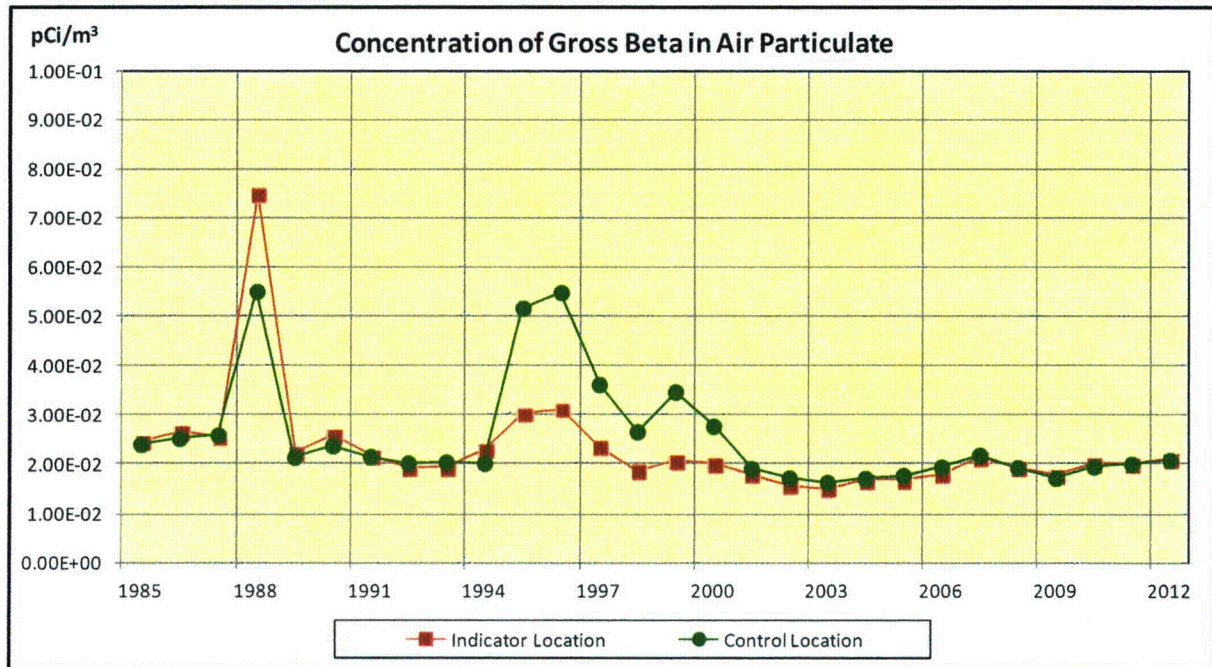
Gross beta analyses indicated  $2.10\text{E-}2$  pCi/m<sup>3</sup> at the location with the highest annual mean and  $2.08\text{E-}2$  pCi/m<sup>3</sup> at the control location. Detectable gamma emitting particulate activity (Co-58) was last observed in environmental air particulate samples in 2004 (reference 6.15).

No detectable I-131 activity in any environmental air radioiodine samples was found in 2012. K-40 and Be-7 that occur naturally were routinely detected in charcoal cartridges collected during the year.

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 2012, no reporting levels were approached.

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 <sup>3</sup> )	Cs-137 Control (pCi/m <sup>3</sup> )	Beta Indicator (pCi/m <sup>3</sup> )	Beta Control (pCi/m <sup>3</sup> )
1979*	4.40E-3	1.47E-3	**	**
1980*	6.70E-3	4.53E-3	**	**
1981*	6.16E-3	5.32E-3	**	**
1982*	3.82E-3	2.29E-3	**	**
1983*	2.93E-3	3.21E-3	**	**
1984	1.74E-3	8.29E-4	**	**
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	1.07E-2	7.91E-3	2.54E-2	2.59E-2
1988	0.00E0	0.00E0	7.49E-2	5.51E-2
1989	0.00E0	0.00E0	2.22E-2	2.14E-2
1990	0.00E0	0.00E0	2.58E-2	2.37E-2
1991	0.00E0	0.00E0	2.16E-2	2.15E-2
1992	0.00E0	0.00E0	1.92E-2	2.02E-2
1993	0.00E0	0.00E0	1.93E-2	2.04E-2
1994	0.00E0	0.00E0	2.28E-2	2.02E-2
1995	0.00E0	0.00E0	3.02E-2	5.17E-2
1996	0.00E0	0.00E0	3.11E-2	5.49E-2
1997	0.00E0	0.00E0	2.34E-2	3.62E-2
1998	0.00E0	0.00E0	1.86E-2	2.66E-2
1999	0.00E0	0.00E0	2.06E-2	3.47E-2
2000	0.00E0	0.00E0	2.00E-2	2.77E-2
2001	0.00E0	0.00E0	1.79E-2	1.91E-2
2002	0.00E0	0.00E0	1.57E-2	1.72E-2
2003	0.00E0	0.00E0	1.50E-2	1.63E-2
2004	0.00E0	0.00E0	1.67E-2	1.71E-2
2005	0.00E0	0.00E0	1.68E-2	1.77E-2
2006	0.00E0	0.00E0	1.79E-2	1.94E-2
2007	0.00E0	0.00E0	2.12E-2	2.18E-2
2008	0.00E0	0.00E0	1.92E-2	1.93E-2
2009	0.00E0	0.00E0	1.79E-2	1.76E-2
2010	0.00E0	0.00E0	2.01E-2	1.95E-2
2011	7.06E-3	0.00E0	1.99E-2	2.00E-2
Average (2002 – 2011)	NOT APPLICABLE	NOT APPLICABLE	1.80E-2	1.86E-2
2012	0.00E0	0.00E0	2.10E-2	2.08E-2

0.00E0 = no detectable measurements \* Radioiodine and Particulates analyzed together \*\* Gross Beta analysis not performed  
 2011 concentration affected by Fukushima Daiichi

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

Year	Indicator Location (pCi/m <sup>3</sup> )	Control Location (pCi/m <sup>3</sup> )
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	1.07E-2	6.60E-3
1988	0.00E0	0.00E0
1989	2.18E-2	0.00E0
1990	0.00E0	0.00E0
1991	0.00E0	0.00E0
1992	0.00E0	0.00E0
1993	0.00E0	0.00E0
1994	0.00E0	0.00E0
1995	0.00E0	0.00E0
1996	0.00E0	0.00E0
1997	0.00E0	0.00E0
1998	0.00E0	0.00E0
1999	0.00E0	0.00E0
2000	0.00E0	0.00E0
2001	0.00E0	0.00E0
2002	0.00E0	0.00E0
2003	0.00E0	0.00E0
2004	0.00E0	0.00E0
2005	0.00E0	0.00E0
2006	0.00E0	0.00E0
2007	0.00E0	0.00E0
2008	0.00E0	0.00E0
2009	0.00E0	0.00E0
2010	0.00E0	0.00E0
2011	6.00E-2	5.46E-2
2012	0.00E0	0.00E0

0.00E0 = no detectable measurements \* Radioiodine and Particulate analyzed together.  
 2011 concentration affected by Fukushima Daiichi

## 3.2 DRINKING WATER

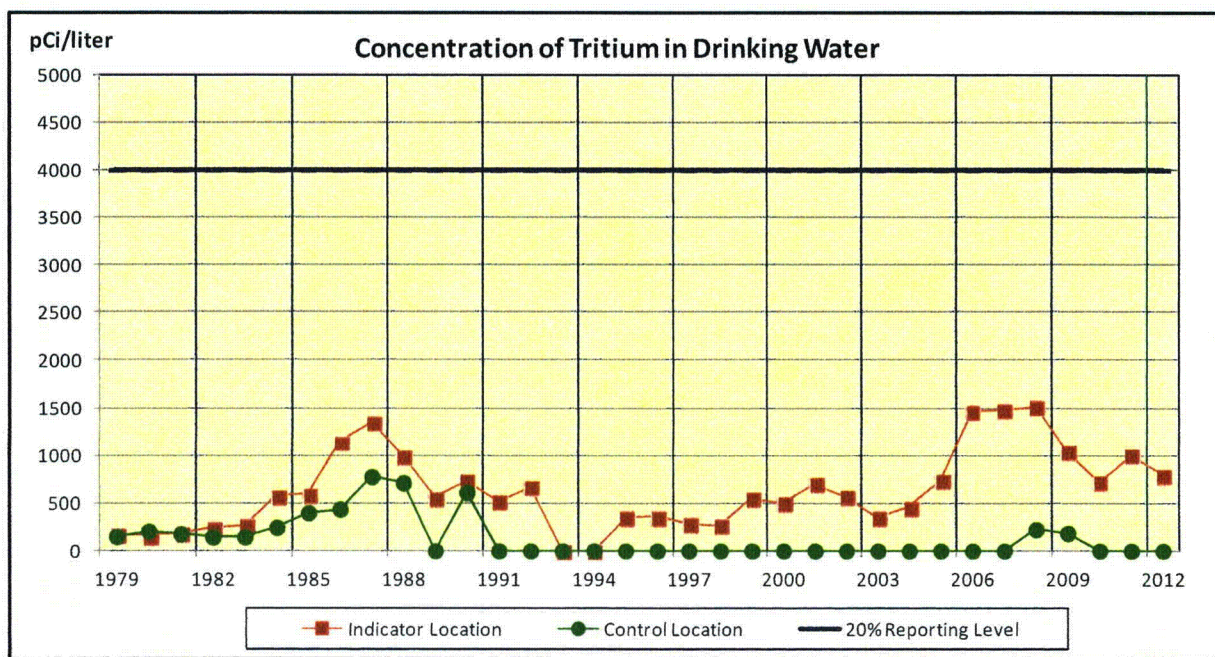
In 2012, 65 drinking water samples were analyzed for gross beta and gamma emitting radionuclides. Fifty-two samples were from the four indicator locations and 13 from the control location. Tritium (H-3) analyses were performed on 20 composite samples, 16 at indicator locations and four at the control location.

No detectable gamma activity was found in drinking water samples in 2012 and has not been detected since 1987. Gross beta analyses indicated 1.74 pCi/l at the location with the highest annual mean and 1.66 pCi/l at the control location. Tritium was detected in fourteen of the 16 indicator composite samples taken in 2012 with the highest annual mean resulting in only 3.98% of the 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 2012; therefore low-level iodine analysis is not required.

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

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

Figure 3.2



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

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

0.00E0 = no detectable measurements

### 3.3 SURFACE WATER

In 2012, 39 surface water samples were analyzed for gamma emitting radionuclides, 26 at the two indicator locations and 13 at the control location. Analyses for H-3 were performed on 12 samples, eight at indicator locations and four at the control location.

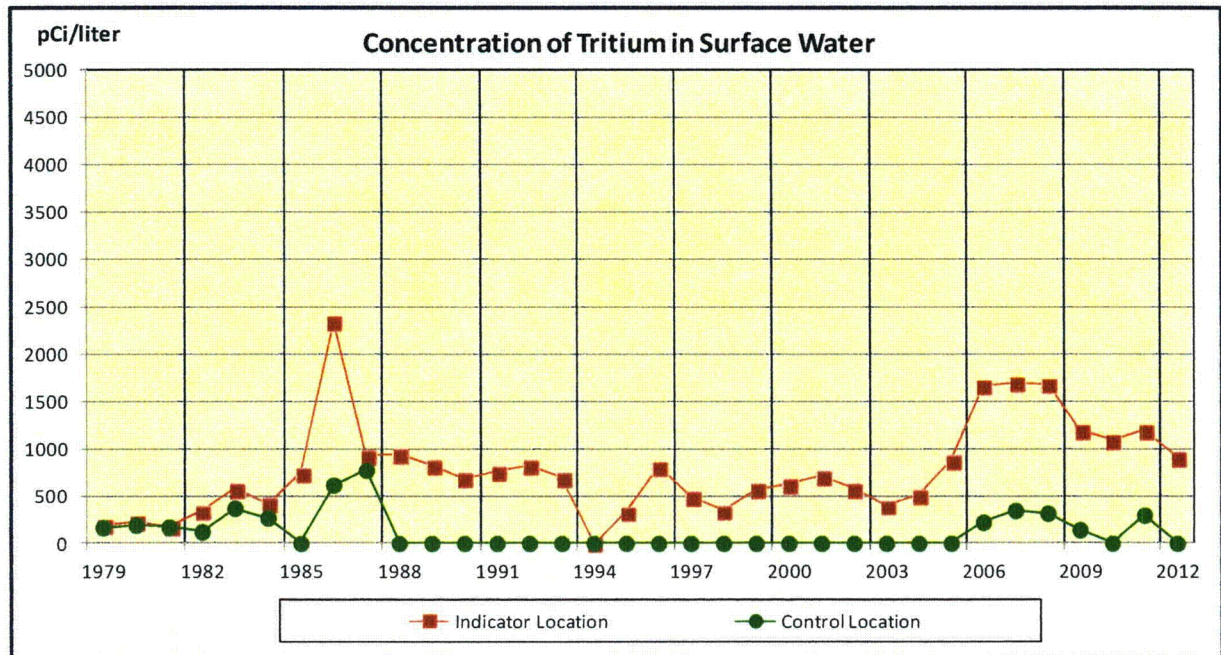
No detectable gamma activity was found in surface water samples in 2012 and has not been detected since 1988. Tritium was detected in all of the eight indicator composite samples taken in 2012. Tritium was not detected in control location composite samples in 2012.

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. This 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**

<b>YEAR</b>	<b>H-3 Indicator (pCi/l)</b>	<b>H-3 Control (pCi/l)</b>
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

0.00E0 = no detectable measurements

### 3.4 MILK

In 2012, 26 milk samples were analyzed for low level I-131 and other gamma emitting radionuclides. One control location was sampled. No indicator dairies were identified by the 2012 land use census.

No detectable activity was found in milk samples in 2012. Cs-137 has not been detected in milk samples since 1990 and all other radionuclides have not been detected since 1987. K-40 is a naturally occurring radionuclide observed in milk samples in 2012.

Table 3.4 gives indicator location highest annual means and control means since 1979 for Cs-137. Since no Cs-137 was detected in 2012, no reporting levels were approached.

**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	5.20E0	8.60E0
1988	3.40E0	2.90E0
1989	6.00E0	5.60E0
1990	5.30E0	2.60E0
1991	0.00E0	0.00E0
1992	0.00E0	0.00E0
1993	0.00E0	0.00E0
1994	0.00E0	0.00E0
1995	0.00E0	0.00E0
1996	0.00E0	0.00E0
1997	0.00E0	0.00E0
1998	0.00E0	0.00E0
1999	0.00E0	0.00E0
2000	0.00E0	0.00E0
2001	0.00E0	0.00E0
2002	0.00E0	0.00E0
2003	0.00E0	0.00E0
2004	0.00E0	0.00E0
2005	0.00E0	0.00E0
2006	0.00E0	0.00E0
2007	0.00E0	0.00E0
2008	0.00E0	0.00E0
2009	0.00E0	0.00E0
2010	0.00E0	0.00E0
2011	0.00E0	0.00E0
2012	0.00E0	0.00E0

0.00E0 = no detectable measurements

### 3.5 BROADLEAF VEGETATION

In 2012, 48 broadleaf vegetation samples were analyzed, 36 at the three indicator locations and twelve at the control location. There were no gamma emitting radionuclides identified in any indicator location or control location broadleaf vegetation samples during 2012.

No airborne Cs-137 has been released from the plant since 1998. Cs-137 attributable to past nuclear weapons testing is known to exist in many environmental media at low and highly variable levels.

Table 3.5 gives indicator and control location highest annual means since 1979 for Cs-137.

**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	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	2.29E1	0.00E0
2012	0.00E0	0.00E0

0.00E0 = no detectable measurements

2011 concentration affected by Fukushima Daiichi

### 3.6 FOOD PRODUCTS

In 2012, 11 food products (crops) samples were analyzed. The irrigated garden location was relocated during 2012 (reference 6.16) since the garden owner discontinued the garden. Seven samples were analyzed from the irrigated garden prior to relocation, four samples after relocation. 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 2012, no reporting levels were approached.

**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	2.90E1
1988	0.00E0
1989	0.00E0
1990	0.00E0
1991	0.00E0
1992	0.00E0
1993	0.00E0
1994	0.00E0
1995	0.00E0
1996	0.00E0
1997	0.00E0
1998	0.00E0
1999	0.00E0
2000	0.00E0
2001	0.00E0
2002	0.00E0
2003	0.00E0
2004	0.00E0
2005	0.00E0
2006	0.00E0
2007	0.00E0
2008	0.00E0
2009	0.00E0
2010	0.00E0
2011	3.06E1
2012	0.00E0

0.00E0 = no detectable measurements

2011 concentration affected by Fukushima Daiichi

### 3.7 FISH

In 2012, 12 fish samples were analyzed for gamma emitting radionuclides, six at the indicator location and six at the control location.

Figure 3.7-1 shows Cs-137 highest annual mean indicator and control location concentrations with comparisons to 5% of the reporting level. Figure 3.7-2 shows Co-60 highest annual mean indicator and control location concentrations also 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.

Co-60 activity was not detected in 2012 in any of the indicator or control samples. Cs-137 activity was detected in one of the six indicator samples taken at location 129 with a mean concentration of 33.4 pCi/kg, which is 1.67% of the reporting level. Cs-137 was detected in one of the six control samples with a mean concentration of 44.5 pCi/kg, which is 2.23% of the reporting level.

All other radionuclides not shown in the table have demonstrated no detectable activity since 1986.

Figure 3.7-1

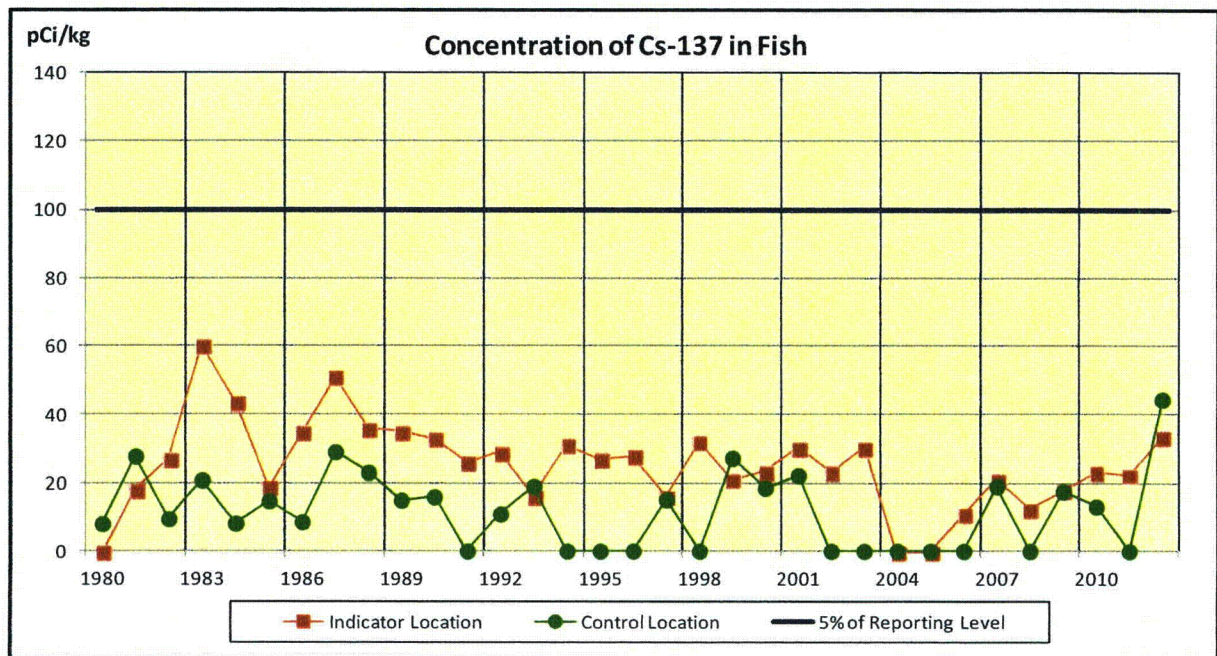
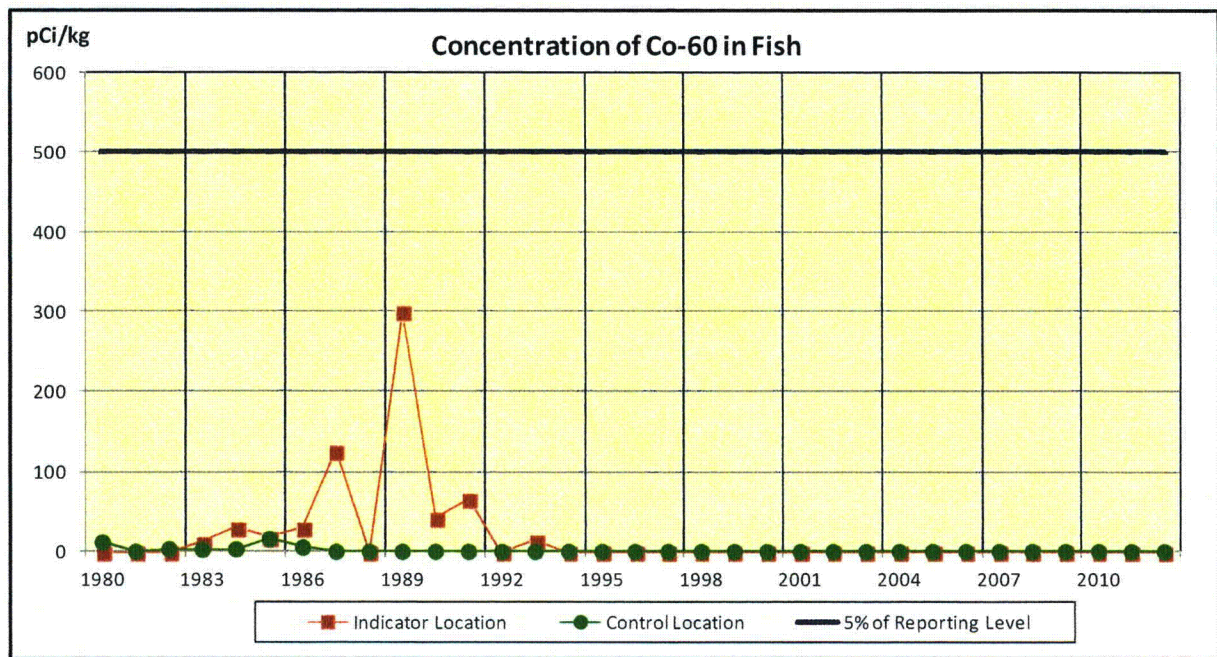


Figure 3.7-2



**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	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

0.00E0 = no detectable measurements

All negative values have been replaced with zeros for calculational purposes

### 3.8 SHORELINE SEDIMENT

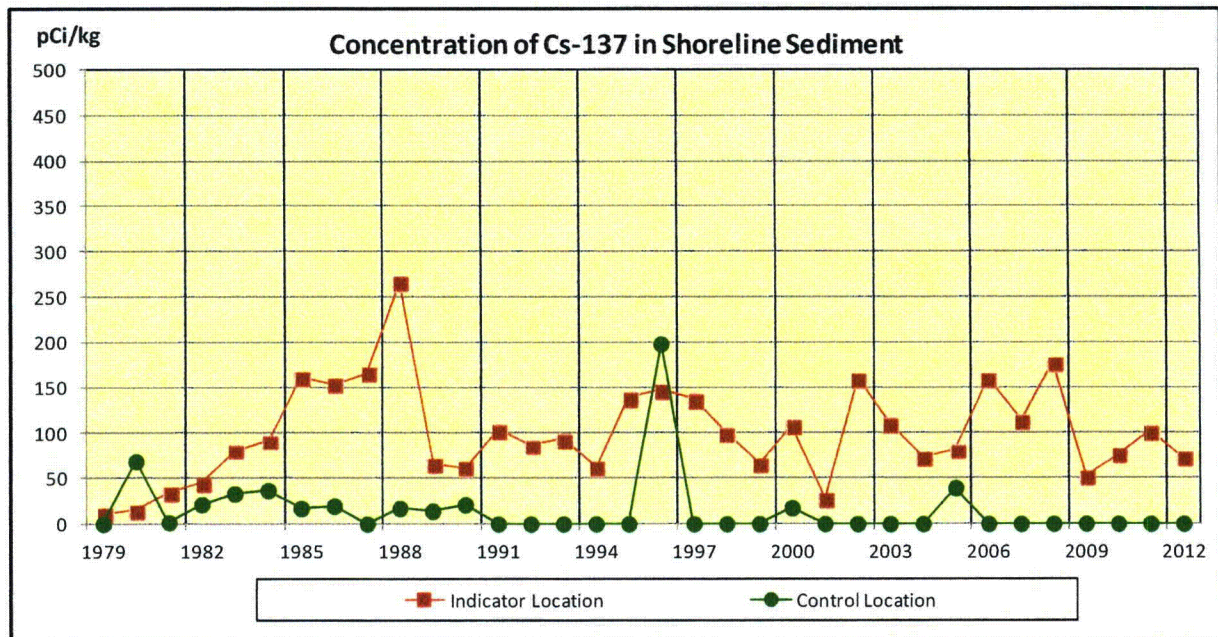
In 2012, six shoreline sediment samples were analyzed, four from two indicator locations and two at the control location.

Figure 3.8-1 shows Cs-137 highest annual mean indicator and control location concentrations since 1979. Figure 3.8-2 shows Co-60 highest annual mean indicator and control location concentrations since 1979.

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 71.3 pCi/kg. Cs-137 was not detected in any control location samples.

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.

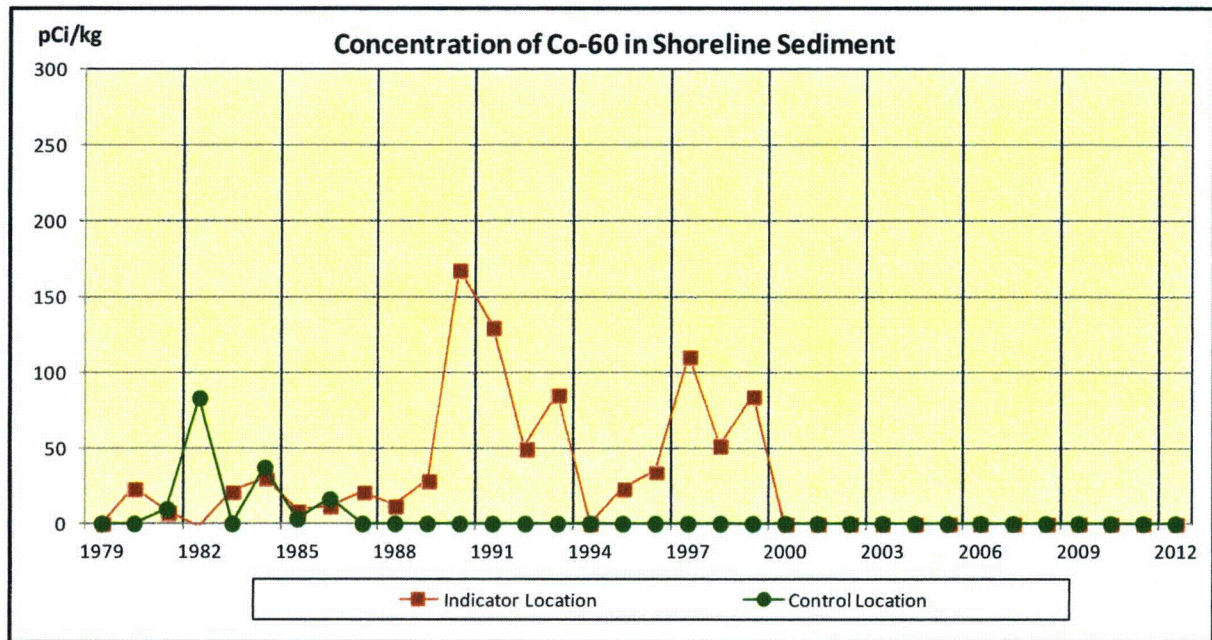
Figure 3.8-1



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



Figure 3.8-2



*There is no reporting level for Co-60 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	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

**Table 3.8 continued**

<b>YEAR</b>	<b>Mn-54 Indicator</b>	<b>Co-58 Indicator</b>	<b>Co-60 Indicator</b>	<b>Cs-134 Indicator</b>	<b>Cs-137 Indicator</b>
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

## **3.9 DIRECT GAMMA RADIATION**

### **3.9.1 ENVIRONMENTAL TLD**

In 2012, 163 TLDs were analyzed, 159 at indicator locations, four at the control location. TLDs are collected and analyzed quarterly. A transit background for environmental TLDs is determined based on ANSI N545. The highest annual mean exposure for an indicator location was 106 milliroentgen. The annual mean exposure for the control location was 92 milliroentgen.

Figure 3.9-1 and Table 3.9-A show TLD inner ring (site boundary), outer ring (4-5 miles), and control location annual averages in milliroentgen per year. Preoperational data and ten year rolling averages are also given. As shown in the graph, inner and outer ring averages historically compare closely, with control data somewhat higher. Inner and outer ring averages comprise a number of data points with the control average representing only one location.

The control location has historically been higher than indicator locations. This is most likely an artifact of the underlying geologic structures at the control location. TLDs located greater than 5 miles from the plant demonstrate a wide range of background radiation levels. The control location is 15.5 miles WNW, well beyond the influence of the plant.

The calculated total body dose from gaseous effluents for 2012 was 2.88E-1 millirem, which is 0.45% of the average inner ring TLD values. Therefore, it can be concluded that discharges from the plant had very little impact on the measured TLD values.

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

Figures 3.9-2 and 3.9-3 show the TLD mean for each inner and outer ring TLD location from 1987 through 2011.

### **3.9.2 ISFSI**

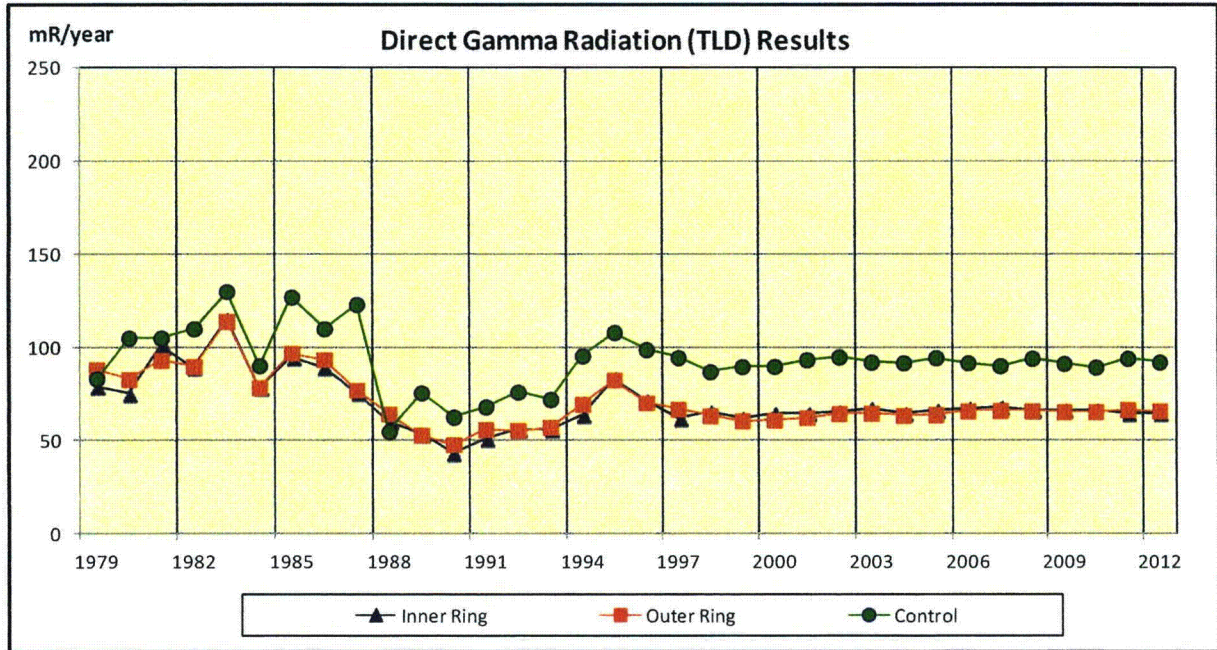
The McGuire ISFSI is located inside the protected area on the west side of the plant approximately 244 meters from plant centerline. The ISFSI protected area fence on the north side is approximately 60 meters from the owner control fence atop the berm adjacent to Lake Norman and just west of the intake structure. At a distance of 425 meters the ISFSI is closest to the Exclusion Area Boundary (EAB) on the west side along the Catawba River. The nearest resident to the ISFSI is just over a kilometer away in the east sector with the next closest resident at 1.1 kilometers in the WNW sector.

The ISFSI is situated in a slight depression in relationship to other structures inside the protected area. The ISFSI direct radiation to the north is shielded by the berm on the south boundary of Lake Norman. The EAB to the west of ISFSI is shielded from direct radiation by the drop in elevation from 754' at the ISFSI to the river bank below the

Cowan's Ford Dam. These features lessen the dose impact to the public accessing the EAB west of ISFSI and the Lake Norman shoreline inside the EAB north of ISFSI.

There are no effluent releases from the fuel canisters stored inside the shielded casks to the environment. Doses measured by environmental TLDs show little or no change since the current TLD system was implemented.

Figure 3.9-1



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

**Table 3.9-A Direct Gamma Radiation (TLD) Results**

YEAR	Inner Ring Average (mR/yr)	Outer Ring Average (mR/yr)	Control (mR/yr)
1979	7.91E1	8.82E1	8.32E1
1980	7.54E1*	8.29E1*	1.05E2
1981	1.01E2	9.31E1	1.05E2
1982	8.95E1	8.97E1	1.10E2
1983	1.16E2	1.14E2	1.30E2
1984	7.85E1	7.83E1	9.02E1
1985	9.54E1	9.69E1	1.27E2
1986	8.91E1	9.35E1	1.10E2
1987	7.58E1	7.71E1	1.23E2
1988	6.03E1	6.42E1	5.48E1
1989	5.37E1	5.30E1	7.55E1
1990	4.34E1	4.78E1	6.25E1
1991	5.14E1	5.59E1	6.80E1
1992	5.65E1	5.55E1	7.60E1
1993	5.61E1	5.71E1	7.20E1
1994	6.40E1	6.93E1	9.55E1
1995	8.36E1	8.25E1	1.08E2
1996	7.18E1	7.02E1	9.88E1
1997	6.22E1	6.68E1	9.45E1
1998	6.59E1	6.32E1	8.69E1
1999	6.23E1	6.05E1	8.96E1
2000	6.50E1	6.08E1	8.97E1
2001	6.51E1	6.22E1	9.33E1
2002	6.57E1	6.43E1	9.48E1
2003	6.74E1	6.45E1	9.20E1
2004	6.46E1	6.33E1	9.16E1
2005	6.62E1	6.34E1	9.44E1
2006	6.75E1	6.58E1	9.17E1
2007	6.84E1	6.60E1	9.00E1
2008	6.69E1	6.58E1	9.14E1
2009	6.67E1	6.53E1	9.12E1
2010	6.63E1	6.53E1	8.92E1
2011	6.51E1	6.64E1	9.40E1
Average (2002 – 2011)	6.65E1	6.50E1	9.20E1
2012	6.46E1	6.57E1	9.20E1

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

Figure 3.9-2

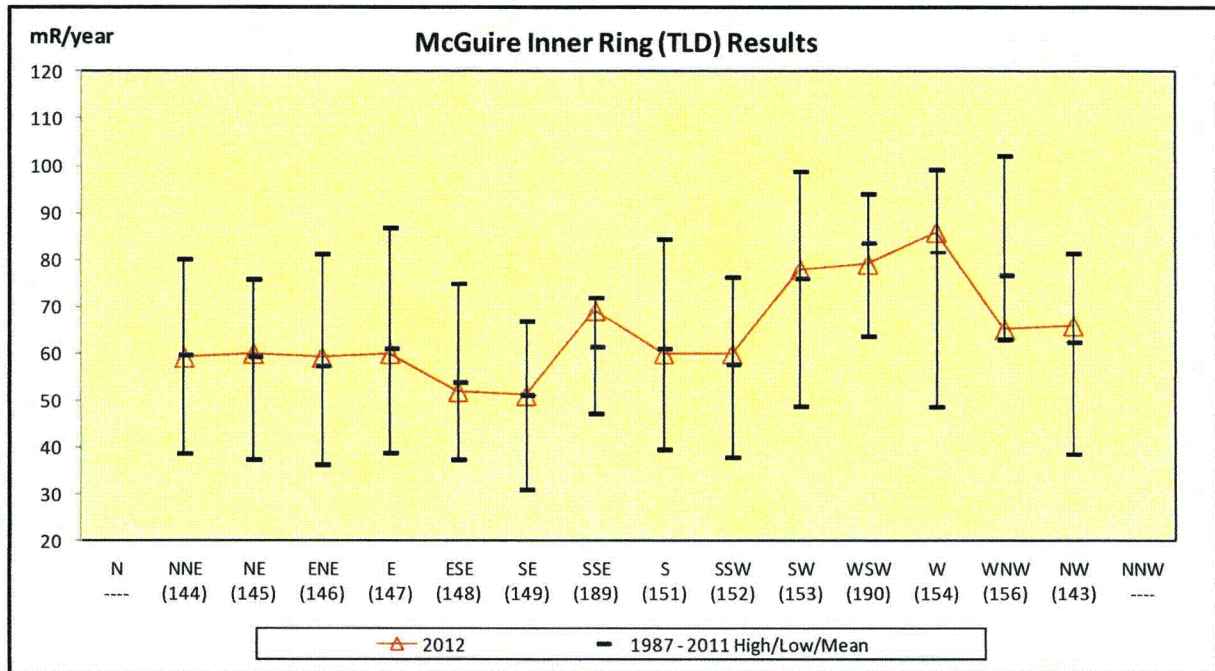
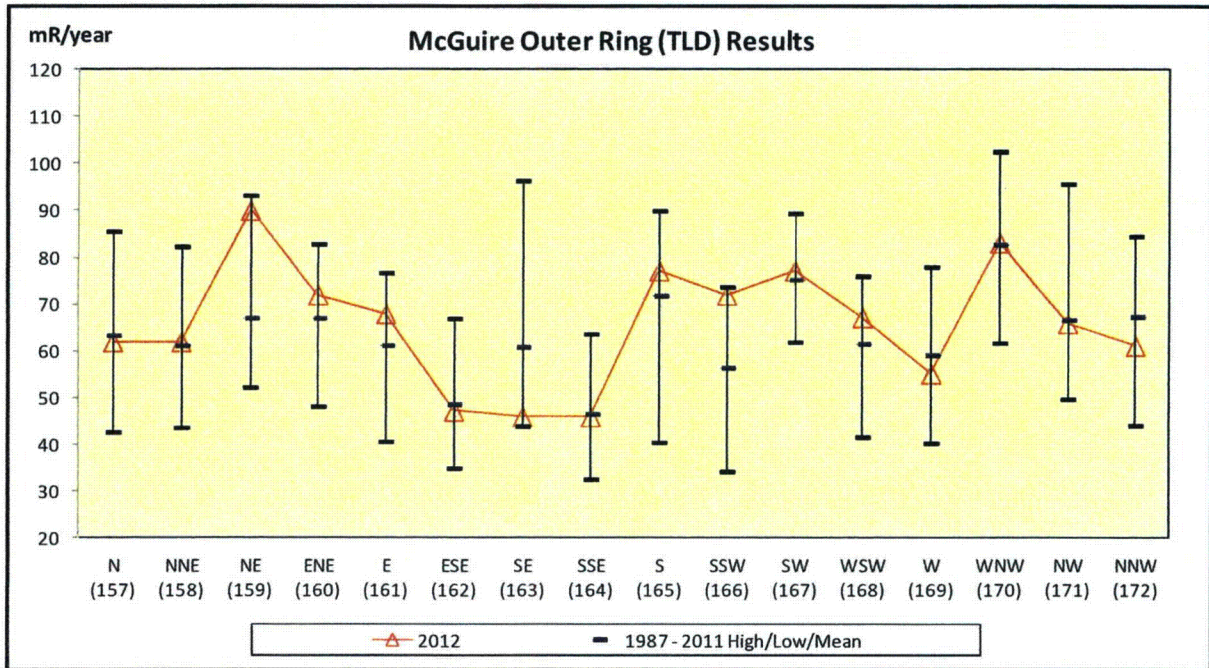


Table 3.9-B Direct Gamma Radiation (TLD) Results Inner Ring (mR/year)

Sector	Location	1987 – 2011 Mean	1987 – 2011 Low	1987 – 2011 High	2012
N*	---	---	---	---	---
NNE	144	6.00E+01	3.88E+01	8.02E+01	5.92E+01
NE	145	5.98E+01	3.75E+01	7.59E+01	6.00E+01
ENE	146	5.79E+01	3.64E+01	8.13E+01	5.92E+01
E	147	6.16E+01	3.89E+01	8.69E+01	6.00E+01
ESE	148	5.43E+01	3.75E+01	7.50E+01	5.20E+01
SE	149	5.14E+01	3.11E+01	6.70E+01	5.12E+01
SSE	189	6.17E+01	4.73E+01	7.20E+01	6.92E+01
S	151	6.16E+01	3.97E+01	8.45E+01	6.00E+01
SSW	152	5.80E+01	3.80E+01	7.64E+01	6.00E+01
SW	153	7.66E+01	4.89E+01	9.89E+01	7.80E+01
WSW	190	8.42E+01	6.38E+01	9.41E+01	7.92E+01
W	154	8.21E+01	4.88E+01	9.93E+01	8.60E+01
WNW	156	7.71E+01	6.31E+01	1.02E+02	6.52E+01
NW	143	6.29E+01	3.87E+01	8.15E+01	6.60E+01
NNW*	---	---	---	---	---

\*Site boundary location sector over water, but special interest TLD placed in sector inside the site boundary (March 1991).

Figure 3.9-3



**Table 3.9-C Direct Gamma Radiation (TLD) Results Outer Ring (mR/year)**

Sector	Location	1987 - 2011 Mean	1987 - 2011 Low	1987 - 2011 High	2012
N	157	6.38E+01	4.27E+01	8.56E+01	6.20E+01
NNE	158	6.15E+01	4.37E+01	8.24E+01	6.20E+01
NE	159	6.75E+01	5.23E+01	9.32E+01	9.00E+01
ENE	160	6.74E+01	4.82E+01	8.29E+01	7.20E+01
E	161	6.16E+01	4.07E+01	7.68E+01	6.80E+01
ESE	162	4.88E+01	3.50E+01	6.70E+01	4.72E+01
SE	163	6.12E+01	4.40E+01	9.64E+01	4.60E+01
SSE	164	4.68E+01	3.26E+01	6.37E+01	4.60E+01
S	165	7.20E+01	4.05E+01	9.00E+01	7.72E+01
SSW	166	5.68E+01	3.43E+01	7.38E+01	7.20E+01
SW	167	7.57E+01	6.20E+01	8.94E+01	7.72E+01
WSW	168	6.19E+01	4.17E+01	7.61E+01	6.72E+01
W	169	5.94E+01	4.04E+01	7.81E+01	5.52E+01
WNW	170	8.32E+01	6.18E+01	1.03E+02	8.32E+01
NW	171	6.72E+01	4.98E+01	9.57E+01	6.60E+01
NNW	172	6.77E+01	4.42E+01	8.46E+01	6.12E+01

### 3.10 LAND USE CENSUS

The land use census was conducted May 22, 2012 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 2012 census, no new residences (nearer to the plant), irrigated gardens (superior to existing gardens) or milk locations were identified. The nearest residence is located in the East sector at 0.48 miles. No environmental program changes were required as a result of the 2012 land use census.

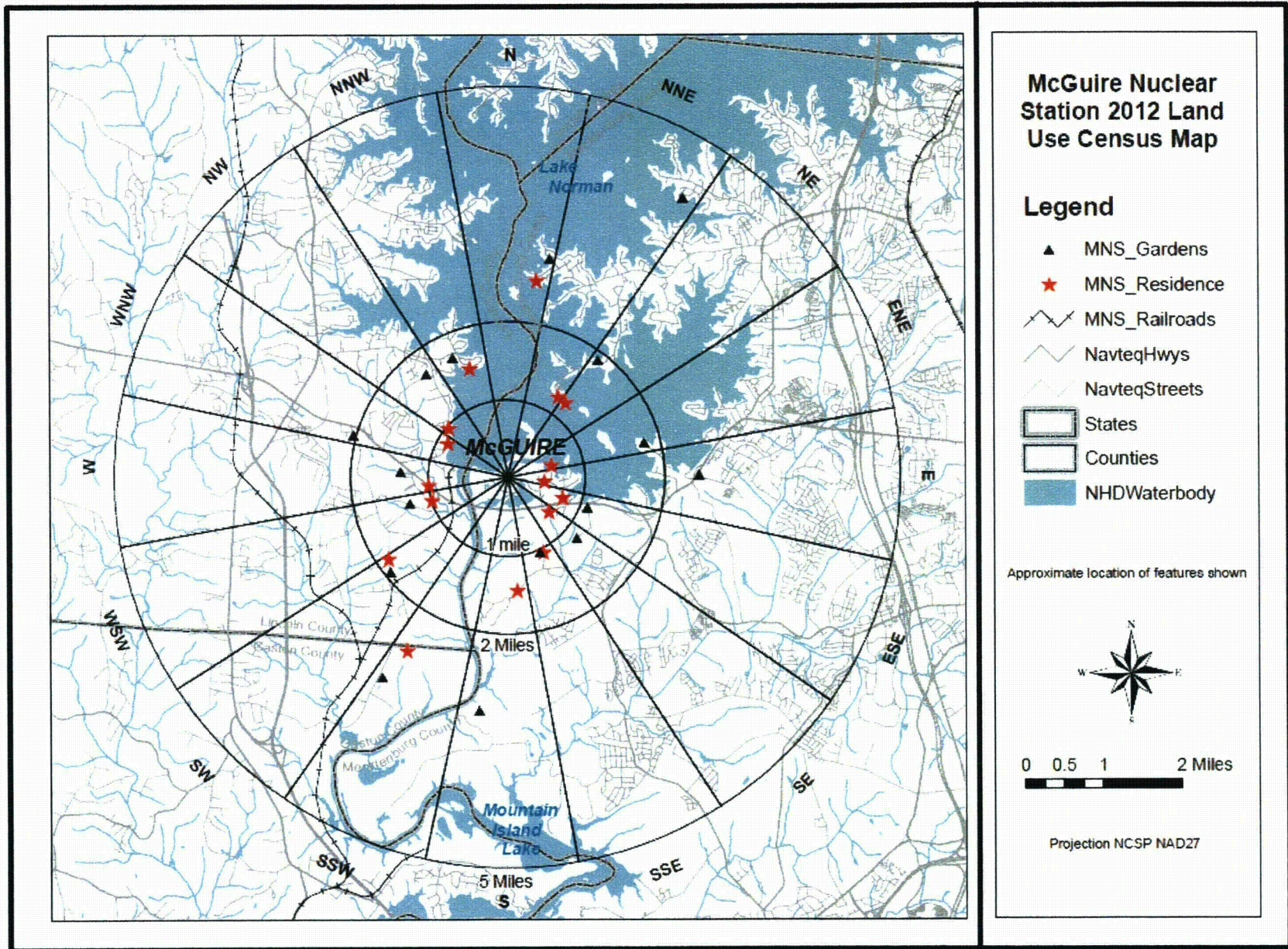
**Table 3.10 McGuire 2012 Land Use Census Results**

Sector		Distance (Miles)	Sector		Distance (Miles)
N	Nearest Residence	2.53	S	Nearest Residence	1.45
	Nearest Garden (irrigated)	2.79		Nearest Garden	3.14
	Nearest Milk Animal	-		Nearest Milk Animal	-
NNE	Nearest Residence	1.23	SSW	Nearest Residence	2.56
	Nearest Garden	4.27		Nearest Garden	2.94
	Nearest Milk Animal	-		Nearest Milk Animal	-
NE	Nearest Residence	1.21	SW	Nearest Residence	1.85
	Nearest Garden	1.80		Nearest Garden	1.98
	Nearest Milk Animal	-		Nearest Milk Animal	-
ENE	Nearest Residence	0.57	WSW	Nearest Residence	1.01
	Nearest Garden	1.98		Nearest Garden	1.33
	Nearest Milk Animal	-		Nearest Milk Animal	-
E	Nearest Residence	0.48	W	Nearest Residence	1.15
	Nearest Garden	2.16		Nearest Garden	1.23
	Nearest Milk Animal	-		Nearest Milk Animal	-
ESE	Nearest Residence	0.65	WNW	Nearest Residence	0.88
	Nearest Garden	1.20		Nearest Garden	2.06
	Nearest Milk Animal	-		Nearest Milk Animal	-
SE	Nearest Residence	0.67	NW	Nearest Residence	0.95
	Nearest Garden	1.18		Nearest Garden	1.68
	Nearest Milk Animal	-		Nearest Milk Animal	-
SSE	Nearest Residence	1.06	NNW	Nearest Residence	1.48
	Nearest Garden	1.06		Nearest Garden (irrigated)	1.69
	Nearest Milk Animal	-		Nearest Milk Animal	-

“-“ indicates no occurrences within the 5 mile radius



Figure 3.10



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## 4.0 EVALUATION OF DOSE

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### 4.1 DOSE FROM ENVIRONMENTAL MEASUREMENTS

Annual doses to maximum exposed individuals were estimated based on measured concentrations of radionuclides in 2012 MNS REMP samples. The primary purpose of estimating doses based on sample results is to allow comparison to effluent program dose estimates.

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

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

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

The maximum environmental organ dose estimate for any single sample type (excluding TLD results) collected during 2012 was 8.23E-2 mrem to the child total body, liver, thyroid, kidney, lung, and GI-LLI from the consumption of drinking water.

### 4.2 ESTIMATED DOSE FROM RELEASES

Throughout the year, dose estimates were calculated based on actual 2012 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 (reference 6.6).

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 is not 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 2012 environmental sample results was 8.35E-2 mrem to the child total body. The maximum total organ dose of 1.22E-1 mrem for liquid effluent-based estimates was to the child GI-LLI.

In calculations based on gaseous release pathways, vegetation was the predominant dose pathway for effluent samples. The maximum organ dose for gaseous effluent estimates was 8.75E-1 mrem to the child bone. No radioactivity was detected from gaseous pathways in environmental samples; therefore, there is no calculated dose.

The doses calculated do not exceed 40CFR190 or 10CFR50 dose commitment limits for members of the public. Doses to members of the public attributable to the operation of MNS are being maintained well within regulatory limits.

**TABLE 4.1-A**

**MCGUIRE NUCLEAR STATION  
2012 ENVIRONMENTAL AND EFFLUENT DOSE COMPARISON**

**LIQUID RELEASE PATHWAY**

<b>Organ</b>	<b>Environmental or Effluent Data</b>	<b>Critical Age <sup>(1)</sup></b>	<b>Critical Pathway <sup>(2)</sup></b>	<b>Location</b>	<b>Maximum Dose <sup>(3)</sup> (mrem)</b>
Skin	Environmental	Teen	Shoreline Sediment	130 (0.52 mi SW)	1.87E-04
Skin	Effluent	Teen	Shoreline Sediment	Discharge Pt.	4.35E-04
Bone	Environmental	Teen	-	-	0.00E+00
Bone	Effluent	Teen	Shoreline Sediment	Discharge Pt.	6.00E-04
Liver	Environmental	Child	Drinking Water	101 (3.31 mi E)	8.34E-02
Liver	Effluent	Child	Drinking Water	3.31 mi E	1.21E-01
T. Body	Environmental	Child	Drinking Water	101 (3.31 mi E)	8.35E-02
T. Body	Effluent	Child	Drinking Water	3.31 mi E	1.21E-01
Thyroid	Environmental	Child	Drinking Water	101 (3.31 mi E)	8.34E-02
Thyroid	Effluent	Child	Drinking Water	3.31 mi E	1.21E-01
Kidney	Environmental	Child	Drinking Water	101 (3.31 mi E)	8.34E-02
Kidney	Effluent	Child	Drinking Water	3.31 mi E	1.21E-01
Lung	Environmental	Child	Drinking Water	101 (3.31 mi E)	8.34E-02
Lung	Effluent	Child	Drinking Water	3.31 mi E	1.21E-01
GI-LLI	Environmental	Child	Drinking Water	101 (3.31 mi E)	8.34E-02
GI-LLI	Effluent	Child	Drinking Water	3.31 mi E	1.22E-01

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

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

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

GASEOUS RELEASE PATHWAY

## IODINE, PARTICULATE, and TRITIUM

Organ	Environmental or Effluent Data	Critical Age <sup>(1)</sup>	Critical Pathway <sup>(2)</sup>	Location	Maximum Dose <sup>(3)</sup> (mrem)
Skin	Environmental	-	-	-	0.00E+00
Skin	Effluent	All	Ground Plane	1.5 mi. NE	3.25E-05
Bone	Environmental	-	-	-	0.00E+00
Bone	Effluent	Child	Vegetation	1.5 mi. NE	8.75E-01
Liver	Environmental	-	-	-	0.00E+00
Liver	Effluent	Child	Vegetation	1.5 mi. NE	2.88E-01
T. Body	Environmental	-	-	-	0.00E+00
T. Body	Effluent	Child	Vegetation	1.5 mi. NE	2.88E-01
Thyroid	Environmental	-	-	-	0.00E+00
Thyroid	Effluent	Child	Vegetation	1.5 mi. NE	2.88E-01
Kidney	Environmental	-	-	-	0.00E+00
Kidney	Effluent	Child	Vegetation	1.5 mi. NE	2.88E-01
Lung	Environmental	-	-	-	0.00E+00
Lung	Effluent	Child	Vegetation	1.5 mi. NE	2.88E-01
GI-LLI	Environmental	-	-	-	0.00E+00
GI-LLI	Effluent	Child	Vegetation	1.5 mi. NE	2.88E-01

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

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

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

**TABLE 4.1-B**

*Maximum Individual Dose for 2012 based on Environmental Measurements (mrem) for McGuire Nuclear Station*

Age	Sample Medium	Bone	Liver	T. Body	Thyroid	Kidney	Lung	GI-LLI	Skin
<b>Infant</b>	Airborne	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
	Drinking Water	0.00E+00	8.08E-02	8.08E-02	8.08E-02	8.08E-02	8.08E-02	8.08E-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
	<b>TOTAL</b>	0.00E+00	8.08E-02	8.08E-02	8.08E-02	8.08E-02	8.08E-02	8.08E-02	0.00E+00
<b>Child</b>	Airborne	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
	Drinking Water	0.00E+00	8.23E-02	8.23E-02	8.23E-02	8.23E-02	8.23E-02	8.23E-02	0.00E+00
	Milk	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
	Broadleaf Vegetation	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
	Fish	0.00E+00	1.14E-03	1.14E-03	1.14E-03	1.14E-03	1.14E-03	1.14E-03	0.00E+00
	Shoreline Sediment	0.00E+00	0.00E+00	3.35E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	3.91E-05
	<b>TOTAL</b>	0.00E+00	8.34E-02	8.35E-02	8.34E-02	8.34E-02	8.34E-02	8.34E-02	3.91E-05
<b>Teen</b>	Airborne	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
	Drinking Water	0.00E+00	4.30E-02	4.30E-02	4.30E-02	4.30E-02	4.30E-02	4.30E-02	0.00E+00
	Milk	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
	Broadleaf Vegetation	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
	Fish	0.00E+00	1.38E-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	1.61E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00	1.87E-04
	<b>TOTAL</b>	0.00E+00	4.44E-02	4.45E-02	4.44E-02	4.44E-02	4.44E-02	4.44E-02	1.87E-04
<b>Adult</b>	Airborne	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
	Drinking Water	0.00E+00	6.09E-02	6.09E-02	6.09E-02	6.09E-02	6.09E-02	6.09E-02	0.00E+00
	Milk	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
	Broadleaf Vegetation	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
	Fish	0.00E+00	1.80E-03	1.80E-03	1.80E-03	1.80E-03	1.80E-03	1.80E-03	0.00E+00
	Shoreline Sediment	0.00E+00	0.00E+00	2.87E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	3.35E-05
	<b>TOTAL</b>	0.00E+00	6.27E-02	6.27E-02	6.27E-02	6.27E-02	6.27E-02	6.27E-02	3.35E-05

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

**McGuire Nuclear Station**  
**Dose from Drinking Water Pathway for 2012 Data**  
**Maximum Exposed Infant**

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

Usage (intake in one year) = 330 l

Radionuclide	<u>Ingestion Dose Factor</u>							<u>Highest Annual Net Mean Concentration</u>		<u>Dose (mrem)</u>						
	Bone	Liver	T. Body	Thyroid	Kidney	Lung	GI-LLI	Indicator Location	Water (pCi/l)	Bone	Liver	T. Body	Thyroid	Kidney	Lung	GI-LLI
Mn-54	NO DATA	1.99E-05	4.51E-06	NO DATA	4.41E-06	NO DATA	7.31E-06	ALL	0.00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Co-58	NO DATA	3.60E-06	8.98E-06	NO DATA	NO DATA	NO DATA	8.97E-06	ALL	0.00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Fe-59	3.08E-05	5.38E-05	2.12E-05	NO DATA	NO DATA	1.59E-05	2.57E-05	ALL	0.00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Co-60	NO DATA	1.08E-05	2.55E-05	NO DATA	NO DATA	NO DATA	2.57E-05	ALL	0.00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Zn-65	1.84E-05	6.31E-05	2.91E-05	NO DATA	3.06E-05	NO DATA	5.33E-05	ALL	0.00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Nb-95	4.20E-08	1.73E-08	1.00E-08	NO DATA	1.24E-08	NO DATA	1.46E-05	ALL	0.00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Zr-95	2.06E-07	5.02E-08	3.56E-08	NO DATA	5.41E-08	NO DATA	2.50E-05	ALL	0.00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
I-131	3.59E-05	4.23E-05	1.86E-05	1.39E-02	4.94E-05	NO DATA	1.51E-06	ALL	0.00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Cs-134	3.77E-04	7.03E-04	7.10E-05	NO DATA	1.81E-04	7.42E-05	1.91E-06	ALL	0.00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Cs-137	5.22E-04	6.11E-04	4.33E-05	NO DATA	1.64E-04	6.64E-05	1.91E-06	ALL	0.00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
BaLa-140	1.71E-04	1.71E-07	8.81E-06	NO DATA	4.06E-08	1.05E-07	4.20E-05	ALL	0.00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
H-3	NO DATA	3.08E-07	3.08E-07	3.08E-07	3.08E-07	3.08E-07	3.08E-07	101	795	0.00E+00	8.08E-02	8.08E-02	8.08E-02	8.08E-02	8.08E-02	8.08E-02
Dose Commitment (mrem) =										0.00E+00	8.08E-02	8.08E-02	8.08E-02	8.08E-02	8.08E-02	8.08E-02

**McGuire Nuclear Station**  
**Dose from Drinking Water Pathway for 2012 Data**  
**Maximum Exposed Child**

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

Usage (intake in one year) = 510 l

Radionuclide	<u>Ingestion Dose Factor</u>							<u>Highest Annual Net Mean Concentration</u>		<u>Dose (mrem)</u>						
	Bone	Liver	T. Body	Thyroid	Kidney	Lung	GI-LLI	Indicator Location	Water (pCi/l)	Bone	Liver	T. Body	Thyroid	Kidney	Lung	GI-LLI
Mn-54	NO DATA	1.07E-05	2.85E-06	NO DATA	3.00E-06	NO DATA	8.98E-06	ALL	0.00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Co-58	NO DATA	1.80E-06	5.51E-06	NO DATA	NO DATA	NO DATA	1.05E-05	ALL	0.00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Fe-59	1.65E-05	2.67E-05	1.33E-05	NO DATA	NO DATA	7.74E-06	2.78E-05	ALL	0.00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Co-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	795	0.00E+00	8.23E-02	8.23E-02	8.23E-02	8.23E-02	8.23E-02	8.23E-02
Dose Commitment (mrem) =										0.00E+00	8.23E-02	8.23E-02	8.23E-02	8.23E-02	8.23E-02	8.23E-02



**McGuire Nuclear Station**  
**Dose from Fish Pathway for 2012 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 = 906 pCi/l x 0.9 = 815 pCi/kg

Usage (intake in one year) = 6.9 kg

Radionuclide	<u>Ingestion Dose Factor</u>							<u>Highest Annual Net Mean Concentration</u>		<u>Dose (mrem)</u>						
	Bone	Liver	T. Body	Thyroid	Kidney	Lung	GI-LLI	Indicator Location	Fish (pCi/kg)	Bone	Liver	T. Body	Thyroid	Kidney	Lung	GI-LLI
Mn-54	NO DATA	1.07E-05	2.85E-06	NO DATA	3.00E-06	NO DATA	8.98E-06	ALL	0.00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Co-58	NO DATA	1.80E-06	5.51E-06	NO DATA	NO DATA	NO DATA	1.05E-05	ALL	0.00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Fe-59	1.65E-05	2.67E-05	1.33E-05	NO DATA	NO DATA	7.74E-06	2.78E-05	ALL	0.00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
C0-60	NO DATA	5.29E-06	1.56E-05	NO DATA	NO DATA	NO DATA	2.93E-05	ALL	0.00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Zn-65	1.37E-05	3.65E-05	2.27E-05	NO DATA	2.30E-05	NO DATA	6.41E-06	ALL	0.00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Cs-134	2.34E-04	3.84E-04	8.10E-05	NO DATA	1.19E-04	4.27E-05	2.07E-06	ALL	0.00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Cs-137	3.27E-04	3.13E-04	4.62E-05	NO DATA	1.02E-04	3.67E-05	1.96E-06	ALL	0.00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
H-3	NO DATA	2.03E-07	2.03E-07	2.03E-07	2.03E-07	2.03E-07	2.03E-07	128	815	0.00E+00	1.14E-03	1.14E-03	1.14E-03	1.14E-03	1.14E-03	1.14E-03
Dose Commitment (mrem) =										0.00E+00	1.14E-03	1.14E-03	1.14E-03	1.14E-03	1.14E-03	1.14E-03

***McGuire Nuclear Station***  
***Dose from Shoreline Sediment Pathway for 2012 Data***  
***Maximum Exposed Child***

Shoreline Recreation = 14 hr (in one year)  
 Shore Width Factor = 0.3 (lake shore - location 129)  
 Shore Width Factor = 0.2 (river shoreline - location 130)  
 Sediment Surface Mass = 40 kg/m<sup>2</sup>

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

Radionuclide	External Dose Factor Standing on Contaminated Ground		Indicator Location	Highest Annual Net Mean Concentration Sediment (pCi/kg)	Dose	
	(mrem/hr per pCi/m <sup>2</sup> )				(mrem)	
	T. Body	Skin			T. Body	Skin
Mn-54	5.80E-09	6.80E-09	ALL	0.00	0.00E+00	0.00E+00
Co-58	7.00E-09	8.20E-09	ALL	0.00	0.00E+00	0.00E+00
Co-60	1.70E-08	2.00E-08	ALL	0.00	0.00E+00	0.00E+00
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	71.3	3.35E-05	3.91E-05
Dose Commitment (mrem) =					3.35E-05	3.91E-05

**McGuire Nuclear Station**  
**Dose from Drinking Water Pathway for 2012 Data**  
**Maximum Exposed Teen**

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

Usage (intake in one year) = 510 l

Radionuclide	<u>Ingestion Dose Factor</u>							<u>Highest Annual Net Mean Concentration</u>		<u>Dose (mrem)</u>						
	Bone	Liver	T. Body	Thyroid	Kidney	Lung	GI-LLI	Indicator Location	Water (pCi/l)	Bone	Liver	T. Body	Thyroid	Kidney	Lung	GI-LLI
Mn-54	NO DATA	5.90E-06	1.17E-06	NO DATA	1.76E-06	NO DATA	1.21E-05	ALL	0.00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Co-58	NO DATA	9.72E-07	2.24E-06	NO DATA	NO DATA	NO DATA	1.34E-05	ALL	0.00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Fe-59	5.87E-06	1.37E-05	5.29E-06	NO DATA	NO DATA	4.32E-06	3.24E-05	ALL	0.00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Co-60	NO DATA	2.81E-06	6.33E-06	NO DATA	NO DATA	NO DATA	3.66E-05	ALL	0.00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Zn-65	5.76E-06	2.00E-05	9.33E-06	NO DATA	1.28E-05	NO DATA	8.47E-06	ALL	0.00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Nb-95	8.22E-09	4.56E-09	2.51E-09	NO DATA	4.42E-09	NO DATA	1.95E-05	ALL	0.00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Zr-95	4.12E-08	1.30E-08	8.94E-09	NO DATA	1.91E-08	NO DATA	3.00E-05	ALL	0.00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
I-131	5.85E-06	8.19E-06	4.40E-06	2.39E-03	1.41E-05	NO DATA	1.62E-06	ALL	0.00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Cs-134	8.37E-05	1.97E-04	9.14E-05	NO DATA	6.26E-05	2.39E-05	2.45E-06	ALL	0.00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Cs-137	1.12E-04	1.49E-04	5.19E-05	NO DATA	5.07E-05	1.97E-05	2.12E-06	ALL	0.00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
BaLa-140	2.84E-05	3.48E-08	1.83E-06	NO DATA	1.18E-08	2.34E-08	4.38E-05	ALL	0.00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
H-3	NO DATA	1.06E-07	1.06E-07	1.06E-07	1.06E-07	1.06E-07	1.06E-07	101	795	0.00E+00	4.30E-02	4.30E-02	4.30E-02	4.30E-02	4.30E-02	4.30E-02
Dose Commitment (mrem)=										0.00E+00	4.30E-02	4.30E-02	4.30E-02	4.30E-02	4.30E-02	4.30E-02

**McGuire Nuclear Station**  
**Dose from Fish Pathway for 2012 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 = 906 pCi/l x 0.9 = 815 pCi/kg

Usage (intake in one year) = 16 kg

Radionuclide	<u>Ingestion Dose Factor</u>							<u>Highest Annual Net Mean Concentration</u>		<u>Dose (mrem)</u>						
	Bone	Liver	T. Body	Thyroid	Kidney	Lung	GI-LLI	Location	(pCi/kg)	Bone	Liver	T. Body	Thyroid	Kidney	Lung	GI-LLI
Mn-54	NO DATA	5.90E-06	1.17E-06	NO DATA	1.76E-06	NO DATA	1.21E-05	ALL	0.00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Co-58	NO DATA	9.72E-07	2.24E-06	NO DATA	NO DATA	NO DATA	1.34E-05	ALL	0.00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Fe-59	5.87E-06	1.37E-05	5.29E-06	NO DATA	NO DATA	4.32E-06	3.24E-05	ALL	0.00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Co-60	NO DATA	2.81E-06	6.33E-06	NO DATA	NO DATA	NO DATA	3.66E-05	ALL	0.00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Zn-65	5.76E-06	2.00E-05	9.33E-06	NO DATA	1.28E-05	NO DATA	8.47E-06	ALL	0.00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Cs-134	8.37E-05	1.97E-04	9.14E-05	NO DATA	6.26E-05	2.39E-05	2.45E-06	ALL	0.00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Cs-137	1.12E-04	1.49E-04	5.19E-05	NO DATA	5.07E-05	1.97E-05	2.12E-06	ALL	0.00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
H-3	NO DATA	1.06E-07	1.06E-07	1.06E-07	1.06E-07	1.06E-07	1.06E-07	128	815	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 2012 Data**  
**Maximum Exposed Teen**

Shoreline Recreation = 67 hr (in one year)  
 Shore Width Factor = 0.3 (lake shore - location 129)  
 Shore Width Factor = 0.2 (river shoreline - location 130)  
 Sediment Surface Mass = 40 kg/m<sup>2</sup>

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

Radionuclide	External Dose Factor Standing on Contaminated Ground (mrem/hr per pCi/m <sup>2</sup> )		Indicator Location	Sediment Concentration (pCi/kg)	Highest Annual Net Mean Concentration Dose (mrem)	
	T. Body	Skin			T. Body	Skin
Mn-54	5.80E-09	6.80E-09	ALL	0.00	0.00E+00	0.00E+00
Co-58	7.00E-09	8.20E-09	ALL	0.00	0.00E+00	0.00E+00
Co-60	1.70E-08	2.00E-08	ALL	0.00	0.00E+00	0.00E+00
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	71.3	1.61E-04	1.87E-04
Dose Commitment (mrem) =					1.61E-04	1.87E-04

**McGuire Nuclear Station**  
**Dose from Drinking Water Pathway for 2012 Data**  
**Maximum Exposed Adult**

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

Usage (intake in one year) = 730 l

Radionuclide	<u>Ingestion Dose Factor</u>							<u>Highest Annual Net Mean Concentration</u>		<u>Dose (mrem)</u>						
	Bone	Liver	T. Body	Thyroid	Kidney	Lung	GI-LLI	Indicator Location	Water (pCi/l)	Bone	Liver	T. Body	Thyroid	Kidney	Lung	GI-LLI
Mn-54	NO DATA	4.57E-06	8.72E-07	NO DATA	1.36E-06	NO DATA	1.40E-05	ALL	0.00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Co-58	NO DATA	7.45E-07	1.67E-06	NO DATA	NO DATA	NO DATA	1.51E-05	ALL	0.00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Fe-59	4.34E-06	1.02E-05	3.91E-06	NO DATA	NO DATA	2.85E-06	3.40E-05	ALL	0.00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Co-60	NO DATA	2.14E-06	4.72E-06	NO DATA	NO DATA	NO DATA	4.02E-05	ALL	0.00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Zn-65	4.84E-06	1.54E-05	6.96E-06	NO DATA	1.03E-05	NO DATA	9.70E-06	ALL	0.00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Nb-95	6.22E-09	3.46E-09	1.86E-09	NO DATA	3.42E-09	NO DATA	2.10E-05	ALL	0.00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Zr-95	3.04E-08	9.75E-09	6.60E-09	NO DATA	1.53E-08	NO DATA	3.09E-05	ALL	0.00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
I-131	4.16E-06	5.95E-06	3.41E-06	1.95E-03	1.02E-05	NO DATA	1.57E-06	ALL	0.00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Cs-134	6.22E-05	1.48E-04	1.21E-04	NO DATA	4.79E-05	1.59E-05	2.59E-06	ALL	0.00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Cs-137	7.97E-05	1.09E-04	7.14E-05	NO DATA	3.70E-05	1.23E-05	2.11E-06	ALL	0.00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
BaLa-140	2.03E-05	2.55E-08	1.33E-06	NO DATA	8.67E-09	1.46E-08	4.18E-05	ALL	0.00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
H-3	NO DATA	1.05E-07	1.05E-07	1.05E-07	1.05E-07	1.05E-07	1.05E-07	101	795	0.00E+00	6.09E-02	6.09E-02	6.09E-02	6.09E-02	6.09E-02	6.09E-02
Dose Commitment (mrem) =										0.00E+00	6.09E-02	6.09E-02	6.09E-02	6.09E-02	6.09E-02	6.09E-02

**McGuire Nuclear Station**  
**Dose from Fish Pathway for 2012 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 = 906 pCi/l x 0.9 = 815 pCi/kg

Usage (intake in one year) = 21 kg

Radionuclide	<u>Ingestion Dose Factor</u>							<u>Highest Annual Net Mean Concentration</u>		<u>Dose (mrem)</u>						
	Bone	Liver	T. Body	Thyroid	Kidney	Lung	GI-LLI	Location	(pCi/kg)	Bone	Liver	T. Body	Thyroid	Kidney	Lung	GI-LLI
Mn-54	NO DATA	4.57E-06	8.72E-07	NO DATA	1.36E-06	NO DATA	1.40E-05	ALL	0.00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Co-58	NO DATA	7.45E-07	1.67E-06	NO DATA	NO DATA	NO DATA	1.51E-05	ALL	0.00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Fe-59	4.34E-06	1.02E-05	3.91E-06	NO DATA	NO DATA	2.85E-06	3.40E-05	ALL	0.00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Co-60	NO DATA	2.14E-06	4.72E-06	NO DATA	NO DATA	NO DATA	4.02E-05	ALL	0.00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Zn-65	4.84E-06	1.54E-05	6.96E-06	NO DATA	1.03E-05	NO DATA	9.70E-06	ALL	0.00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Cs-134	6.22E-05	1.48E-04	1.21E-04	NO DATA	4.79E-05	1.59E-05	2.59E-06	ALL	0.00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Cs-137	7.97E-05	1.09E-04	7.14E-05	NO DATA	3.70E-05	1.23E-05	2.11E-06	ALL	0.0	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	815	0.00E+00	1.80E-03	1.80E-03	1.80E-03	1.80E-03	1.80E-03	1.80E-03
Dose Commitment (mrem) =										0.00E+00	1.80E-03	1.80E-03	1.80E-03	1.80E-03	1.80E-03	1.80E-03

***McGuire Nuclear Station***  
***Dose from Shoreline Sediment Pathway for 2012 Data***  
***Maximum Exposed Adult***

Shoreline Recreation = 12 hr (in one year)  
 Shore Width Factor = 0.3 (lake shore - location 129)  
 Shore Width Factor = 0.2 (river shoreline - location 130)  
 Sediment Surface Mass = 40 kg/m<sup>2</sup>

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

Radionuclide	External Dose Factor Standing <u>on Contaminated Ground</u> (mrem/hr per pCi/m <sup>2</sup> )		Highest Annual Net <u>Mean Concentration</u>		<u>Dose</u> (mrem)	
	T. Body	Skin	Indicator Location	Sediment (pCi/kg)	T. Body	Skin
Mn-54	5.80E-09	6.80E-09	ALL	0.00	0.00E+00	0.00E+00
Co-58	7.00E-09	8.20E-09	ALL	0.00	0.00E+00	0.00E+00
Co-60	1.70E-08	2.00E-08	ALL	0.00	0.00E+00	0.00E+00
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	71.3	2.87E-05	3.35E-05
Dose Commitment (mrem) =					2.87E-05	3.35E-05



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## **5.0 QUALITY ASSURANCE**

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### **5.1 SAMPLE COLLECTION**

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

### **5.2 SAMPLE ANALYSIS**

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

### **5.3 DOSIMETRY ANALYSIS**

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

### **5.4 LABORATORY EQUIPMENT QUALITY ASSURANCE**

#### **5.4.1 DAILY QUALITY CONTROL**

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

#### **5.4.2 CALIBRATION VERIFICATION**

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

#### **5.4.3 BATCH PROCESSING**

Method quality control samples are analyzed with sample analyses that are processed in batches. These include gross beta in drinking water and all tritium analyses.

### **5.5 DUKE ENERGY INTERCOMPARISON PROGRAM**

EnRad Laboratories participated in the Duke Energy Nuclear Generation Department Intercomparison Program during 2012. Interlaboratory cross-check standards, including Marinelli beakers, air filters, air cartridges, gross beta in water, and tritium in water

samples were analyzed at various times of the year. A summary of the EnRad Laboratory program results for 2012 is documented in Table 5.0-A.

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

EnRad Laboratories participated in the Eckert & Ziegler Analytics Cross Check Program during 2012. Cross-check standards including, Marinelli beakers, air filters, tritium in water, and Iodine in milk samples were analyzed at various times of the year. A summary of the EnRad Laboratory program results for 2012 is documented in Table 5.0-B.

## **5.7 ERA PROFICIENCY TESTING**

EnRad Laboratories performed method proficiency testing through a program administered by Environmental Resource Associates (ERA) of Arvada, CO. ERA supplied requested method proficiency samples for analysis and nuclide concentration determination. ERA reported proficiency test results to the North Carolina Department of Health and Human Services, North Carolina Public Health Drinking Water Laboratory Certification Program. A summary of these proficiency test data for 2012 is documented in Table 5.0-C.

## **5.8 DUKE ENERGY AUDITS**

The McGuire Nuclear Station Radiological Environmental Monitoring Program was audited by the Quality Assurance Group in 2012 (reference 6.12). Audits at Catawba, Oconee, and EnRad Laboratories identified procedure and report enhancements (references 6.17, 6.18, 6.19). No environmental monitoring issues were identified.

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

The McGuire Nuclear Station Radiological Environmental Monitoring Program was not audited by the NRC in 2012. The program was audited by the NRC in 2011 (reference 6.13). There were no REMP findings identified by the 2011 audit.

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

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

## **5.11 TLD INTERCOMPARISON PROGRAM**

### **5.11.1 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 Nuclear Technology Services Intercomparison Report is documented in Table 5.0-D.

### **5.11.2 INTERNAL CROSSCHECK (DUKE ENERGY)**

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

# TABLE 5.0-A

## DUKE ENERGY

### INTERLABORATORY COMPARISON PROGRAM

#### 2012 CROSS-CHECK RESULTS FOR ENRAD LABORATORIES

Cross-Check samples are normally analyzed a minimum of three times. A status of "3 Pass" indicates that all three analyses yielded results within the designated acceptance range. A status of "2 Pass" indicates that two analyses of the cross check was performed and both analyses yielded results within the designated acceptance range. A status of "1 Pass" indicates that one analysis of the cross-check was performed and yielded results within the designated acceptance range. If applicable, footnote explanations are included following this table.

#### *Gamma in Water 3.5 liters*

Reference Date	Sample I.D.	Nuclide	Acceptance Range pCi/l	Reference Value pCi/l	Mean Reported Value pCi/l	Cross Check Status
2/28/2012	Q121GWR	Cr-51	6.92 - 12.27 E3	9.23 E3	9.10 E3	3 Pass
		Mn-54	2.15 - 3.81 E3	2.87 E3	3.01 E3	3 Pass
		Co-58	1.64 - 2.90 E3	2.18 E3	2.18 E3	3 Pass
		Fe-59	2.29 - 4.06 E3	3.05 E3	3.19 E3	3 Pass
		Co-60	2.98 - 5.28 E3	3.97 E3	4.12 E3	3 Pass
		Zn-65	3.69 - 6.55 E3	4.93 E3	5.09 E3	3 Pass
		Cs-134	1.62 - 2.86 E3	2.15 E3	1.95 E3	3 Pass
		Ce-141	1.69 - 3.00 E3	2.25 E3	2.18 E3	3 Pass
5/31/2012	Q122GWR	Cr-51	2.66 - 4.72 E3	3.55 E3	3.76 E3	3 Pass
		Mn-54	6.35 - 11.26 E2	8.46 E2	9.00 E2	3 Pass
		Co-58	4.96 - 8.80 E2	6.62 E2	6.78 E2	3 Pass
		Fe-59	7.41 - 13.13 E2	9.87 E2	10.73 E2	3 Pass
		Co-60	1.67 - 2.96 E3	2.22 E3	2.31 E3	3 Pass
		Zn-65	0.97 - 1.71 E3	1.29 E3	1.40 E3	3 Pass
		Cs-134	0.83 - 1.47 E3	1.10 E3	1.06 E3	3 Pass
		Ce-141	0.99 - 1.76 E3	1.32 E3	1.30 E3	3 Pass
8/23/2012	Q123GWSL	Cr-51	1.76 - 3.12 E5	2.34 E5	2.24 E5	3 Pass
		Mn-54	0.84 - 1.49 E5	1.12 E5	1.12 E5	3 Pass
		Co-58	5.08 - 9.01 E4	6.77 E4	6.54 E4	3 Pass
		Fe-59	0.87 - 1.55 E5	1.17 E5	1.19 E5	3 Pass
		Co-60	6.27 - 11.12 E4	8.36 E4	8.52 E4	3 Pass
		Zn-65	0.84 - 1.48 E5	1.11 E5	1.14 E5	3 Pass
		Cs-134	4.50 - 7.99 E4	6.00 E4	5.57 E4	3 Pass
		Ce-141	7.12 - 12.63 E4	9.50 E4	8.71 E4	3 Pass

**Gamma in Water 3.5 liters, continued**

Reference Date	Sample I.D.	Nuclide	Acceptance Range pCi/l	Reference Value pCi/l	Mean Reported Value pCi/l	Cross Check Status
12/3/2012	Q124GWR	Cr-51	6.84 - 12.10 E3	9.12 E3	9.19 E3	2 Pass
		Mn-54	2.12 - 3.75 E3	2.82 E3	2.92 E3	2 Pass
		Co-58	1.86 - 3.30 E3	2.48 E3	2.48 E3	2 Pass
		Fe-59	2.21 - 3.92 E3	2.95 E3	3.09 E3	2 Pass
		Co-60	3.11 - 5.51 E3	4.14 E3	4.36 E3	2 Pass
		Zn-65	3.42 - 6.06 E3	4.56 E3	4.74 E3	2 Pass
		Cs-134	3.04 - 5.39 E3	4.05 E3	3.98 E3	2 Pass
		Cs-137	2.13 - 3.78 E3	2.84 E3	2.72 E3	2 Pass
		Ce-141	0.99 - 1.76 E3	1.32 E3	1.36 E3	2 Pass

**Gamma in Water 1.0 liter**

Reference Date	Sample I.D.	Nuclide	Acceptance Range pCi/l	Reference Value pCi/l	Mean Reported Value pCi/l	Cross Check Status
2/28/2012	Q121GWR	Cr-51	6.92 - 12.27 E3	9.23 E3	8.95 E3	3 Pass
		Mn-54	2.15 - 3.81 E3	2.87 E3	2.87 E3	3 Pass
		Co-58	1.64 - 2.90 E3	2.18 E3	2.07 E3	3 Pass
		Fe-59	2.29 - 4.06 E3	3.05 E3	3.05 E3	3 Pass
		Co-60	2.98 - 5.28 E3	3.97 E3	3.93 E3	3 Pass
		Zn-65	3.69 - 6.55 E3	4.93 E3	4.85 E3	3 Pass
		Cs-134	1.62 - 2.86 E3	2.15 E3	1.86 E3	3 Pass
		Cs-137	1.69 - 3.00 E3	2.25 E3	2.08 E3	3 Pass
		Ce-141	3.89 - 6.90 E3	5.19 E3	4.85 E3	3 Pass
5/31/2012	Q122GWR	Cr-51	2.66 - 4.72 E3	3.55 E3	3.69 E3	3 Pass
		Mn-54	6.35 - 11.26 E2	8.46 E2	8.96 E2	3 Pass
		Co-58	4.96 - 8.80 E2	6.62 E2	6.64 E2	3 Pass
		Fe-59	7.41 - 13.13 E2	9.87 E2	10.53 E2	3 Pass
		Co-60	1.67 - 2.96 E3	2.22 E3	2.27 E3	3 Pass
		Zn-65	0.97 - 1.71 E3	1.29 E3	1.39 E3	3 Pass
		Cs-134	0.83 - 1.47 E3	1.10 E3	1.04 E3	3 Pass
		Cs-137	0.99 - 1.76 E3	1.32 E3	1.29 E3	3 Pass
		Ce-141	5.19 - 9.20 E2	6.92 E2	6.86 E2	3 Pass
8/23/2012	Q123GWSL	Cr-51	1.76 - 3.12 E5	2.34 E5	2.23 E5	3 Pass
		Mn-54	0.84 - 1.49 E5	1.12 E5	1.12 E5	3 Pass
		Co-58	5.08 - 9.01 E4	6.77 E4	6.64 E4	3 Pass
		Fe-59	0.87 - 1.55 E5	1.17 E5	1.19 E5	3 Pass
		Co-60	6.27 - 11.12 E4	8.36 E4	8.42 E4	3 Pass
		Zn-65	0.84 - 1.48 E5	1.11 E5	1.13 E5	3 Pass
		Cs-134	4.50 - 7.99 E4	6.00 E4	5.62 E4	3 Pass
		Cs-137	7.12 - 12.63 E4	9.50 E4	8.84 E4	3 Pass
		Ce-141	1.07 - 1.89 E5	1.42 E5	1.36 E5	3 Pass

**Gamma in Water 1.0 liter, continued**

Reference Date	Sample I.D.	Nuclide	Acceptance Range pCi/l	Reference Value pCi/l	Mean Reported Value pCi/l	Cross Check Status
12/3/2012	Q124GWR	Cr-51	6.84 - 12.10 E3	9.12 E3	9.55 E3	1 Pass
		Mn-54	2.12 - 3.75 E3	2.82 E3	3.07 E3	1 Pass
		Co-58	1.86 - 3.30 E3	2.48 E3	2.60 E3	1 Pass
		Fe-59	2.21 - 3.92 E3	2.95 E3	3.24 E3	1 Pass
		Co-60	3.11 - 5.51 E3	4.14 E3	4.49 E3	1 Pass
		Zn-65	3.42 - 6.06 E3	4.56 E3	5.08 E3	1 Pass
		Cs-134	3.04 - 5.39 E3	4.05 E3	3.98 E3	1 Pass
		Cs-137	2.13 - 3.78 E3	2.84 E3	2.84 E3	1 Pass
Ce-141	0.99 - 1.76 E3	1.32 E3	1.38 E3	1 Pass		

**Gamma in Water 0.5 liter**

Reference Date	Sample I.D.	Nuclide	Acceptance Range pCi/l	Reference Value pCi/l	Mean Reported Value pCi/l	Cross Check Status
2/28/2012	Q121GWR	Cr-51	6.92 - 12.27 E3	9.23 E3	8.85 E3	3 Pass
		Mn-54	2.15 - 3.81 E3	2.87 E3	2.90 E3	3 Pass
		Co-58	1.64 - 2.90 E3	2.18 E3	2.07 E3	3 Pass
		Fe-59	2.29 - 4.06 E3	3.05 E3	3.11 E3	3 Pass
		Co-60	2.98 - 5.28 E3	3.97 E3	3.96 E3	3 Pass
		Zn-65	3.69 - 6.55 E3	4.93 E3	4.93 E3	3 Pass
		Cs-134	1.62 - 2.86 E3	2.15 E3	1.81 E3	3 Pass
		Cs-137	1.69 - 3.00 E3	2.25 E3	2.08 E3	3 Pass
Ce-141	3.89 - 6.90 E3	5.19 E3	4.91 E3	3 Pass		
5/31/2012	Q122GWR	Cr-51	2.66 - 4.72 E3	3.55 E3	3.65 E3	3 Pass
		Mn-54	6.35 - 11.26 E2	8.46 E2	8.84 E2	3 Pass
		Co-58	4.96 - 8.80 E2	6.62 E2	6.50 E2	3 Pass
		Fe-59	7.41 - 13.13 E2	9.87 E2	10.73 E2	3 Pass
		Co-60	1.67 - 2.96 E3	2.22 E3	2.23 E3	3 Pass
		Zn-65	0.97 - 1.71 E3	1.29 E3	1.38 E3	3 Pass
		Cs-134	0.83 - 1.47 E3	1.10 E3	0.97 E3	3 Pass
		Cs-137	0.99 - 1.76 E3	1.32 E3	1.26 E3	3 Pass
Ce-141	5.19 - 9.20 E2	6.92 E2	6.77 E2	3 Pass		
8/23/2012	Q123GWSL	Cr-51	1.76 - 3.12 E5	2.34 E5	2.28 E5	3 Pass
		Mn-54	0.84 - 1.49 E5	1.12 E5	1.15 E5	3 Pass
		Co-58	5.08 - 9.01 E4	6.77 E4	6.68 E4	3 Pass
		Fe-59	0.87 - 1.55 E5	1.17 E5	1.22 E5	3 Pass
		Co-60	6.27 - 11.12 E4	8.36 E4	8.61 E4	3 Pass
		Zn-65	0.84 - 1.48 E5	1.11 E5	1.17 E5	3 Pass
		Cs-134	4.50 - 7.99 E4	6.00 E4	5.56 E4	3 Pass
		Cs-137	7.12 - 12.63 E4	9.50 E4	8.97 E4	3 Pass
Ce-141	1.07 - 1.89 E5	1.42 E5	1.38 E5	3 Pass		

**Gamma in Water 0.5 liter, continued**

Reference Date	Sample I.D.	Nuclide	Acceptance Range pCi/l	Reference Value pCi/l	Mean Reported Value pCi/l	Cross Check Status
12/3/2012	Q124GWR	Cr-51	6.84 - 12.10 E3	9.12 E3	9.30 E3	1 Pass
		Mn-54	2.12 - 3.75 E3	2.82 E3	2.88 E3	1 Pass
		Co-58	1.86 - 3.30 E3	2.48 E3	2.44 E3	1 Pass
		Fe-59	2.21 - 3.92 E3	2.95 E3	3.13 E3	1 Pass
		Co-60	3.11 - 5.51 E3	4.14 E3	4.26 E3	1 Pass
		Zn-65	3.42 - 6.06 E3	4.56 E3	4.74 E3	1 Pass
		Cs-134	3.04 - 5.39 E3	4.05 E3	3.84 E3	1 Pass
		Cs-137	2.13 - 3.78 E3	2.84 E3	2.69 E3	1 Pass
		Ce-141	0.99 - 1.76 E3	1.32 E3	1.33 E3	1 Pass

**Gamma in Water 0.25 liter**

Reference Date	Sample I.D.	Nuclide	Acceptance Range pCi/l	Reference Value pCi/l	Mean Reported Value pCi/l	Cross Check Status
2/28/2012	Q121GWR	Cr-51	6.92 - 12.27 E3	9.23 E3	8.90 E3	3 Pass
		Mn-54	2.15 - 3.81 E3	2.87 E3	2.95 E3	3 Pass
		Co-58	1.64 - 2.90 E3	2.18 E3	2.11 E3	3 Pass
		Fe-59	2.29 - 4.06 E3	3.05 E3	3.10 E3	3 Pass
		Co-60	2.98 - 5.28 E3	3.97 E3	3.93 E3	3 Pass
		Zn-65	3.69 - 6.55 E3	4.93 E3	4.96 E3	3 Pass
		Cs-134	1.62 - 2.86 E3	2.15 E3	1.82 E3	3 Pass
		Cs-137	1.69 - 3.00 E3	2.25 E3	2.11 E3	3 Pass
		Ce-141	3.89 - 6.90 E3	5.19 E3	4.91 E3	3 Pass

**Gamma in Filter**

Reference Date	Sample I.D.	Nuclide	Acceptance Range pCi	Reference Value pCi	Mean Reported Value pCi	Cross Check Status
9/13/2012	E10237	Cr-51	1.61 - 2.85 E2	2.14 E2	2.04 E2	1 Pass
		Mn-54	1.27 - 2.25 E2	1.69 E2	1.68 E2	1 Pass
		Co-58	6.50 - 11.53 E1	8.67 E1	8.43 E1	1 Pass
		Fe-59	0.96 - 1.79 E2	1.31 E2	1.31 E2	1 Pass
		Co-60	0.98 - 1.74 E2	1.31 E2	1.36 E2	1 Pass
		Zn-65	1.25 - 2.21 E2	1.66 E2	1.70 E2	1 Pass
		Cs-134	7.01 - 12.42 E1	9.34 E1	9.12 E1	1 Pass
		Cs-137	1.13 - 2.00 E2	1.50 E2	1.37 E2	1 Pass
		Ce-141	1.06 - 1.88 E2	1.41 E2	1.34 E2	1 Pass
12/6/2012	E10318	Cr-51	2.81 - 4.99 E2	3.75 E2	3.14 E2	1 Pass
		Mn-54	0.94 - 1.66 E2	1.25 E2	1.20 E2	1 Pass
		Co-58	0.80 - 1.41 E1	1.06 E2	1.05 E2	1 Pass
		Fe-59	0.94 - 1.66 E2	1.25 E2	1.29 E2	1 Pass
		Co-60	1.38 - 2.45 E2	1.84 E2	1.95 E2	1 Pass
		Zn-65	1.51 - 2.67 E2	2.01 E2	1.84 E2	1 Pass
		Cs-134	1.34 - 2.38 E1	1.79 E2	1.71 E2	1 Pass
		Cs-137	0.95 - 1.68 E2	1.26 E2	1.19 E2	1 Pass
		Ce-141	4.13 - 7.33 E1	5.51 E1	4.60 E1	1 Pass

***Iodine in Milk***

Reference Date	Sample I.D.	Nuclide	Acceptance Range pCi/l	Reference Value pCi/l	Mean Reported Value pCi/l	Cross Check Status
7/17/2012	Q123LIM1	I-131	1.44 - 2.55 E2	1.92 E2	1.95 E2	3 Pass
7/17/2012	Q123LIM2	I-131	1.52 - 2.70 E3	2.03 E3	2.09 E3	3 Pass
7/17/2012	Q123LIM3	I-131	4.28 - 7.58 E2	5.70 E2	5.90 E2	3 Pass

***Iodine on Cartridge***

Reference Date	Sample I.D.	Nuclide	Acceptance Range pCi	Reference Value pCi	Mean Reported Value pCi	Cross Check Status
9/13/2012	E10238	I-131	7.29 - 12.93 E1	9.72 E1	10.02 E1	2 Pass
12/6/2012	E10319	I-131	5.45 - 9.67 E1	7.27 E1	7.50 E1	3 Pass

***Beta in Water***

Reference Date	Sample I.D.	Nuclide	Acceptance Range pCi/l	Reference Value pCi/l	Mean Reported Value pCi/l	Cross Check Status
6/6/2012	Q122ABW1	Cs-137	6.89 - 12.21 E1	9.18 E1	9.22 E1	3 Pass
6/6/2012	Q122ABW2	Cs-137	2.89 - 5.12 E2	3.85 E2	3.99 E2	3 Pass
6/6/2012	Q122ABW3	Cs-137	1.71 - 3.03 E2	2.28 E2	2.34 E2	3 Pass

***Beta Air Particulate***

Reference Date	Sample I.D.	Nuclide	Acceptance Range pCi	Reference Value pCi	Mean Reported Value pCi	Cross Check Status
5/11/2012	A27290A	Cs-137	6.40 - 11.34 E2	8.53 E2	8.51 E2	3 Pass
8/17/2012	A27829	Cs-137	6.05 - 10.72 E2	8.06 E2	7.76 E2	3 Pass



***Tritium in Water***

Reference Date	Sample I.D.	Nuclide	Acceptance Range pCi/l	Reference Value pCi/l	Mean Reported Value pCi/l	Cross Check Status
2/28/2012	Q121TWR1	H-3	1.45 - 2.57 E6	1.93 E6	1.94 E6	3 Pass
2/28/2012	Q121TWR2	H-3	3.22 - 5.70 E5	4.29 E5	4.33 E5	3 Pass
2/28/2012	Q121TWR3	H-3	4.83 - 8.57 E3	6.44 E3	6.43 E3	3 Pass
5/31/2012	Q122TWR1	H-3	7.49 - 13.28 E3	9.98 E3	10.07 E3	3 Pass
5/31/2012	Q122TWR2	H-3	5.35 - 9.49 E2	7.14 E2	7.17 E2	3 Pass
5/31/2012	Q122TWR3	H-3	1.85 - 3.28 E3	2.47 E3	2.46 E3	3 Pass
8/23/2012	Q123TWR1	H-3	5.05 - 8.96 E5	6.74 E5	6.81 E5	3 Pass
8/23/2012	Q123TWR2	H-3	2.17 - 3.85 E6	2.89 E6	2.89 E6	3 Pass
8/23/2012	Q123TWR3	H-3	4.96 - 8.80 E2	6.61 E2	7.26 E2	3 Pass

# TABLE 5.0-B

## ECKERT & ZIEGLER ANALYTICS CROSS CHECK PROGRAM

### 2012 CROSS-CHECK RESULTS FOR ENRAD LABORATORIES

Cross-Check samples are received, prepared, and analyzed. Results are reported directly to Eckert & Ziegler Analytics. If applicable, footnote explanations are included following this table.

#### *Gamma in Water 3.5 liters*

Reference Date	Sample I.D.	Nuclide	Acceptance Range Ratio	Reference Value pCi/l	Reported Value pCi/l	Ratio	Cross Check Status
3/15/2012	E10049	I-131	0.80 - 1.20	9.38E+01	9.78E+01	1.04	Pass
		Ce-141	0.80 - 1.20	1.84E+02	1.90E+02	1.03	Pass
		Cr-51	0.80 - 1.20	3.09E+02	3.14E+02	1.02	Pass
		Cs-134	0.80 - 1.20	1.06E+02	9.65E+01	0.91	Pass
		Cs-137	0.80 - 1.20	1.13E+02	1.12E+02	1.00	Pass
		Co-58	0.80 - 1.20	9.34E+01	9.33E+01	1.00	Pass
		Mn-54	0.80 - 1.20	1.38E+02	1.45E+02	1.05	Pass
		Fe-59	0.80 - 1.20	1.19E+02	1.31E+02	1.10	Pass
		Zn-65	0.80 - 1.20	2.35E+02	2.42E+02	1.03	Pass
Co-60	0.80 - 1.20	1.97E+02	2.10E+02	1.07	Pass		
9/13/2012	E10242	I-131	0.80 - 1.20	9.99E+01	1.05E+02	1.05	Pass
		Ce-141	0.80 - 1.20	2.51E+02	2.56E+02	1.02	Pass
		Cr-51	0.80 - 1.20	3.80E+02	4.08E+02	1.07	Pass
		Cs-134	0.80 - 1.20	1.66E+02	1.52E+02	0.92	Pass
		Cs-137	0.80 - 1.20	2.67E+02	2.58E+02	0.97	Pass
		Co-58	0.80 - 1.20	1.54E+02	1.50E+02	0.97	Pass
		Mn-54	0.80 - 1.20	3.00E+02	3.06E+02	1.02	Pass
		Fe-59	0.80 - 1.20	2.33E+02	2.45E+02	1.05	Pass
		Zn-65	0.80 - 1.20	2.95E+02	3.16E+02	1.07	Pass
Co-60	0.80 - 1.20	2.33E+02	2.43E+02	1.04	Pass		

#### *Gamma in Milk*

Reference Date	Sample I.D.	Nuclide	Acceptance Range Ratio	Reference Value pCi/l	Reported Value pCi/l	Ratio	Cross Check Status
6/14/2012	E10142	I-131	0.80 - 1.20	9.97E+01	9.84E+01	0.99	Pass
		Ce-141	0.80 - 1.20	8.22E+01	8.25E+01	1.00	Pass
		Cr-51	0.80 - 1.20	4.02E+02	4.20E+02	1.05	Pass
		Cs-134	0.80 - 1.20	1.74E+02	1.59E+02	0.91	Pass
		Cs-137	0.80 - 1.20	2.12E+02	2.11E+02	1.00	Pass
		Co-58	0.80 - 1.20	9.23E+01	9.37E+01	1.01	Pass
		Mn-54	0.80 - 1.20	1.32E+02	1.35E+02	1.02	Pass
		Fe-59	0.80 - 1.20	1.28E+02	1.37E+02	1.07	Pass
		Zn-65	0.80 - 1.20	1.99E+02	2.05E+02	1.03	Pass
Co-60	0.80 - 1.20	3.55E+02	3.64E+02	1.02	Pass		

**Gamma in Filter**

Reference Date	Sample I.D.	Nuclide	Acceptance Range Ratio	Reference Value pCi	Reported Value pCi	Ratio	Cross Check Status
6/14/2012	E10138	Ce-141	0.80 - 1.20	7.50E+01	8.35E+01	1.11	Pass
		Cr-51	0.80 - 1.20	3.66E+02	3.71E+02	1.01	Pass
		Cs-134	0.80 - 1.20	1.59E+02	1.64E+02	1.03	Pass
		Cs-137	0.80 - 1.20	1.93E+02	1.89E+02	0.98	Pass
		Co-58	0.80 - 1.20	8.42E+01	8.93E+01	1.06	Pass
		Mn-54	0.80 - 1.20	1.21E+02	1.24E+02	1.03	Pass
		Fe-59	0.80 - 1.20	1.17E+02	1.32E+02	1.13	Pass
		Zn-65	0.80 - 1.20	1.82E+02	2.02E+02	1.11	Pass
		Co-60	0.80 - 1.20	3.24E+02	3.42E+02	1.05	Pass
9/13/2012	E10244	Ce-141	0.80 - 1.20	1.29E+02	1.32E+02	1.03	Pass
		Cr-51	0.80 - 1.20	1.95E+02	2.04E+02	1.05	Pass
		Cs-134	0.80 - 1.20	8.51E+01	8.90E+01	1.05	Pass
		Cs-137	0.80 - 1.20	1.37E+02	1.40E+02	1.02	Pass
		Co-58	0.80 - 1.20	7.89E+01	8.59E+01	1.09	Pass
		Mn-54	0.80 - 1.20	1.54E+02	1.63E+02	1.06	Pass
		Fe-59	0.80 - 1.20	1.19E+02	1.36E+02	1.14	Pass
		Zn-65	0.80 - 1.20	1.51E+02	1.67E+02	1.10	Pass
		Co-60	0.80 - 1.20	1.19E+02	1.30E+02	1.09	Pass

**Iodine in Milk**

Reference Date	Sample I.D.	Nuclide	Acceptance Range Ratio	Reference Value pCi/l	Reported Value pCi/l	Ratio	Cross Check Status
9/13/2012	E10239	I-131	0.80 - 1.20	9.98E+01	1.00E+02	1.00	Pass

**I-131 in Charcoal Cartridge**

Reference Date	Sample I.D.	Nuclide	Acceptance Range Ratio	Reference Value pCi	Reported Value pCi	Ratio	Cross Check Status
6/14/2012	E10139	I-131	0.80 - 1.20	9.73E+01	9.24E+01	0.95	Pass

**Beta in Water**

Reference Date	Sample I.D.	Nuclide	Acceptance Range Ratio	Reference Value pCi/l	Reported Value pCi/l	Ratio	Cross Check Status
6/14/2012	E10140	Cs-137	0.80 - 1.20	1.48E+02	1.63E+02	1.10	Pass

**Beta in Air Filter**

Reference Date	Sample I.D.	Nuclide	Acceptance Range Ratio	Reference Value pCi	Reported Value pCi	Ratio	Cross Check Status
3/15/2012	E10050A	Cs-137	0.80 - 1.20	1.61E+02	1.62E+02	1.01	Pass
9/13/2012	E10240	Cs-137	0.80 - 1.20	1.67E+02	1.52E+02	0.91	Pass
9/13/2012	E10241	Cs-137	0.80 - 1.20	9.10E+01	8.46E+01	0.93	Pass

*Tritium in Water*

Reference Date	Sample I.D.	Nuclide	Acceptance Range Ratio	Reference Value pCi/l	Reported Value pCi/l	Ratio	Cross Check Status
3/15/2012	E10052	H-3	0.80 - 1.20	4.47E+03	4.28E+03	0.96	Pass
6/14/2012	E10141	H-3	0.80 - 1.20	4.97E+03	4.70E+03	0.95	Pass
9/13/2012	E10243	H-3	0.80 - 1.20	1.30E+04	1.31E+04	1.01	Pass

# TABLE 5.0-C

## ENVIRONMENTAL RESOURCE ASSOCIATES (ERA) PROFICIENCY TESTING

### 2012 PROFICIENCY TEST RESULTS FOR ENRAD LABORATORIES

North Carolina Department of Health and Human Services Laboratory Certification  
EnRad Laboratories, Laboratory Number 37817

Proficiency test samples are received, prepared, analyzed, and reported to Environmental Resource Associates as described in the instruction package within the study period. Proficiency test data are reported to ERA for evaluation. ERA reports proficiency test results to the North Carolina Department of Health and Human Services, North Carolina Public Drinking Water Laboratory Certification Program.

If applicable, footnote explanations are included following this data table.

#### *Gamma Emitters in Water*

Reference Date	Sample I.D.	Nuclide	Acceptance Range pCi/l	Reference Value pCi/l	Reported Value pCi/l	Proficiency Check Status
4/9/2012	RAD-89*	Ba-133	69.1 - 90.5	8.23E+01	8.21E+01	Pass
		Cs-134	60.6 - 81.6	7.42E+01	6.86E+01	Pass
		Cs-137	140 - 172	1.55E+02	1.45E+02	Pass
		Co-60	65.6 - 82.6	7.29E+01	7.78E+01	Pass
		Zn-65	94.5 - 125	1.05E+02	1.14E+02	Pass
10/5/2012	RAD-91**	Ba-133	71.3 - 93.3	8.48E+01	8.60E+01	Pass
		Cs-134	62.6 - 84.3	7.66E+01	6.41E+01	Pass
		Cs-137	165 - 203	1.83E+02	1.68E+02	Pass
		Co-60	70.5 - 88.5	7.83E+01	7.88E+01	Pass
		Zn-65	184 - 240	2.04E+02	2.09E+02	Pass

#### *Tritium in Water*

Reference Date	Sample I.D.	Nuclide	Acceptance Range pCi/l	Reference Value pCi/l	Reported Value pCi/l	Proficiency Check Status
4/9/2012	RAD-89*	H-3	13800 - 17400	1.58E+04	1.52E+04	Pass
10/5/2012	RAD-91**	H-3	4190 - 5380	4.89E+03	4.80E+03	Pass

\* ERA study period 4/9/2012 - 5/24/2012, ERA data report issue date 6/4/2012

\*\* ERA study period 10/5/2012 - 11/19/2012, ERA data report issue date 11/28/2012

***I-131 in Water***

Reference Date	Sample I.D.	Nuclide	Acceptance Range pCi/l	Reference Value pCi/l	Reported Value pCi/l	Proficiency Check Status
10/5/2012	RAD-91**	I-131	20.6 - 29.4	2.48E+01	2.47E+01	Pass

\* ERA study period 4/9/2012 - 5/24/2012, ERA data report issue date 6/4/2012

\*\* ERA study period 10/5/2012 - 11/19/2012, ERA data report issue date 11/28/2012

# TABLE 5.0-D

## 2012 ENVIRONMENTAL DOSIMETER CROSS-CHECK RESULTS

Nuclear Technology Services

1st Quarter 2012						2nd Quarter 2012					
TLD Number	Reported (mR)	Delivered (mR)	Bias (% diff)	Pass/Fail Criteria	Pass/Fail	TLD Number	Reported (mR)	Delivered (mR)	Bias (% diff)	Pass/Fail Criteria	Pass/Fail
102442	78.8	77.4	1.81	<+/-15%	Pass	102414	17.4	17.0	2.29	<+/-15%	Pass
102257	83.0	77.4	7.22	<+/-15%	Pass	102430	17.9	17.0	5.00	<+/-15%	Pass
102337	77.7	77.4	0.40	<+/-15%	Pass	102462	18.0	17.0	5.94	<+/-15%	Pass
102221	78.3	77.4	1.15	<+/-15%	Pass	102490	16.9	17.0	-0.65	<+/-15%	Pass
102483	82.3	77.4	6.37	<+/-15%	Pass	102523	18.4	17.0	8.35	<+/-15%	Pass
Average Bias (B)			3.39			Average Bias (B)			4.19		
Standard Deviation (S)			3.16			Standard Deviation (S)			3.47		
Measure Performance  B +S			6.55	<15%	Pass	Measure Performance  B +S			7.65	<15%	Pass
3rd Quarter 2012						4th Quarter 2012					
TLD Number	Reported (mR)	Delivered (mR)	Bias (% diff)	Pass/Fail Criteria	Pass/Fail	TLD Number	Reported (mR)	Delivered (mR)	Bias (% diff)	Pass/Fail Criteria	Pass/Fail
102508	76.2	74.7	2.02	<+/-15%	Pass	102432	94.0	90.4	3.94	<+/-15%	Pass
102393	75.3	74.7	0.87	<+/-15%	Pass	102452	95.9	90.4	6.07	<+/-15%	Pass
102281	77.2	74.7	3.29	<+/-15%	Pass	102453	94.1	90.4	4.09	<+/-15%	Pass
102373	77.6	74.7	3.84	<+/-15%	Pass	102455	99.6	90.4	10.10	<+/-15%	Pass
102311	78.0	74.7	4.47	<+/-15%	Pass	102473	91.8	90.4	1.56	<+/-15%	Pass
Average Bias (B)			2.90			Average Bias (B)			5.15		
Standard Deviation (S)			1.45			Standard Deviation (S)			3.19		
Measure Performance  B +S			4.35	<15%	Pass	Measure Performance  B +S			8.34	<15%	Pass

### Internal Crosscheck (Duke Energy)

1st Quarter 2012						2nd Quarter 2012					
TLD Number	Reported (mR)	Delivered (mR)	Bias (% diff)	Pass/Fail Criteria	Pass/Fail	TLD Number	Reported (mR)	Delivered (mR)	Bias (% diff)	Pass/Fail Criteria	Pass/Fail
102046	32.6	33.0	-1.27	<+/-15%	Pass	102468	34.2	35.0	-2.26	<+/-15%	Pass
102017	32.1	33.0	-2.82	<+/-15%	Pass	102437	35.4	35.0	1.00	<+/-15%	Pass
102250	32.2	33.0	-2.42	<+/-15%	Pass	102371	34.0	35.0	-2.77	<+/-15%	Pass
102082	32.0	33.0	-3.12	<+/-15%	Pass	102402	34.2	35.0	-2.40	<+/-15%	Pass
102339	32.0	33.0	-3.15	<+/-15%	Pass	102406	35.6	35.0	1.66	<+/-15%	Pass
102332	31.9	33.0	-3.48	<+/-15%	Pass	102012	34.3	35.0	-2.14	<+/-15%	Pass
102436	32.0	33.0	-3.18	<+/-15%	Pass	102496	32.1	35.0	-8.29	<+/-15%	Pass
102255	32.4	33.0	-1.97	<+/-15%	Pass	102391	34.2	35.0	-2.34	<+/-15%	Pass
102238	32.6	33.0	-1.36	<+/-15%	Pass	102407	34.8	35.0	-0.63	<+/-15%	Pass
101256	31.1	33.0	-5.88	<+/-15%	Pass	102336	35.2	35.0	0.51	<+/-15%	Pass
Average Bias (B)			-2.87			Average Bias (B)			-1.77		
Standard Deviation (S)			1.31			Standard Deviation (S)			2.80		
Measure Performance  B +S			4.18	<15%	Pass	Measure Performance  B +S			4.56	<15%	Pass
3rd Quarter 2012						4th Quarter 2012					
TLD Number	Reported (mR)	Delivered (mR)	Bias (% diff)	Pass/Fail Criteria	Pass/Fail	TLD Number	Reported (mR)	Delivered (mR)	Bias (% diff)	Pass/Fail Criteria	Pass/Fail
102149	39.1	40.0	-2.27	<+/-15%	Pass	102258	30.6	30.0	2.03	<+/-15%	Pass
102318	38.9	40.0	-2.78	<+/-15%	Pass	102373	29.2	30.0	-2.70	<+/-15%	Pass
102364	38.6	40.0	-3.55	<+/-15%	Pass	102001	30.0	30.0	0.07	<+/-15%	Pass
102433	39.6	40.0	-1.00	<+/-15%	Pass	102311	29.0	30.0	-3.50	<+/-15%	Pass
102434	39.7	40.0	-0.78	<+/-15%	Pass	102296	28.9	30.0	-3.60	<+/-15%	Pass
102083	38.3	40.0	-4.20	<+/-15%	Pass	102281	29.1	30.0	-2.97	<+/-15%	Pass
102019	38.4	40.0	-4.13	<+/-15%	Pass	102227	30.5	30.0	1.53	<+/-15%	Pass
102280	38.0	40.0	-5.03	<+/-15%	Pass	102393	29.0	30.0	-3.30	<+/-15%	Pass
102154	39.1	40.0	-2.20	<+/-15%	Pass	102163	28.9	30.0	-3.70	<+/-15%	Pass
102286	37.9	40.0	-5.28	<+/-15%	Pass	102248	30.0	30.0	0.00	<+/-15%	Pass
Average Bias (B)			-3.12			Average Bias (B)			-1.61		
Standard Deviation (S)			1.57			Standard Deviation (S)			2.27		
Measure Performance  B +S			4.69	<15%	Pass	Measure Performance  B +S			3.88	<15%	Pass



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## 6.0 REFERENCES

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- 6.1 McGuire Selected License Commitment Manual
- 6.2 McGuire Technical Specifications
- 6.3 McGuire Updated Final Safety Analysis Report
- 6.4 McGuire Offsite Dose Calculation Manual
- 6.5 McGuire Annual Radiological Environmental Operating Report 1979 - 2011
- 6.6 McGuire Annual Radioactive Effluent Release Report 2012
- 6.7 Probability and Statistics in Engineering and Management Science, Hines and Montgomery, 1969, pages 287-293.
- 6.8 Practical Statistics for the Physical Sciences, Havilcek and Crain, 1988, pages 83-93.
- 6.9 Nuclear Regulatory Commission Regulatory Guide 1.109, Calculation of Annual Doses to Man from Routine Releases of Reactor Effluents for the Purposes of Evaluating Compliance with 10CFR50, Appendix I.
- 6.10 EnRad Laboratories Operating Procedures
- 6.11 RETDAS, Radiological Effluent Tracking and Dose Assessment Software, Canberra Version 3.5.1, DPC Revision #4.0
- 6.12 Radiological Effluents Control Audit 12-20 (NOS)(REC)(MNS)
- 6.13 NRC Integrated Inspection Report (50-369/2011004, 50-370/2011004)
- 6.14 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).
- 6.15 Problem Investigation Program Database, V 3.4.3, Duke Energy Company, G-04-00134
- 6.16 Problem Investigation Program Database, V 3.4.3, Duke Energy Company, G-12-01584
- 6.17 Radiological Effluents Control Audit 12-19 (NOS)(REC)(ONS)
- 6.18 Radiological Effluents Control Audit 12-18 (NOS)(REC)(CNS)
- 6.19 Radiological Effluents Control Audit 12-21 (NOS)(REC)(NGO)

**APPENDIX A**

**ENVIRONMENTAL SAMPLING  
&  
ANALYSIS PROCEDURES**

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# APPENDIX A

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## ENVIRONMENTAL SAMPLING AND ANALYSIS PROCEDURES

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

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

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

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

Indicator location 104 (Crops) added as a replacement for indicator location 188 (Crops), which was removed from the program (reference 6.16) since the garden owner discontinued the garden.

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

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

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

Tritium analyses are performed quarterly by using low-level environmental liquid scintillation analysis technique on a Packard 2550 liquid scintillation system or Perkin-Elmer 2900TR liquid scintillation system. Tritium samples are distilled and batch processed with a tritium spike 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**

No analysis procedures were changed during 2012.

### **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)
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)
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)

### **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)

### **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)  
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 188 = 5 mile radius Gardens (2.79 mi NNE)  
*Programmatic sampling terminated 7/2/2012, reference 6.16*  
Location 104 = 5 mile radius Gardens (1.52 mi NNW)  
*Programmatic sampling initiated 9/11/2012, reference 6.16*

### **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)

#### **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)

#### **A.9 DIRECT GAMMA RADIATION (TLD)**

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

- \* An inner ring of 14 TLDs at the site boundary, one in each available meteorological sector. The site boundary locations in the N and NNW sectors are over water; however, two special interest TLD's were placed in these sectors inside the site boundary in March, 1991.
- \* An outer ring of 16 TLDs, one in each meteorological sector in the 6 to 8 kilometer range.
- \* The remaining TLDs were placed in special interest areas such as population centers, residential areas, schools, and control locations.

#### **A.10 ANNUAL LAND USE CENSUS**

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

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

The census was conducted during the growing season on 5/22/2012. Results are shown in Table 3.10. No changes were made to the sampling procedures during 2012 as a result of the 2012 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 2012.

## 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**

**2012**



## Radiological Environmental Monitoring Program Summary

Facility: McGuire Nuclear Station

Docket No. 50-369,370

Location: Mecklenburg County, North Carolina

Report Period: 01-JAN-2012 to 31-DEC-2012

Medium or Pathway Sampled	Type and Total Number of Analyses Performed	Lower Limit of Detection (LLD)	All Indicator Locations Mean (Fraction) Range	Location with Highest Annual Mean Name, Distance, Direction		Control Location Mean (Fraction) Range	No. of Non-Routine Report Meas.
				Location Code	Mean (Fraction) Range		
Air Particulate (pCi/m3)						102 (9.89 mi WNW)	
BETA	364	1.00E-02	2.06E-2 (312/312)	120	2.10E-2 (52/52)	2.08E-2 (52/52)	0
			1.05E-2 - 3.64E-2	(0.46 mi NNE)	1.31E-2 - 3.38E-2	1.38E-2 - 3.39E-2	
CS-134	364	5.00E-02	0.00 (0/312)		0.00 (0/52)	0.00 (0/52)	0
			0.00 - 0.00		0.00 - 0.00	0.00 - 0.00	
CS-137	364	6.00E-02	0.00 (0/312)		0.00 (0/52)	0.00 (0/52)	0
			0.00 - 0.00		0.00 - 0.00	0.00 - 0.00	
I-131	364	7.00E-02	0.00 (0/312)		0.00 (0/52)	0.00 (0/52)	0
			0.00 - 0.00		0.00 - 0.00	0.00 - 0.00	

Mean and range based upon detectable measurements only

Fraction of detectable measurements at specified locations is indicated in parentheses, (Fraction)

Zero range indicates no detectable activity measurements

## Radiological Environmental Monitoring Program Summary

Facility: McGuire Nuclear Station

Docket No. 50-369,370

Location: Mecklenburg County, North Carolina

Report Period: 01-JAN-2012 to 31-DEC-2012

Medium or Pathway Sampled	Type and Total Number of	Lower Limit of Detection	All Indicator Locations	Location with Highest Annual Mean		Control Location	No. of Non-Routine Report Meas.
				Name, Distance, Direction	Mean (Fraction) Range		
Unit of Measurement	Analyses Performed	(LLD)	Mean (Fraction) Range	Location Code	Mean (Fraction) Range	Mean (Fraction) Range	
Air Radioiodine (pCi/m3)						102 (9.89 mi WNW)	
	CS-134 364	5.00E-02	0.00 (0/312) 0.00 - 0.00		0.00 (0/52) 0.00 - 0.00	0.00 (0/52) 0.00 - 0.00	0
	CS-137 364	6.00E-02	0.00 (0/312) 0.00 - 0.00		0.00 (0/52) 0.00 - 0.00	0.00 (0/52) 0.00 - 0.00	0
	I-131 364	7.00E-02	0.00 (0/312) 0.00 - 0.00		0.00 (0/52) 0.00 - 0.00	0.00 (0/52) 0.00 - 0.00	0

Mean and range based upon detectable measurements only

Fraction of detectable measurements at specified locations is indicated in parentheses, (Fraction)

Zero range indicates no detectable activity measurements

## Radiological Environmental Monitoring Program Summary

Facility: McGuire Nuclear Station

Docket No. 50-369,370

Location: Mecklenburg County, North Carolina

Report Period: 01-JAN-2012 to 31-DEC-2012

Medium or Pathway Sampled	Type and Total Number of Analyses Performed	Lower Limit of Detection (LLD)	All Indicator Locations Mean (Fraction) Range	Location with Highest Annual Mean Name, Distance, Direction		Control Location Mean (Fraction) Range	No. of Non-Routine Report Meas.
				Location Code	Mean (Fraction) Range		
Drinking Water (pCi/liter)						136 (12.7 mi NNE)	
BALA-140	65	15	0.00 (0/52) 0.00 - 0.00		0.00 (0/13) 0.00 - 0.00	0.00 (0/13) 0.00 - 0.00	0
BETA	65	4	1.65 (52/52) 0.65 - 2.79	194 (6.73 mi NNW)	1.74 (13/13) 0.93 - 2.48	1.66 (13/13) 0.67 - 2.66	0
CO-58	65	15	0.00 (0/52) 0.00 - 0.00		0.00 (0/13) 0.00 - 0.00	0.00 (0/13) 0.00 - 0.00	0
CO-60	65	15	0.00 (0/52) 0.00 - 0.00		0.00 (0/13) 0.00 - 0.00	0.00 (0/13) 0.00 - 0.00	0
CS-134	65	15	0.00 (0/52) 0.00 - 0.00		0.00 (0/13) 0.00 - 0.00	0.00 (0/13) 0.00 - 0.00	0
CS-137	65	18	0.00 (0/52) 0.00 - 0.00		0.00 (0/13) 0.00 - 0.00	0.00 (0/13) 0.00 - 0.00	0
FE-59	65	30	0.00 (0/52) 0.00 - 0.00		0.00 (0/13) 0.00 - 0.00	0.00 (0/13) 0.00 - 0.00	0
H-3	20	2000	576 (14/16) 199 - 843	101 (3.31 mi E)	795 (4/4) 749 - 843	0.00(0/4) 0.00 - 0.00	0
I-131	65	15	0.00 (0/52) 0.00 - 0.00		0.00 (0/13) 0.00 - 0.00	0.00 (0/13) 0.00 - 0.00	0
MN-54	65	15	0.00 (0/52) 0.00 - 0.00		0.00 (0/13) 0.00 - 0.00	0.00 (0/13) 0.00 - 0.00	0
NB-95	65	15	0.00 (0/52) 0.00 - 0.00		0.00 (0/13) 0.00 - 0.00	0.00 (0/13) 0.00 - 0.00	0
ZN-65	65	30	0.00 (0/52) 0.00 - 0.00		0.00 (0/13) 0.00 - 0.00	0.00 (0/13) 0.00 - 0.00	0
ZR-95	65	15	0.00 (0/52) 0.00 - 0.00		0.00 (0/13) 0.00 - 0.00	0.00 (0/13) 0.00 - 0.00	0

Mean and range based upon detectable measurements only

Fraction of detectable measurements at specified locations is indicated in parentheses, (Fraction)

Zero range indicates no detectable activity measurements

## Radiological Environmental Monitoring Program Summary

Facility: McGuire Nuclear Station

Docket No. 50-369,370

Location: Mecklenburg County, North Carolina

Report Period: 01-JAN-2012 to 31-DEC-2012

Medium or Pathway Sampled	Type and Total Number of	Lower Limit of Detection	All Indicator Locations	Location with Highest Annual Mean Name, Distance, Direction		Control Location	No. of Non-Routine Report Meas.
				Location Code	Mean (Fraction) Range		
Unit of Measurement	Analyses Performed	(LLD)	Mean (Fraction) Range			Mean (Fraction) Range	
Surface Water (pCi/liter)						135 (11.9 mi N)	
BALA-140	39	15	0.00 (0/26) 0.00 - 0.00		0.00 (0/13) 0.00 - 0.00	0.00 (0/13) 0.00 - 0.00	0
CO-58	39	15	0.00 (0/26) 0.00 - 0.00		0.00 (0/13) 0.00 - 0.00	0.00 (0/13) 0.00 - 0.00	0
CO-60	39	15	0.00 (0/26) 0.00 - 0.00		0.00 (0/13) 0.00 - 0.00	0.00 (0/13) 0.00 - 0.00	0
CS-134	39	15	0.00 (0/26) 0.00 - 0.00		0.00 (0/13) 0.00 - 0.00	0.00 (0/13) 0.00 - 0.00	0
CS-137	39	18	0.00 (0/26) 0.00 - 0.00		0.00 (0/13) 0.00 - 0.00	0.00 (0/13) 0.00 - 0.00	0
FE-59	39	30	0.00 (0/26) 0.00 - 0.00		0.00 (0/13) 0.00 - 0.00	0.00 (0/13) 0.00 - 0.00	0
H-3	12	2000	707 (8/8) 315 - 1070	128 (0.45 mi NE)	906 (4/4) 749 - 1070	0.00 (0/4) 0.00 - 0.00	0
I-131	39	15	0.00 (0/26) 0.00 - 0.00		0.00 (0/13) 0.00 - 0.00	0.00 (0/13) 0.00 - 0.00	0
MN-54	39	15	0.00 (0/26) 0.00 - 0.00		0.00 (0/13) 0.00 - 0.00	0.00 (0/13) 0.00 - 0.00	0
NB-95	39	15	0.00 (0/26) 0.00 - 0.00		0.00 (0/13) 0.00 - 0.00	0.00 (0/13) 0.00 - 0.00	0
ZN-65	39	30	0.00 (0/26) 0.00 - 0.00		0.00 (0/13) 0.00 - 0.00	0.00 (0/13) 0.00 - 0.00	0
ZR-95	39	15	0.00 (0/26) 0.00 - 0.00		0.00 (0/13) 0.00 - 0.00	0.00 (0/13) 0.00 - 0.00	0

Mean and range based upon detectable measurements only

Fraction of detectable measurements at specified locations is indicated in parentheses, (Fraction)

Zero range indicates no detectable activity measurements

## Radiological Environmental Monitoring Program Summary

Facility: McGuire Nuclear Station

Docket No. 50-369,370

Location: Mecklenburg County, North Carolina

Report Period: 01-JAN-2012 to 31-DEC-2012

Medium or Pathway Sampled  Unit of Measurement	Type and Total Number of  Analyses Performed	Lower Limit of Detection  (LLD)	All Indicator Locations  Mean (Fraction) Range	Location with Highest Annual Mean Name, Distance, Direction		Control Location  Mean (Fraction) Range	No. of Non-Routine Report Meas.
				Location Code	Mean (Fraction) Range		
Milk (pCi/liter)			NO INDICATOR LOCATION			141 (14.8 mi WNW)	
	BALA-140	26	15	0.00 (0/26) 0.00 - 0.00		0.00 (0/26) 0.00 - 0.00	0
	CS-134	26	15	0.00 (0/26) 0.00 - 0.00		0.00 (0/26) 0.00 - 0.00	0
	CS-137	26	18	0.00 (0/26) 0.00 - 0.00		0.00 (0/26) 0.00 - 0.00	0
	I-131	26	15	0.00 (0/26) 0.00 - 0.00		0.00 (0/26) 0.00 - 0.00	0
	LLI-131	26	1	0.00 (0/26) 0.00 - 0.00		0.00 (0/26) 0.00 - 0.00	0

Mean and range based upon detectable measurements only

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Zero range indicates no detectable activity measurements

## Radiological Environmental Monitoring Program Summary

Facility: McGuire Nuclear Station

Docket No. 50-369,370

Location: Mecklenburg County, North Carolina

Report Period: 01-JAN-2012 to 31-DEC-2012

Medium or Pathway Sampled	Type and Total Number of	Lower Limit of Detection (LLD)	All Indicator Locations Mean (Fraction) Range	Location with Highest Annual Mean Name, Distance, Direction		Control Location Mean (Fraction) Range	No. of Non-Routine Report Meas.
				Location Code	Mean (Fraction) Range		
Broadleaf Vegetation (pCi/kg-wet)				102 (9.89 mi WNW)			
	CS-134	48	60	0.00 (0/36)	0.00 (0/12)	0.00 (0/12)	0
				0.00 - 0.00	0.00 - 0.00	0.00 - 0.00	
	CS-137	48	80	0.00 (0/36)	0.00 (0/12)	0.00 (0/12)	0
				0.00 - 0.00	0.00 - 0.00	0.00 - 0.00	
	I-131	48	60	0.00 (0/36)	0.00 (0/12)	0.00 (0/12)	0
				0.00 - 0.00	0.00 - 0.00	0.00 - 0.00	

Mean and range based upon detectable measurements only

Fraction of detectable measurements at specified locations is indicated in parentheses, (Fraction)

Zero range indicates no detectable activity measurements

## Radiological Environmental Monitoring Program Summary

Facility: McGuire Nuclear Station

Docket No. 50-369,370

Location: Mecklenburg County, North Carolina

Report Period: 01-JAN-2012 to 31-DEC-2012

Medium or Pathway Sampled	Type and Total Number of	Lower Limit of Detection (LLD)	All Indicator Locations Mean (Fraction) Range	Location with Highest Annual Mean Name, Distance, Direction		Control Location Mean (Fraction) Range	No. of Non-Routine Report Meas.
				Location Code	Mean (Fraction) Range		
Food Products (pCi/kg-wet)				NO CONTROL LOCATION			
	CS-134	11	60	0.00 (0/11)	0.00 (0/11)	0.00 (0/0)	0
				0.00 - 0.00	0.00 - 0.00	0.00 - 0.00	
	CS-137	11	80	0.00 (0/11)	0.00 (0/11)	0.00 (0/0)	0
				0.00 - 0.00	0.00 - 0.00	0.00 - 0.00	
	I-131	11	60	0.00 (0/11)	0.00 (0/11)	0.00 (0/0)	0
				0.00 - 0.00	0.00 - 0.00	0.00 - 0.00	

Mean and range based upon detectable measurements only

Fraction of detectable measurements at specified locations is indicated in parentheses, (Fraction)

Zero range indicates no detectable activity measurements

## Radiological Environmental Monitoring Program Summary

Facility: McGuire Nuclear Station

Docket No. 50-369,370

Location: Mecklenburg County, North Carolina

Report Period: 01-JAN-2012 to 31-DEC-2012

Medium or Pathway Sampled	Type and Total Number of Analyses Performed	Lower Limit of Detection (LLD)	All Indicator Locations Mean (Fraction) Range	Location with Highest Annual Mean Name, Distance, Direction		Control Location Mean (Fraction) Range	No. of Non-Routine Report Meas.
				Location Code	Mean (Fraction) Range		
Fish (pCi/kg-wet)						137 (12.0 mi N)	
CO-58	12	130	0.00 (0/6) 0.00 - 0.00		0.00 (0/6) 0.00 - 0.00	0.00 (0/6) 0.00 - 0.00	0
CO-60	12	130	0.00 (0/6) 0.00 - 0.00		0.00 (0/6) 0.00 - 0.00	0.00 (0/6) 0.00 - 0.00	0
CS-134	12	130	0.00 (0/6) 0.00 - 0.00		0.00 (0/6) 0.00 - 0.00	0.00 (0/6) 0.00 - 0.00	0
CS-137	12	150	33.4 (1/6) 33.4 - 33.4	129 (0.51 mi ENE)	33.4 (1/6) 33.4 - 33.4	44.5 (1/6) 44.5 - 44.5	0
FE-59	12	260	0.00 (0/6) 0.00 - 0.00		0.00 (0/6) 0.00 - 0.00	0.00 (0/6) 0.00 - 0.00	0
MN-54	12	130	0.00 (0/6) 0.00 - 0.00		0.00 (0/6) 0.00 - 0.00	0.00 (0/6) 0.00 - 0.00	0
ZN-65	12	260	0.00 (0/6) 0.00 - 0.00		0.00 (0/6) 0.00 - 0.00	0.00 (0/6) 0.00 - 0.00	0

Mean and range based upon detectable measurements only

Fraction of detectable measurements at specified locations is indicated in parentheses, (Fraction)

Zero range indicates no detectable activity measurements



## Radiological Environmental Monitoring Program Summary

Facility: McGuire Nuclear Station

Docket No. 50-369,370

Location: Mecklenburg County, North Carolina

Report Period: 01-JAN-2012 to 31-DEC-2012

Medium or Pathway Sampled	Type and Total Number of Analyses Performed	Lower Limit of Detection (LLD)	All Indicator Locations		Location with Highest Annual Mean Name, Distance, Direction		Control Location Mean (Fraction) Range	No. of Non-Routine Report Meas.
			Mean (Fraction) Range		Location Code	Mean (Fraction) Range		
Shoreline Sediment (pCi/kg-dry)							137 (12.0 mi N)	
	MN-54	6	0	0.00 (0/4) 0.00 - 0.00		0.00 (0/2) 0.00 - 0.00	0.00 (0/2) 0.00 - 0.00	
	CO-58	6	0	0.00 (0/4) 0.00 - 0.00		0.00 (0/2) 0.00 - 0.00	0.00 (0/2) 0.00 - 0.00	0
	CO-60	6	0	0.00 (0/4) 0.00 - 0.00		0.00 (0/2) 0.00 - 0.00	0.00 (0/2) 0.00 - 0.00	0
	CS-134	6	150	0.00 (0/4) 0.00 - 0.00		0.00 (0/2) 0.00 - 0.00	0.00 (0/2) 0.00 - 0.00	0
	CS-137	6	180	71.3 (2/4) 50.0 - 92.6		130 (0.52 mi SW) 50.0 - 92.6	71.3 (2/2) 0.00 (0/2) 0.00 - 0.00	0

Mean and range based upon detectable measurements only

Fraction of detectable measurements at specified locations is indicated in parentheses, (Fraction)

Zero range indicates no detectable activity measurements

If LLD is equal to 0.00, then the LLD is not required by Selected Licensee Commitments

## Radiological Environmental Monitoring Program Summary

Facility: McGuire Nuclear Station

Docket No. 50-369,370

Location: Mecklenburg County, North Carolina

Report Period: 01-JAN-2012 to 31-DEC-2012

Medium or Pathway Sampled	Type and Total Number of	Lower Limit of Detection	All Indicator Locations	Location with Highest Annual Mean		Control Location	No. of Non-Routine Report Meas.
				Name, Distance, Direction	Mean (Fraction)		
Unit of Measurement	Analyses Performed	(LLD)	Mean (Fraction) Range	Location Code	Mean (Fraction) Range	Mean (Fraction) Range	
Direct Radiation TLD (mR/standard quarter)						175 (15.5 mi WNW)	
	163	0.00E+00	16.8 (159/159)	180	26.5 (4/4)	23.0 (4/4)	0
			9.00 - 29.0	(12.7 mi NNE)	24.0 - 29.0	20.0 - 25.0	

Mean and range based upon detectable measurements only

Fraction of detectable measurements at specified locations is indicated in parentheses, (Fraction)

Zero range indicates no detectable activity measurements

**APPENDIX C**

**SAMPLING DEVIATIONS  
&  
UNAVAILABLE ANALYSES**

# APPENDIX C

## MCGUIRE NUCLEAR STATION SAMPLING DEVIATIONS & UNAVAILABLE ANALYSES

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

### C.1 SAMPLING DEVIATIONS

#### Air Particulate and Air Radioiodines

Location	Scheduled Collection Dates	Actual Collection Dates	Code	Description & Action to Prevent Recurrence	Corrective Action Identity
125	6/11 – 6/18/2012	6/11 – 6/18/2012	PI	Power to sampling equipment interrupted, possibly attributable to construction. No work request/repair was necessary.	G-12-01086
133	5/14 – 5/21/2012	5/14 – 5/21/2012	PI	Power to sampling equipment interrupted, possibly attributable to construction. No work request/repair was necessary.	G-12-00896

#### Drinking Water

Location	Scheduled Collection Dates	Actual Collection Dates	Code	Description & Action to Prevent Recurrence	Corrective Action Identity
136	8/20 – 9/17/2012 9/17 – 10/15/2012	8/20 – 9/17/2012 9/17 – 10/15/2012	OT	Water plant configuration changes interrupted sampling equipment water supply. Sampling equipment required relocation within the plant.	G-12-01587

#### Surface Water

Location	Scheduled Collection Dates	Actual Collection Dates	Code	Description & Action to Prevent Recurrence	Corrective Action Identity
128	10/15 – 11/12/2012	10/15 – 11/12/2012	PS	Reservoir pump found inoperative, work request 105702 written.	G-12-01876
131	5/29 – 6/25/2012 6/25 – 7/23/2012	5/29 – 6/25/2012 6/28 – 7/23/2012	OT	Water supply interrupted due to Cowans Ford Dam unit dewatering. Water supply source reconfiguration was required; work request 101613 written.	G-12-01129

## Surface Water, continued

Location	Scheduled Collection Dates	Actual Collection Dates	Code	Description & Action to Prevent Recurrence	Corrective Action Identity
135	9/17 – 10/15/2012	9/17 – 10/15/2012	OT	Sampling equipment malfunctioned during composite period. Work request 104200 written to repair the pump and replace the intake line.	G-13-00522

## C.2 UNAVAILABLE ANALYSES

### TLD

Location	Scheduled Collection Dates	Code	Description & Action to Prevent Recurrence	Corrective Action Identity
161	6/14 – 9/13/2012	VN	TLD missing. 4 <sup>th</sup> quarter TLD placed.	G-12-01551

**APPENDIX D**

**ANALYTICAL DEVIATIONS**

No Analytical deviations were incurred for the  
2012 Radiological Environmental Monitoring Program

**APPENDIX E**

**RADIOLOGICAL  
ENVIRONMENTAL MONITORING  
PROGRAM RESULTS**

**2012**

This appendix includes sample analysis report summaries and supportive data generated from each sample medium for 2012.

# MCGUIRE Radiological Environmental Monitoring Analysis Report - 2012 (Appendix E)

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

Sample Point 102 [ CONTROL - WNW @ 9.89 miles ]

Sample ID:	Sample Dates:	Nuclide	Activity	1 Sigma Error	LLD
227245	1/3/2012 - 1/9/2012	Beta	2.45E-02	1.66E-03	3.33E-03
		I-131	<7.21E-03	0.00E+00	7.21E-03
		Cs-134	<7.53E-03	0.00E+00	7.53E-03
		Cs-137	<9.54E-03	0.00E+00	9.54E-03
		Be-7	2.10E-01	3.64E-02	6.03E-02
		K-40	3.44E-01	6.81E-02	1.24E-01
227337	1/9/2012 - 1/16/2012	Beta	1.70E-02	1.35E-03	2.94E-03
		I-131	<7.17E-03	0.00E+00	7.17E-03
		Cs-134	<7.53E-03	0.00E+00	7.53E-03
		Cs-137	<1.02E-02	0.00E+00	1.02E-02
		Be-7	7.52E-02	3.13E-02	5.19E-02
		K-40	2.09E-01	5.95E-02	1.29E-01
227548	1/16/2012 - 1/23/2012	Beta	1.96E-02	1.41E-03	2.88E-03
		I-131	<6.29E-03	0.00E+00	6.29E-03
		Cs-134	<5.50E-03	0.00E+00	5.50E-03
		Cs-137	<9.75E-03	0.00E+00	9.75E-03
		Be-7	1.13E-01	3.07E-02	4.92E-02
		K-40	3.38E-01	6.27E-02	1.18E-01
227870	1/23/2012 - 1/30/2012	Beta	1.59E-02	1.29E-03	2.80E-03
		I-131	<2.07E-02	0.00E+00	2.07E-02
		Cs-134	<1.90E-02	0.00E+00	1.90E-02
		Cs-137	<1.49E-02	0.00E+00	1.49E-02
		Be-7	1.38E-01	7.56E-02	1.57E-01
		K-40	<4.60E-01	0.00E+00	4.60E-01
228138	1/30/2012 - 2/6/2012	Beta	1.78E-02	1.34E-03	2.81E-03
		I-131	<1.53E-02	0.00E+00	1.53E-02
		Cs-134	<2.37E-02	0.00E+00	2.37E-02
		Cs-137	<1.94E-02	0.00E+00	1.94E-02
		Be-7	1.93E-01	4.42E-02	1.46E-01
		K-40	<4.79E-01	0.00E+00	4.79E-01
229448	2/6/2012 - 2/13/2012	Beta	1.80E-02	1.41E-03	3.12E-03
		I-131	<7.66E-03	0.00E+00	7.66E-03
		Cs-134	<7.92E-03	0.00E+00	7.92E-03
		Cs-137	<7.58E-03	0.00E+00	7.58E-03
		Be-7	1.13E-01	3.31E-02	6.94E-02
		K-40	2.52E-01	5.03E-02	7.23E-02
230074	2/13/2012 - 2/20/2012	Beta	1.79E-02	1.45E-03	3.38E-03
		I-131	<5.81E-03	0.00E+00	5.81E-03
		Cs-134	<9.14E-03	0.00E+00	9.14E-03
		Cs-137	<9.89E-03	0.00E+00	9.89E-03
		Be-7	1.46E-01	4.60E-02	6.73E-02
		K-40	1.52E-01	6.32E-02	1.44E-01
230749	2/20/2012 - 2/27/2012	Beta	1.64E-02	1.36E-03	3.07E-03
		I-131	<2.05E-02	0.00E+00	2.05E-02
		Cs-134	<1.95E-02	0.00E+00	1.95E-02
		Cs-137	<2.39E-02	0.00E+00	2.39E-02
		Be-7	1.46E-01	6.32E-02	1.96E-01
		K-40	<4.18E-01	0.00E+00	4.18E-01
230958	2/27/2012 - 3/5/2012	Beta	1.38E-02	1.32E-03	3.19E-03
		I-131	<5.92E-03	0.00E+00	5.92E-03
		Cs-134	<6.83E-03	0.00E+00	6.83E-03
		Cs-137	<8.01E-03	0.00E+00	8.01E-03
		Be-7	1.65E-01	2.67E-02	4.19E-02





**MCGUIRE Radiological Environmental Monitoring Analysis Report - 2012 (Appendix E)**

Media Type: AIR PARTICULATE Concentration (Activity): pCi/m<sup>3</sup>

Sample Point 102 [ CONTROL - WNW @ 9.89 miles ]

Sample ID:	Sample Dates:	Nuclide	Activity	1 Sigma Error	LLD
230958	2/27/2012 - 3/5/2012	K-40	2.09E-01	5.14E-02	6.96E-02
231668	3/5/2012 - 3/12/2012	Beta	1.60E-02	1.38E-03	3.25E-03
		I-131	<1.19E-02	0.00E+00	1.19E-02
		Cs-134	<1.18E-02	0.00E+00	1.18E-02
		Cs-137	<1.07E-02	0.00E+00	1.07E-02
		Be-7	1.89E-01	4.00E-02	1.10E-01
		K-40	<1.71E-01	0.00E+00	1.71E-01
232482	3/12/2012 - 3/19/2012	Beta	1.74E-02	1.36E-03	2.99E-03
		I-131	<2.06E-02	0.00E+00	2.06E-02
		Cs-134	<2.35E-02	0.00E+00	2.35E-02
		Cs-137	<2.47E-02	0.00E+00	2.47E-02
		Be-7	<2.31E-01	0.00E+00	2.31E-01
		K-40	<4.20E-01	0.00E+00	4.20E-01
233322	3/19/2012 - 3/26/2012	Beta	1.39E-02	1.29E-03	3.05E-03
		I-131	<1.74E-02	0.00E+00	1.74E-02
		Cs-134	<2.00E-02	0.00E+00	2.00E-02
		Cs-137	<1.94E-02	0.00E+00	1.94E-02
		Be-7	1.72E-01	5.44E-02	1.28E-01
		K-40	<4.35E-01	0.00E+00	4.35E-01
233563	3/26/2012 - 4/2/2012	Beta	1.94E-02	1.46E-03	3.18E-03
		I-131	<1.73E-02	0.00E+00	1.73E-02
		Cs-134	<2.58E-02	0.00E+00	2.58E-02
		Cs-137	<2.08E-02	0.00E+00	2.08E-02
		Be-7	1.68E-01	5.03E-02	1.36E-01
		K-40	<3.95E-01	0.00E+00	3.95E-01
234526	4/2/2012 - 4/9/2012	Beta	1.67E-02	1.29E-03	2.65E-03
		I-131	<1.78E-02	0.00E+00	1.78E-02
		Cs-134	<2.53E-02	0.00E+00	2.53E-02
		Cs-137	<2.22E-02	0.00E+00	2.22E-02
		Be-7	1.37E-01	6.23E-02	1.30E-01
		K-40	<4.19E-01	0.00E+00	4.19E-01
234912	4/9/2012 - 4/16/2012	Beta	1.72E-02	1.44E-03	3.39E-03
		I-131	<7.52E-03	0.00E+00	7.52E-03
		Cs-134	<6.29E-03	0.00E+00	6.29E-03
		Cs-137	<7.99E-03	0.00E+00	7.99E-03
		Be-7	9.86E-02	3.86E-02	6.68E-02
		K-40	3.23E-01	5.45E-02	6.64E-02
235231	4/16/2012 - 4/23/2012	Beta	1.53E-02	1.35E-03	3.18E-03
		I-131	<1.89E-02	0.00E+00	1.89E-02
		Cs-134	<1.80E-02	0.00E+00	1.80E-02
		Cs-137	<1.41E-02	0.00E+00	1.41E-02
		Be-7	8.28E-02	3.72E-02	1.12E-01
		K-40	<3.88E-01	0.00E+00	3.88E-01
235416	4/23/2012 - 4/30/2012	Beta	2.27E-02	1.50E-03	3.00E-03
		I-131	<1.46E-02	0.00E+00	1.46E-02
		Cs-134	<1.46E-02	0.00E+00	1.46E-02
		Cs-137	<2.16E-02	0.00E+00	2.16E-02
		Be-7	2.60E-01	6.46E-02	1.45E-01
		K-40	<3.92E-01	0.00E+00	3.92E-01
235754	4/30/2012 - 5/7/2012	Beta	1.62E-02	1.39E-03	3.24E-03
		I-131	<9.34E-03	0.00E+00	9.34E-03
		Cs-134	<1.06E-02	0.00E+00	1.06E-02



# MCGUIRE Radiological Environmental Monitoring Analysis Report - 2012 (Appendix E)

Media Type: AIR PARTICULATE Concentration (Activity): pCi/m<sup>3</sup>

Sample Point 102 [ CONTROL - WNW @ 9.89 miles ]

Sample ID:	Sample Dates:	Nuclide	Activity	1 Sigma Error	LLD
235754	4/30/2012 - 5/7/2012	Cs-137	<1.06E-02	0.00E+00	1.06E-02
		Be-7	1.66E-01	3.34E-02	7.95E-02
		K-40	1.43E-01	4.77E-02	4.30E-02
		Beta			
236000	5/7/2012 - 5/14/2012	Beta	1.67E-02	1.35E-03	3.03E-03
		I-131	<6.37E-03	0.00E+00	6.37E-03
		Cs-134	<6.87E-03	0.00E+00	6.87E-03
		Cs-137	<7.49E-03	0.00E+00	7.49E-03
		Be-7	1.09E-01	2.46E-02	5.51E-02
		K-40	<1.88E-01	0.00E+00	1.88E-01
236210	5/14/2012 - 5/21/2012	Beta	1.57E-02	1.33E-03	2.99E-03
		I-131	<9.23E-03	0.00E+00	9.23E-03
		Cs-134	<1.31E-02	0.00E+00	1.31E-02
		Cs-137	<1.30E-02	0.00E+00	1.30E-02
		Be-7	1.98E-01	4.15E-02	6.71E-02
		K-40	<2.43E-01	0.00E+00	2.43E-01
236523	5/21/2012 - 5/29/2012	Beta	2.05E-02	1.35E-03	2.80E-03
		I-131	<7.22E-03	0.00E+00	7.22E-03
		Cs-134	<5.59E-03	0.00E+00	5.59E-03
		Cs-137	<9.34E-03	0.00E+00	9.34E-03
		Be-7	1.71E-01	3.29E-02	6.35E-02
		K-40	<1.30E-01	0.00E+00	1.30E-01
236822	5/29/2012 - 6/4/2012	Beta	1.72E-02	1.52E-03	3.44E-03
		I-131	<2.16E-02	0.00E+00	2.16E-02
		Cs-134	<2.44E-02	0.00E+00	2.44E-02
		Cs-137	<3.28E-02	0.00E+00	3.28E-02
		Be-7	2.25E-01	7.55E-02	2.40E-01
		K-40	<5.78E-01	0.00E+00	5.78E-01
237148	6/4/2012 - 6/11/2012	Beta	1.40E-02	1.30E-03	3.07E-03
		I-131	<1.80E-02	0.00E+00	1.80E-02
		Cs-134	<1.82E-02	0.00E+00	1.82E-02
		Cs-137	<2.58E-02	0.00E+00	2.58E-02
		Be-7	1.37E-01	4.65E-02	1.76E-01
		K-40	<4.20E-01	0.00E+00	4.20E-01
237323	6/11/2012 - 6/18/2012	Beta	1.53E-02	1.32E-03	3.03E-03
		I-131	<2.28E-02	0.00E+00	2.28E-02
		Cs-134	<1.99E-02	0.00E+00	1.99E-02
		Cs-137	<2.66E-02	0.00E+00	2.66E-02
		Be-7	2.35E-01	4.90E-02	1.47E-01
		K-40	<4.94E-01	0.00E+00	4.94E-01
237999	6/18/2012 - 6/25/2012	Beta	2.38E-02	1.54E-03	3.11E-03
		I-131	<6.15E-03	0.00E+00	6.15E-03
		Cs-134	<1.09E-02	0.00E+00	1.09E-02
		Cs-137	<1.24E-02	0.00E+00	1.24E-02
		Be-7	1.59E-01	4.08E-02	7.00E-02
		K-40	<2.24E-01	0.00E+00	2.24E-01
238751	6/25/2012 - 7/2/2012	Beta	2.64E-02	1.59E-03	3.12E-03
		I-131	<2.27E-02	0.00E+00	2.27E-02
		Cs-134	<1.85E-02	0.00E+00	1.85E-02
		Cs-137	<2.16E-02	0.00E+00	2.16E-02
		Be-7	2.62E-01	6.92E-02	1.22E-01
		K-40	<4.48E-01	0.00E+00	4.48E-01
239151	7/2/2012 - 7/9/2012	Beta	2.80E-02	1.63E-03	3.13E-03



**MCGUIRE Radiological Environmental Monitoring Analysis Report - 2012 (Appendix E)**

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

Sample Point 102 [ CONTROL - WNW @ 9.89 miles ]

Sample ID:	Sample Dates:	Nuclide	Activity	1 Sigma Error	LLD
239151	7/2/2012 - 7/9/2012	I-131	<2.00E-02	0.00E+00	2.00E-02
		Cs-134	<2.24E-02	0.00E+00	2.24E-02
		Cs-137	<2.42E-02	0.00E+00	2.42E-02
		Be-7	2.77E-01	8.09E-02	1.76E-01
		K-40	<5.25E-01	0.00E+00	5.25E-01
239904	7/9/2012 - 7/16/2012	Beta	1.47E-02	1.33E-03	3.12E-03
		I-131	<7.40E-03	0.00E+00	7.40E-03
		Cs-134	<8.73E-03	0.00E+00	8.73E-03
		Cs-137	<7.94E-03	0.00E+00	7.94E-03
		Be-7	<9.52E-02	0.00E+00	9.52E-02
		K-40	2.69E-01	6.46E-02	1.17E-01
240024	7/16/2012 - 7/23/2012	Beta	1.84E-02	1.39E-03	3.00E-03
		I-131	<6.58E-03	0.00E+00	6.58E-03
		Cs-134	<6.58E-03	0.00E+00	6.58E-03
		Cs-137	<9.01E-03	0.00E+00	9.01E-03
		Be-7	1.26E-01	2.43E-02	4.83E-02
		K-40	3.53E-01	6.41E-02	6.65E-02
240358	7/23/2012 - 7/30/2012	Beta	1.60E-02	1.34E-03	3.03E-03
		I-131	<7.52E-03	0.00E+00	7.52E-03
		Cs-134	<6.32E-03	0.00E+00	6.32E-03
		Cs-137	<9.88E-03	0.00E+00	9.88E-03
		Be-7	1.80E-01	3.16E-02	5.97E-02
		K-40	3.38E-01	5.56E-02	9.58E-02
240981	7/30/2012 - 8/6/2012	Beta	2.01E-02	1.46E-03	3.14E-03
		I-131	<7.17E-03	0.00E+00	7.17E-03
		Cs-134	<7.17E-03	0.00E+00	7.17E-03
		Cs-137	<9.83E-03	0.00E+00	9.83E-03
		Be-7	1.91E-01	3.45E-02	6.10E-02
		K-40	<1.91E-01	0.00E+00	1.91E-01
241252	8/6/2012 - 8/13/2012	Beta	1.46E-02	1.29E-03	2.96E-03
		I-131	<1.68E-02	0.00E+00	1.68E-02
		Cs-134	<2.02E-02	0.00E+00	2.02E-02
		Cs-137	<1.62E-02	0.00E+00	1.62E-02
		Be-7	<2.58E-01	0.00E+00	2.58E-01
		K-40	<4.14E-01	0.00E+00	4.14E-01
241559	8/13/2012 - 8/20/2012	Beta	2.63E-02	1.57E-03	3.04E-03
		I-131	<1.39E-02	0.00E+00	1.39E-02
		Cs-134	<2.04E-02	0.00E+00	2.04E-02
		Cs-137	<2.29E-02	0.00E+00	2.29E-02
		Be-7	<2.11E-01	0.00E+00	2.11E-01
		K-40	<4.47E-01	0.00E+00	4.47E-01
242148	8/20/2012 - 8/27/2012	Beta	2.77E-02	1.65E-03	3.36E-03
		I-131	<2.25E-02	0.00E+00	2.25E-02
		Cs-134	<2.48E-02	0.00E+00	2.48E-02
		Cs-137	<2.86E-02	0.00E+00	2.86E-02
		Be-7	<2.51E-01	0.00E+00	2.51E-01
		K-40	<3.85E-01	0.00E+00	3.85E-01
242478	8/27/2012 - 9/4/2012	Beta	1.53E-02	1.22E-03	2.71E-03
		I-131	<8.88E-03	0.00E+00	8.88E-03
		Cs-134	<6.73E-03	0.00E+00	6.73E-03
		Cs-137	<9.30E-03	0.00E+00	9.30E-03
		Be-7	9.12E-02	3.20E-02	7.26E-02
		K-40	<2.31E-01	0.00E+00	2.31E-01



# MCGUIRE Radiological Environmental Monitoring Analysis Report - 2012 (Appendix E)

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

Sample Point 102 [ CONTROL - WNW @ 9.89 miles ]

Sample ID:	Sample Dates:	Nuclide	Activity	1 Sigma Error	LLD
243004	9/4/2012 - 9/10/2012	Beta	1.57E-02	1.55E-03	3.86E-03
		I-131	<2.30E-02	0.00E+00	2.30E-02
		Cs-134	<2.51E-02	0.00E+00	2.51E-02
		Cs-137	<2.50E-02	0.00E+00	2.50E-02
		Be-7	<2.72E-01	0.00E+00	2.72E-01
		K-40	<6.25E-01	0.00E+00	6.25E-01
243762	9/10/2012 - 9/17/2012	Beta	2.51E-02	1.58E-03	3.21E-03
		I-131	<1.16E-02	0.00E+00	1.16E-02
		Cs-134	<1.36E-02	0.00E+00	1.36E-02
		Cs-137	<2.16E-02	0.00E+00	2.16E-02
		Be-7	<1.50E-01	0.00E+00	1.50E-01
		K-40	2.95E-01	9.32E-02	2.55E-01
244167	9/17/2012 - 9/24/2012	Beta	1.83E-02	1.44E-03	3.26E-03
		I-131	<2.09E-02	0.00E+00	2.09E-02
		Cs-134	<2.50E-02	0.00E+00	2.50E-02
		Cs-137	<1.94E-02	0.00E+00	1.94E-02
		Be-7	<2.45E-01	0.00E+00	2.45E-01
		K-40	3.53E-01	1.02E-01	2.22E-01
245052	9/24/2012 - 10/1/2012	Beta	3.12E-02	1.68E-03	3.01E-03
		I-131	<1.60E-02	0.00E+00	1.60E-02
		Cs-134	<2.67E-02	0.00E+00	2.67E-02
		Cs-137	<1.98E-02	0.00E+00	1.98E-02
		Be-7	2.89E-01	6.66E-02	1.32E-01
		K-40	<4.42E-01	0.00E+00	4.42E-01
245858	10/1/2012 - 10/8/2012	Beta	2.82E-02	1.68E-03	3.46E-03
		I-131	<5.29E-03	0.00E+00	5.29E-03
		Cs-134	<7.86E-03	0.00E+00	7.86E-03
		Cs-137	<7.72E-03	0.00E+00	7.72E-03
		Be-7	1.65E-01	3.12E-02	1.35E-02
		K-40	<2.22E-01	0.00E+00	2.22E-01
246713	10/8/2012 - 10/15/2012	Beta	2.30E-02	1.52E-03	3.15E-03
		I-131	<5.90E-03	0.00E+00	5.90E-03
		Cs-134	<9.10E-03	0.00E+00	9.10E-03
		Cs-137	<9.41E-03	0.00E+00	9.41E-03
		Be-7	1.57E-01	3.93E-02	7.05E-02
		K-40	<1.86E-01	0.00E+00	1.86E-01
247121	10/15/2012 - 10/22/2012	Beta	2.61E-02	1.56E-03	3.00E-03
		I-131	<2.28E-02	0.00E+00	2.28E-02
		Cs-134	<2.37E-02	0.00E+00	2.37E-02
		Cs-137	<2.32E-02	0.00E+00	2.32E-02
		Be-7	<1.89E-01	0.00E+00	1.89E-01
		K-40	<6.60E-01	0.00E+00	6.60E-01
247437	10/22/2012 - 10/29/2012	Beta	3.08E-02	1.70E-03	3.24E-03
		I-131	<1.66E-02	0.00E+00	1.66E-02
		Cs-134	<1.59E-02	0.00E+00	1.59E-02
		Cs-137	<2.10E-02	0.00E+00	2.10E-02
		Be-7	<2.20E-01	0.00E+00	2.20E-01
		K-40	<3.18E-01	0.00E+00	3.18E-01
247778	10/29/2012 - 11/5/2012	Beta	1.59E-02	1.31E-03	2.91E-03
		I-131	<1.33E-02	0.00E+00	1.33E-02
		Cs-134	<1.16E-02	0.00E+00	1.16E-02
		Cs-137	<2.03E-02	0.00E+00	2.03E-02
		Be-7	<2.36E-01	0.00E+00	2.36E-01



**MCGUIRE Radiological Environmental Monitoring Analysis Report - 2012 (Appendix E)**

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

Sample Point 102 [ CONTROL - WNW @ 9.89 miles ]

Sample ID:	Sample Dates:	Nuclide	Activity	1 Sigma Error	LLD
247778	10/29/2012 - 11/5/2012	K-40	<3.53E-01	0.00E+00	3.53E-01
		Beta	2.73E-02	1.59E-03	3.06E-03
247970	11/5/2012 - 11/12/2012	I-131	<1.66E-02	0.00E+00	1.66E-02
		Cs-134	<1.69E-02	0.00E+00	1.69E-02
		Cs-137	<1.94E-02	0.00E+00	1.94E-02
		Be-7	2.35E-01	4.91E-02	1.43E-01
		K-40	<4.71E-01	0.00E+00	4.71E-01
		Beta	2.92E-02	1.62E-03	2.98E-03
248374	11/12/2012 - 11/19/2012	I-131	<1.74E-02	0.00E+00	1.74E-02
		Cs-134	<1.92E-02	0.00E+00	1.92E-02
		Cs-137	<1.19E-02	0.00E+00	1.19E-02
		Be-7	<1.92E-01	0.00E+00	1.92E-01
		K-40	<4.66E-01	0.00E+00	4.66E-01
		Beta	2.98E-02	1.60E-03	2.79E-03
248653	11/19/2012 - 11/26/2012	I-131	<2.51E-02	0.00E+00	2.51E-02
		Cs-134	<2.09E-02	0.00E+00	2.09E-02
		Cs-137	<2.19E-02	0.00E+00	2.19E-02
		Be-7	1.84E-01	8.33E-02	1.65E-01
		K-40	<4.91E-01	0.00E+00	4.91E-01
		Beta	3.39E-02	1.74E-03	3.14E-03
249040	11/26/2012 - 12/3/2012	I-131	<1.82E-02	0.00E+00	1.82E-02
		Cs-134	<1.70E-02	0.00E+00	1.70E-02
		Cs-137	<2.42E-02	0.00E+00	2.42E-02
		Be-7	1.74E-01	4.90E-02	1.60E-01
		K-40	<5.14E-01	0.00E+00	5.14E-01
		Beta	2.61E-02	1.57E-03	3.03E-03
249265	12/3/2012 - 12/10/2012	I-131	<2.26E-02	0.00E+00	2.26E-02
		Cs-134	<2.07E-02	0.00E+00	2.07E-02
		Cs-137	<2.37E-02	0.00E+00	2.37E-02
		Be-7	1.63E-01	6.24E-02	1.21E-01
		K-40	<3.54E-01	0.00E+00	3.54E-01
		Beta	2.56E-02	1.55E-03	2.99E-03
249463	12/10/2012 - 12/17/2012	I-131	<1.84E-02	0.00E+00	1.84E-02
		Cs-134	<2.29E-02	0.00E+00	2.29E-02
		Cs-137	<1.94E-02	0.00E+00	1.94E-02
		Be-7	9.95E-02	6.26E-02	2.03E-01
		K-40	<5.23E-01	0.00E+00	5.23E-01
		Beta	2.54E-02	1.55E-03	3.03E-03
249890	12/17/2012 - 12/24/2012	I-131	<2.19E-02	0.00E+00	2.19E-02
		Cs-134	<1.63E-02	0.00E+00	1.63E-02
		Cs-137	<1.75E-02	0.00E+00	1.75E-02
		Be-7	1.96E-01	6.53E-02	1.64E-01
		K-40	<3.55E-01	0.00E+00	3.55E-01
		Beta	2.41E-02	1.50E-03	2.91E-03
250197	12/24/2012 - 12/31/2012	I-131	<1.77E-02	0.00E+00	1.77E-02
		Cs-134	<1.84E-02	0.00E+00	1.84E-02
		Cs-137	<1.01E-02	0.00E+00	1.01E-02
		Be-7	1.65E-01	4.13E-02	1.48E-01
		K-40	<5.11E-01	0.00E+00	5.11E-01
		Beta	2.51E-02	1.66E-03	3.30E-03

Sample Point 103 [ INDICATOR - NE @ 4.2 miles ]

Sample ID:	Sample Dates:	Nuclide	Activity	1 Sigma Error	LLD
227160	1/3/2012 - 1/9/2012	Beta	2.51E-02	1.66E-03	3.30E-03
		I-131	<8.81E-03	0.00E+00	8.81E-03



**MCGUIRE Radiological Environmental Monitoring Analysis Report - 2012 (Appendix E)**

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

Sample Point 103 [ INDICATOR - NE @ 4.2 miles ]

Sample ID:	Sample Dates:	Nuclide	Activity	1 Sigma Error	LLD
227160	1/3/2012 - 1/9/2012	Cs-134	<8.90E-03	0.00E+00	8.90E-03
		Cs-137	<8.94E-03	0.00E+00	8.94E-03
		Be-7	1.94E-01	3.86E-02	5.64E-02
		K-40	1.85E-01	4.63E-02	1.48E-01
227293	1/9/2012 - 1/16/2012	Nuclide	Activity	1 Sigma Error	LLD
		Beta	1.71E-02	1.36E-03	2.97E-03
		I-131	<7.14E-03	0.00E+00	7.14E-03
		Cs-134	<9.67E-03	0.00E+00	9.67E-03
		Cs-137	<1.00E-02	0.00E+00	1.00E-02
		Be-7	8.82E-02	2.49E-02	6.70E-02
		K-40	<2.35E-01	0.00E+00	2.35E-01
227508	1/16/2012 - 1/23/2012	Nuclide	Activity	1 Sigma Error	LLD
		Beta	1.89E-02	1.39E-03	2.87E-03
		I-131	<5.98E-03	0.00E+00	5.98E-03
		Cs-134	<8.04E-03	0.00E+00	8.04E-03
		Cs-137	<9.73E-03	0.00E+00	9.73E-03
		Be-7	9.56E-02	2.98E-02	5.49E-02
		K-40	1.92E-01	4.40E-02	1.38E-01
227830	1/23/2012 - 1/30/2012	Nuclide	Activity	1 Sigma Error	LLD
		Beta	1.54E-02	1.28E-03	2.80E-03
		I-131	<1.30E-02	0.00E+00	1.30E-02
		Cs-134	<1.44E-02	0.00E+00	1.44E-02
		Cs-137	<1.54E-02	0.00E+00	1.54E-02
		Be-7	<1.86E-01	0.00E+00	1.86E-01
		K-40	<4.15E-01	0.00E+00	4.15E-01
228097	1/30/2012 - 2/6/2012	Nuclide	Activity	1 Sigma Error	LLD
		Beta	1.99E-02	1.38E-03	2.78E-03
		I-131	<1.60E-02	0.00E+00	1.60E-02
		Cs-134	<1.69E-02	0.00E+00	1.69E-02
		Cs-137	<1.48E-02	0.00E+00	1.48E-02
		Be-7	1.77E-01	5.02E-02	1.28E-01
		K-40	<3.15E-01	0.00E+00	3.15E-01
229408	2/6/2012 - 2/13/2012	Nuclide	Activity	1 Sigma Error	LLD
		Beta	1.46E-02	1.34E-03	3.15E-03
		I-131	<9.58E-03	0.00E+00	9.58E-03
		Cs-134	<8.05E-03	0.00E+00	8.05E-03
		Cs-137	<6.88E-03	0.00E+00	6.88E-03
		Be-7	1.31E-01	4.80E-02	7.99E-02
		K-40	<2.23E-01	0.00E+00	2.23E-01
230034	2/13/2012 - 2/20/2012	Nuclide	Activity	1 Sigma Error	LLD
		Beta	1.52E-02	1.40E-03	3.38E-03
		I-131	<6.38E-03	0.00E+00	6.38E-03
		Cs-134	<6.20E-03	0.00E+00	6.20E-03
		Cs-137	<1.03E-02	0.00E+00	1.03E-02
		Be-7	9.14E-02	3.14E-02	6.38E-02
		K-40	1.05E-01	3.32E-02	7.68E-02
230709	2/20/2012 - 2/27/2012	Nuclide	Activity	1 Sigma Error	LLD
		Beta	1.53E-02	1.33E-03	3.07E-03
		I-131	<1.67E-02	0.00E+00	1.67E-02
		Cs-134	<1.69E-02	0.00E+00	1.69E-02
		Cs-137	<1.58E-02	0.00E+00	1.58E-02
		Be-7	1.26E-01	5.97E-02	1.60E-01
		K-40	<5.24E-01	0.00E+00	5.24E-01
230918	2/27/2012 - 3/5/2012	Nuclide	Activity	1 Sigma Error	LLD
		Beta	1.73E-02	1.40E-03	3.15E-03
		I-131	<7.28E-03	0.00E+00	7.28E-03
		Cs-134	<9.08E-03	0.00E+00	9.08E-03
		Cs-137	<6.07E-03	0.00E+00	6.07E-03
		Be-7	1.37E-01	3.54E-02	5.94E-02
		K-40	<1.90E-01	0.00E+00	1.90E-01



# MCGUIRE Radiological Environmental Monitoring Analysis Report - 2012 (Appendix E)

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

Sample Point 103 [ INDICATOR - NE @ 4.2 miles ]

Sample ID:	Sample Dates:	Nuclide	Activity	1 Sigma Error	LLD
231628	3/5/2012 - 3/12/2012	Beta	1.50E-02	1.37E-03	3.29E-03
		I-131	<5.68E-03	0.00E+00	5.68E-03
		Cs-134	<7.15E-03	0.00E+00	7.15E-03
		Cs-137	<8.26E-03	0.00E+00	8.26E-03
		Be-7	2.57E-01	3.23E-02	3.34E-02
		K-40	<2.12E-01	0.00E+00	2.12E-01
232442	3/12/2012 - 3/19/2012	Beta	1.40E-02	1.28E-03	3.00E-03
		I-131	<1.39E-02	0.00E+00	1.39E-02
		Cs-134	<1.87E-02	0.00E+00	1.87E-02
		Cs-137	<1.77E-02	0.00E+00	1.77E-02
		Be-7	1.23E-01	5.75E-02	1.62E-01
		K-40	<3.58E-01	0.00E+00	3.58E-01
233282	3/19/2012 - 3/26/2012	Beta	1.57E-02	1.33E-03	3.05E-03
		I-131	<6.91E-03	0.00E+00	6.91E-03
		Cs-134	<6.30E-03	0.00E+00	6.30E-03
		Cs-137	<9.64E-03	0.00E+00	9.64E-03
		Be-7	1.36E-01	3.65E-02	5.17E-02
		K-40	<1.87E-01	0.00E+00	1.87E-01
233523	3/26/2012 - 4/2/2012	Beta	1.75E-02	1.40E-03	3.16E-03
		I-131	<6.96E-03	0.00E+00	6.96E-03
		Cs-134	<7.97E-03	0.00E+00	7.97E-03
		Cs-137	<1.05E-02	0.00E+00	1.05E-02
		Be-7	1.23E-01	4.45E-02	9.07E-02
		K-40	<2.27E-01	0.00E+00	2.27E-01
234441	4/2/2012 - 4/9/2012	Beta	1.98E-02	1.38E-03	2.68E-03
		I-131	<9.03E-03	0.00E+00	9.03E-03
		Cs-134	<1.17E-02	0.00E+00	1.17E-02
		Cs-137	<1.03E-02	0.00E+00	1.03E-02
		Be-7	9.27E-02	3.20E-02	7.36E-02
		K-40	<2.28E-01	0.00E+00	2.28E-01
234868	4/9/2012 - 4/16/2012	Beta	1.44E-02	1.37E-03	3.38E-03
		I-131	<7.85E-03	0.00E+00	7.85E-03
		Cs-134	<6.49E-03	0.00E+00	6.49E-03
		Cs-137	<8.11E-03	0.00E+00	8.11E-03
		Be-7	1.64E-01	3.43E-02	5.21E-02
		K-40	1.83E-01	5.55E-02	1.18E-01
235191	4/16/2012 - 4/23/2012	Beta	1.38E-02	1.32E-03	3.18E-03
		I-131	<1.91E-02	0.00E+00	1.91E-02
		Cs-134	<1.65E-02	0.00E+00	1.65E-02
		Cs-137	<2.30E-02	0.00E+00	2.30E-02
		Be-7	1.12E-01	5.61E-02	1.60E-01
		K-40	<4.17E-01	0.00E+00	4.17E-01
235376	4/23/2012 - 4/30/2012	Beta	2.09E-02	1.45E-03	2.96E-03
		I-131	<8.53E-03	0.00E+00	8.53E-03
		Cs-134	<8.60E-03	0.00E+00	8.60E-03
		Cs-137	<1.45E-02	0.00E+00	1.45E-02
		Be-7	2.00E-01	5.19E-02	8.53E-02
		K-40	<2.94E-01	0.00E+00	2.94E-01
235714	4/30/2012 - 5/7/2012	Beta	1.61E-02	1.39E-03	3.28E-03
		I-131	<5.79E-03	0.00E+00	5.79E-03
		Cs-134	<9.30E-03	0.00E+00	9.30E-03
		Cs-137	<7.35E-03	0.00E+00	7.35E-03
		Be-7	1.66E-01	3.84E-02	4.74E-02



# MCGUIRE Radiological Environmental Monitoring Analysis Report - 2012 (Appendix E)

Media Type: AIR PARTICULATE Concentration (Activity): pCi/m<sup>3</sup>

Sample Point 103 [ INDICATOR - NE @ 4.2 miles ]

Sample ID:	Sample Dates:	Nuclide	Activity	1 Sigma Error	LLD
235714	4/30/2012 - 5/7/2012	K-40	<1.74E-01	0.00E+00	1.74E-01
235960	5/7/2012 - 5/14/2012	Beta	1.97E-02	1.42E-03	3.03E-03
		I-131	<7.30E-03	0.00E+00	7.30E-03
		Cs-134	<8.87E-03	0.00E+00	8.87E-03
		Cs-137	<2.38E-03	0.00E+00	2.38E-03
		Be-7	1.96E-01	3.28E-02	5.72E-02
		K-40	<2.74E-01	0.00E+00	2.74E-01
236170	5/14/2012 - 5/21/2012	Beta	1.62E-02	1.34E-03	2.99E-03
		I-131	<1.78E-02	0.00E+00	1.78E-02
		Cs-134	<2.19E-02	0.00E+00	2.19E-02
		Cs-137	<1.43E-02	0.00E+00	1.43E-02
		Be-7	1.23E-01	4.24E-02	1.77E-01
		K-40	<4.20E-01	0.00E+00	4.20E-01
236483	5/21/2012 - 5/29/2012	Beta	1.84E-02	1.28E-03	2.72E-03
		I-131	<5.90E-03	0.00E+00	5.90E-03
		Cs-134	<4.37E-03	0.00E+00	4.37E-03
		Cs-137	<6.48E-03	0.00E+00	6.48E-03
		Be-7	1.55E-01	3.10E-02	5.50E-02
		K-40	2.06E-01	5.57E-02	7.70E-02
236782	5/29/2012 - 6/4/2012	Beta	1.63E-02	1.53E-03	3.58E-03
		I-131	<7.50E-03	0.00E+00	7.50E-03
		Cs-134	<8.27E-03	0.00E+00	8.27E-03
		Cs-137	<1.09E-02	0.00E+00	1.09E-02
		Be-7	1.94E-01	3.59E-02	5.07E-02
		K-40	3.74E-01	7.66E-02	1.66E-01
237108	6/4/2012 - 6/11/2012	Beta	1.52E-02	1.33E-03	3.08E-03
		I-131	<9.66E-03	0.00E+00	9.66E-03
		Cs-134	<8.01E-03	0.00E+00	8.01E-03
		Cs-137	<9.49E-03	0.00E+00	9.49E-03
		Be-7	1.52E-01	3.26E-02	6.81E-02
		K-40	<2.44E-01	0.00E+00	2.44E-01
237283	6/11/2012 - 6/18/2012	Beta	1.54E-02	1.32E-03	3.03E-03
		I-131	<5.70E-03	0.00E+00	5.70E-03
		Cs-134	<6.84E-03	0.00E+00	6.84E-03
		Cs-137	<1.53E-02	0.00E+00	1.53E-02
		Be-7	1.65E-01	3.76E-02	6.72E-02
		K-40	<2.89E-01	0.00E+00	2.89E-01
237959	6/18/2012 - 6/25/2012	Beta	2.05E-02	1.46E-03	3.08E-03
		I-131	<5.02E-03	0.00E+00	5.02E-03
		Cs-134	<6.37E-03	0.00E+00	6.37E-03
		Cs-137	<6.48E-03	0.00E+00	6.48E-03
		Be-7	1.60E-01	3.06E-02	5.00E-02
		K-40	2.62E-01	4.87E-02	2.44E-02
238711	6/25/2012 - 7/2/2012	Beta	2.33E-02	1.54E-03	3.15E-03
		I-131	<1.56E-02	0.00E+00	1.56E-02
		Cs-134	<1.03E-02	0.00E+00	1.03E-02
		Cs-137	<1.55E-02	0.00E+00	1.55E-02
		Be-7	1.73E-01	6.43E-02	1.13E-01
		K-40	<4.88E-01	0.00E+00	4.88E-01
239088	7/2/2012 - 7/9/2012	Beta	2.72E-02	1.61E-03	3.13E-03
		I-131	<1.44E-02	0.00E+00	1.44E-02
		Cs-134	<2.31E-02	0.00E+00	2.31E-02





**MCGUIRE Radiological Environmental Monitoring Analysis Report - 2012 (Appendix E)**

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

Sample Point 103 [ INDICATOR - NE @ 4.2 miles ]

Sample ID:	Sample Dates:	Nuclide	Activity	1 Sigma Error	LLD
239088	7/2/2012 - 7/9/2012	Cs-137	<2.10E-02	0.00E+00	2.10E-02
		Be-7	<1.86E-01	0.00E+00	1.86E-01
		K-40	<4.98E-01	0.00E+00	4.98E-01
		Beta	1.52E-02	1.34E-03	3.12E-03
239859	7/9/2012 - 7/16/2012	I-131	<6.26E-03	0.00E+00	6.26E-03
		Cs-134	<8.51E-03	0.00E+00	8.51E-03
		Cs-137	<8.27E-03	0.00E+00	8.27E-03
		Be-7	1.14E-01	3.68E-02	5.59E-02
		K-40	<2.44E-01	0.00E+00	2.44E-01
		Beta	1.59E-02	1.32E-03	2.97E-03
239884	7/16/2012 - 7/23/2012	I-131	<6.63E-03	0.00E+00	6.63E-03
		Cs-134	<6.95E-03	0.00E+00	6.95E-03
		Cs-137	<1.08E-02	0.00E+00	1.08E-02
		Be-7	9.83E-02	2.98E-02	5.10E-02
		K-40	<2.17E-01	0.00E+00	2.17E-01
		Beta	2.05E-02	1.45E-03	3.06E-03
240304	7/23/2012 - 7/30/2012	I-131	<9.53E-03	0.00E+00	9.53E-03
		Cs-134	<1.16E-02	0.00E+00	1.16E-02
		Cs-137	<4.41E-03	0.00E+00	4.41E-03
		Be-7	1.11E-01	4.91E-02	7.03E-02
		K-40	<2.43E-01	0.00E+00	2.43E-01
		Beta	1.93E-02	1.44E-03	3.15E-03
240941	7/30/2012 - 8/6/2012	I-131	<7.30E-03	0.00E+00	7.30E-03
		Cs-134	<8.33E-03	0.00E+00	8.33E-03
		Cs-137	<9.49E-03	0.00E+00	9.49E-03
		Be-7	1.14E-01	3.36E-02	7.31E-02
		K-40	<2.27E-01	0.00E+00	2.27E-01
		Beta	1.20E-02	1.23E-03	2.97E-03
241212	8/6/2012 - 8/13/2012	I-131	<6.98E-03	0.00E+00	6.98E-03
		Cs-134	<6.38E-03	0.00E+00	6.38E-03
		Cs-137	<9.12E-03	0.00E+00	9.12E-03
		Be-7	1.31E-01	2.94E-02	5.22E-02
		K-40	1.64E-01	5.21E-02	1.04E-01
		Beta	2.45E-02	1.53E-03	3.02E-03
241519	8/13/2012 - 8/20/2012	I-131	<1.40E-02	0.00E+00	1.40E-02
		Cs-134	<1.60E-02	0.00E+00	1.60E-02
		Cs-137	<1.73E-02	0.00E+00	1.73E-02
		Be-7	1.51E-01	5.24E-02	1.28E-01
		K-40	<4.65E-01	0.00E+00	4.65E-01
		Beta	2.39E-02	1.59E-03	3.40E-03
242108	8/20/2012 - 8/27/2012	I-131	<1.76E-02	0.00E+00	1.76E-02
		Cs-134	<1.56E-02	0.00E+00	1.56E-02
		Cs-137	<2.29E-02	0.00E+00	2.29E-02
		Be-7	<2.23E-01	0.00E+00	2.23E-01
		K-40	<5.12E-01	0.00E+00	5.12E-01
		Beta	1.30E-02	1.17E-03	2.73E-03
242437	8/27/2012 - 9/4/2012	I-131	<6.18E-03	0.00E+00	6.18E-03
		Cs-134	<8.37E-03	0.00E+00	8.37E-03
		Cs-137	<8.58E-03	0.00E+00	8.58E-03
		Be-7	3.84E-02	2.51E-02	5.41E-02
		K-40	<1.79E-01	0.00E+00	1.79E-01
		Beta	1.53E-02	1.56E-03	3.88E-03
242964	9/4/2012 - 9/10/2012	Nuclide	Activity	1 Sigma Error	LLD
		Beta	1.53E-02	1.56E-03	3.88E-03



**MCGUIRE Radiological Environmental Monitoring Analysis Report - 2012 (Appendix E)**

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

Sample Point 103 [ INDICATOR - NE @ 4.2 miles ]

Sample ID:	Sample Dates:	Nuclide	Activity	1 Sigma Error	LLD
242964	9/4/2012 - 9/10/2012	I-131	<8.70E-03	0.00E+00	8.70E-03
		Cs-134	<9.62E-03	0.00E+00	9.62E-03
		Cs-137	<9.59E-03	0.00E+00	9.59E-03
		Be-7	1.63E-01	3.94E-02	7.87E-02
		K-40	<2.19E-01	0.00E+00	2.19E-01
243722	9/10/2012 - 9/17/2012	Beta	2.38E-02	1.57E-03	3.27E-03
		I-131	<8.19E-03	0.00E+00	8.19E-03
		Cs-134	<6.35E-03	0.00E+00	6.35E-03
		Cs-137	<9.13E-03	0.00E+00	9.13E-03
		Be-7	2.45E-01	3.91E-02	3.86E-02
244127	9/17/2012 - 9/24/2012	K-40	<1.28E-01	0.00E+00	1.28E-01
		Beta	1.95E-02	1.48E-03	3.30E-03
		I-131	<8.69E-03	0.00E+00	8.69E-03
		Cs-134	<1.21E-02	0.00E+00	1.21E-02
		Cs-137	<1.38E-02	0.00E+00	1.38E-02
245000	9/24/2012 - 10/1/2012	Be-7	2.18E-01	3.63E-02	7.06E-02
		K-40	<2.65E-01	0.00E+00	2.65E-01
		Beta	2.81E-02	1.63E-03	3.04E-03
		I-131	<1.35E-02	0.00E+00	1.35E-02
		Cs-134	<2.05E-02	0.00E+00	2.05E-02
245820	10/1/2012 - 10/8/2012	Cs-137	<1.81E-02	0.00E+00	1.81E-02
		Be-7	2.43E-01	5.96E-02	1.49E-01
		K-40	<4.31E-01	0.00E+00	4.31E-01
		Beta	2.75E-02	1.67E-03	3.47E-03
		I-131	<1.60E-02	0.00E+00	1.60E-02
246675	10/8/2012 - 10/15/2012	Cs-134	<1.20E-02	0.00E+00	1.20E-02
		Cs-137	<1.61E-02	0.00E+00	1.61E-02
		Be-7	<2.12E-01	0.00E+00	2.12E-01
		K-40	<3.60E-01	0.00E+00	3.60E-01
		Beta	2.73E-02	1.60E-03	3.11E-03
247083	10/15/2012 - 10/22/2012	I-131	<2.10E-02	0.00E+00	2.10E-02
		Cs-134	<2.03E-02	0.00E+00	2.03E-02
		Cs-137	<2.09E-02	0.00E+00	2.09E-02
		Be-7	<2.00E-01	0.00E+00	2.00E-01
		K-40	<4.63E-01	0.00E+00	4.63E-01
247399	10/22/2012 - 10/29/2012	Beta	2.70E-02	1.60E-03	3.05E-03
		I-131	<1.71E-02	0.00E+00	1.71E-02
		Cs-134	<1.01E-02	0.00E+00	1.01E-02
		Cs-137	<2.13E-02	0.00E+00	2.13E-02
		Be-7	1.47E-01	6.77E-02	1.52E-01
247737	10/29/2012 - 11/5/2012	K-40	<4.92E-01	0.00E+00	4.92E-01
		Beta	2.76E-02	1.63E-03	3.24E-03
		I-131	<1.76E-02	0.00E+00	1.76E-02
		Cs-134	<1.69E-02	0.00E+00	1.69E-02
		Cs-137	<2.41E-02	0.00E+00	2.41E-02
247737	10/29/2012 - 11/5/2012	Be-7	<2.02E-01	0.00E+00	2.02E-01
		K-40	<3.76E-01	0.00E+00	3.76E-01
		Beta	2.01E-02	1.41E-03	2.90E-03
		I-131	<1.88E-02	0.00E+00	1.88E-02
		Cs-134	<2.15E-02	0.00E+00	2.15E-02
247737	10/29/2012 - 11/5/2012	Cs-137	<4.34E-03	0.00E+00	4.34E-03
		Be-7	1.91E-01	4.38E-02	8.54E-02
		K-40	<4.64E-01	0.00E+00	4.64E-01



**MCGUIRE Radiological Environmental Monitoring Analysis Report - 2012 (Appendix E)**

Media Type: AIR PARTICULATE Concentration (Activity): pCi/m<sup>3</sup>

Sample Point 103 [ INDICATOR - NE @ 4.2 miles ]

Sample ID:	Sample Dates:	Nuclide	Activity	1 Sigma Error	LLD
247932	11/5/2012 - 11/12/2012	Beta	2.79E-02	1.60E-03	3.03E-03
		I-131	<1.33E-02	0.00E+00	1.33E-02
		Cs-134	<2.20E-02	0.00E+00	2.20E-02
		Cs-137	<1.49E-02	0.00E+00	1.49E-02
		Be-7	1.99E-01	5.39E-02	1.41E-01
		K-40	<5.10E-01	0.00E+00	5.10E-01
248336	11/12/2012 - 11/19/2012	Beta	2.78E-02	1.60E-03	3.02E-03
		I-131	<1.75E-02	0.00E+00	1.75E-02
		Cs-134	<2.20E-02	0.00E+00	2.20E-02
		Cs-137	<1.89E-02	0.00E+00	1.89E-02
		Be-7	1.40E-01	5.66E-02	1.20E-01
		K-40	<3.21E-01	0.00E+00	3.21E-01
248615	11/19/2012 - 11/26/2012	Beta	2.89E-02	1.58E-03	2.79E-03
		I-131	<1.78E-02	0.00E+00	1.78E-02
		Cs-134	<1.64E-02	0.00E+00	1.64E-02
		Cs-137	<2.59E-02	0.00E+00	2.59E-02
		Be-7	1.42E-01	5.68E-02	1.44E-01
		K-40	<3.86E-01	0.00E+00	3.86E-01
248988	11/26/2012 - 12/3/2012	Beta	3.07E-02	1.68E-03	3.13E-03
		I-131	<1.77E-02	0.00E+00	1.77E-02
		Cs-134	<2.04E-02	0.00E+00	2.04E-02
		Cs-137	<2.32E-02	0.00E+00	2.32E-02
		Be-7	2.02E-01	4.52E-02	2.73E-02
		K-40	<3.99E-01	0.00E+00	3.99E-01
249227	12/3/2012 - 12/10/2012	Beta	2.30E-02	1.49E-03	3.00E-03
		I-131	<1.72E-02	0.00E+00	1.72E-02
		Cs-134	<2.26E-02	0.00E+00	2.26E-02
		Cs-137	<1.81E-02	0.00E+00	1.81E-02
		Be-7	2.03E-01	4.53E-02	1.20E-01
		K-40	<5.38E-01	0.00E+00	5.38E-01
249425	12/10/2012 - 12/17/2012	Beta	2.28E-02	1.50E-03	3.02E-03
		I-131	<8.95E-03	0.00E+00	8.95E-03
		Cs-134	<2.30E-02	0.00E+00	2.30E-02
		Cs-137	<1.96E-02	0.00E+00	1.96E-02
		Be-7	<2.14E-01	0.00E+00	2.14E-01
		K-40	<4.72E-01	0.00E+00	4.72E-01
249852	12/17/2012 - 12/24/2012	Beta	2.60E-02	1.56E-03	3.03E-03
		I-131	<2.07E-02	0.00E+00	2.07E-02
		Cs-134	<2.28E-02	0.00E+00	2.28E-02
		Cs-137	<1.41E-02	0.00E+00	1.41E-02
		Be-7	1.12E-01	6.61E-02	1.50E-01
		K-40	<3.88E-01	0.00E+00	3.88E-01
250159	12/24/2012 - 12/31/2012	Beta	1.64E-02	1.32E-03	2.91E-03
		I-131	<1.27E-02	0.00E+00	1.27E-02
		Cs-134	<1.92E-02	0.00E+00	1.92E-02
		Cs-137	<2.31E-02	0.00E+00	2.31E-02
		Be-7	<2.22E-01	0.00E+00	2.22E-01
		K-40	<4.53E-01	0.00E+00	4.53E-01

Sample Point 120 [ INDICATOR - NNE @ 0.46 miles ]

Sample ID:	Sample Dates:	Nuclide	Activity	1 Sigma Error	LLD
227164	1/3/2012 - 1/9/2012	Beta	2.23E-02	1.58E-03	3.24E-03
		I-131	<9.38E-03	0.00E+00	9.38E-03
		Cs-134	<9.90E-03	0.00E+00	9.90E-03
		Cs-137	<1.20E-02	0.00E+00	1.20E-02



**MCGUIRE Radiological Environmental Monitoring Analysis Report - 2012 (Appendix E)**

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

Sample Point 120 [ INDICATOR - NNE @ 0.46 miles ]

Sample ID:	Sample Dates:	Nuclide	Activity	1 Sigma Error	LLD
227164	1/3/2012 - 1/9/2012	Be-7	1.45E-01	3.66E-02	6.52E-02
		K-40	<1.77E-01	0.00E+00	1.77E-01
227297	1/9/2012 - 1/16/2012	Beta	1.69E-02	1.37E-03	3.01E-03
		I-131	<6.71E-03	0.00E+00	6.71E-03
		Cs-134	<5.77E-03	0.00E+00	5.77E-03
		Cs-137	<3.94E-03	0.00E+00	3.94E-03
		Be-7	8.99E-02	2.15E-02	5.76E-02
		K-40	<2.01E-01	0.00E+00	2.01E-01
227512	1/16/2012 - 1/23/2012	Beta	1.80E-02	1.37E-03	2.87E-03
		I-131	<9.27E-03	0.00E+00	9.27E-03
		Cs-134	<8.24E-03	0.00E+00	8.24E-03
		Cs-137	<1.27E-02	0.00E+00	1.27E-02
		Be-7	1.16E-01	3.34E-02	6.75E-02
		K-40	<1.82E-01	0.00E+00	1.82E-01
227834	1/23/2012 - 1/30/2012	Beta	1.36E-02	1.23E-03	2.81E-03
		I-131	<1.36E-02	0.00E+00	1.36E-02
		Cs-134	<1.62E-02	0.00E+00	1.62E-02
		Cs-137	<1.19E-02	0.00E+00	1.19E-02
		Be-7	<2.19E-01	0.00E+00	2.19E-01
		K-40	<3.73E-01	0.00E+00	3.73E-01
228101	1/30/2012 - 2/6/2012	Beta	1.82E-02	1.33E-03	2.73E-03
		I-131	<1.42E-02	0.00E+00	1.42E-02
		Cs-134	<1.37E-02	0.00E+00	1.37E-02
		Cs-137	<1.83E-02	0.00E+00	1.83E-02
		Be-7	<1.94E-01	0.00E+00	1.94E-01
		K-40	<4.47E-01	0.00E+00	4.47E-01
229412	2/6/2012 - 2/13/2012	Beta	1.78E-02	1.44E-03	3.21E-03
		I-131	<8.38E-03	0.00E+00	8.38E-03
		Cs-134	<6.93E-03	0.00E+00	6.93E-03
		Cs-137	<9.28E-03	0.00E+00	9.28E-03
		Be-7	1.36E-01	3.64E-02	6.30E-02
		K-40	<2.24E-01	0.00E+00	2.24E-01
230038	2/13/2012 - 2/20/2012	Beta	1.70E-02	1.44E-03	3.38E-03
		I-131	<6.73E-03	0.00E+00	6.73E-03
		Cs-134	<5.25E-03	0.00E+00	5.25E-03
		Cs-137	<6.96E-03	0.00E+00	6.96E-03
		Be-7	1.27E-01	2.90E-02	5.66E-02
		K-40	<2.18E-01	0.00E+00	2.18E-01
230713	2/20/2012 - 2/27/2012	Beta	1.54E-02	1.33E-03	3.07E-03
		I-131	<1.48E-02	0.00E+00	1.48E-02
		Cs-134	<1.97E-02	0.00E+00	1.97E-02
		Cs-137	<1.76E-02	0.00E+00	1.76E-02
		Be-7	1.73E-01	7.71E-02	8.66E-02
		K-40	<3.55E-01	0.00E+00	3.55E-01
230922	2/27/2012 - 3/5/2012	Beta	1.65E-02	1.36E-03	3.10E-03
		I-131	<5.47E-03	0.00E+00	5.47E-03
		Cs-134	<6.40E-03	0.00E+00	6.40E-03
		Cs-137	<7.37E-03	0.00E+00	7.37E-03
		Be-7	1.20E-01	2.44E-02	4.44E-02
		K-40	<2.31E-01	0.00E+00	2.31E-01
231632	3/5/2012 - 3/12/2012	Beta	1.53E-02	1.40E-03	3.35E-03
		I-131	<6.70E-03	0.00E+00	6.70E-03



**MCGUIRE Radiological Environmental Monitoring Analysis Report - 2012 (Appendix E)**

Media Type: AIR PARTICULATE Concentration (Activity): pCi/m<sup>3</sup>

Sample Point 120 [ INDICATOR - NNE @ 0.46 miles ]

Sample ID:	Sample Dates:	Nuclide	Activity	1 Sigma Error	LLD
231632	3/5/2012 - 3/12/2012	Cs-134	<8.48E-03	0.00E+00	8.48E-03
		Cs-137	<9.33E-03	0.00E+00	9.33E-03
		Be-7	2.12E-01	3.60E-02	4.22E-02
		K-40	<1.95E-01	0.00E+00	1.95E-01
		Beta	1.39E-02	1.28E-03	2.99E-03
232446	3/12/2012 - 3/19/2012	I-131	<8.95E-03	0.00E+00	8.95E-03
		Cs-134	<8.98E-03	0.00E+00	8.98E-03
		Cs-137	<1.18E-02	0.00E+00	1.18E-02
		Be-7	1.78E-01	4.65E-02	6.23E-02
		K-40	<2.43E-01	0.00E+00	2.43E-01
233286	3/19/2012 - 3/26/2012	Beta	1.37E-02	1.30E-03	3.09E-03
		I-131	<6.69E-03	0.00E+00	6.69E-03
		Cs-134	<5.64E-03	0.00E+00	5.64E-03
		Cs-137	<7.90E-03	0.00E+00	7.90E-03
		Be-7	1.50E-01	2.74E-02	4.56E-02
233527	3/26/2012 - 4/2/2012	K-40	2.13E-01	6.42E-02	1.08E-01
		Beta	2.02E-02	1.43E-03	3.05E-03
		I-131	<7.85E-03	0.00E+00	7.85E-03
		Cs-134	<8.54E-03	0.00E+00	8.54E-03
		Cs-137	<6.02E-03	0.00E+00	6.02E-03
234445	4/2/2012 - 4/9/2012	Be-7	1.86E-01	3.69E-02	5.60E-02
		K-40	<1.03E-01	0.00E+00	1.03E-01
		Beta	1.85E-02	1.37E-03	2.75E-03
		I-131	<7.43E-03	0.00E+00	7.43E-03
		Cs-134	<7.79E-03	0.00E+00	7.79E-03
234872	4/9/2012 - 4/16/2012	Cs-137	<8.58E-03	0.00E+00	8.58E-03
		Be-7	1.75E-01	3.52E-02	5.93E-02
		K-40	<1.80E-01	0.00E+00	1.80E-01
		Beta	1.51E-02	1.39E-03	3.36E-03
		I-131	<7.52E-03	0.00E+00	7.52E-03
235195	4/16/2012 - 4/23/2012	Cs-134	<7.50E-03	0.00E+00	7.50E-03
		Cs-137	<1.35E-02	0.00E+00	1.35E-02
		Be-7	1.17E-01	4.30E-02	5.27E-02
		K-40	<2.17E-01	0.00E+00	2.17E-01
		Beta	1.58E-02	1.36E-03	3.18E-03
235380	4/23/2012 - 4/30/2012	I-131	<5.10E-03	0.00E+00	5.10E-03
		Cs-134	<4.93E-03	0.00E+00	4.93E-03
		Cs-137	<7.01E-03	0.00E+00	7.01E-03
		Be-7	5.88E-02	1.88E-02	4.50E-02
		K-40	<2.23E-01	0.00E+00	2.23E-01
235718	4/30/2012 - 5/7/2012	Beta	2.30E-02	1.48E-03	2.93E-03
		I-131	<6.68E-03	0.00E+00	6.68E-03
		Cs-134	<5.00E-03	0.00E+00	5.00E-03
		Cs-137	<9.38E-03	0.00E+00	9.38E-03
		Be-7	1.75E-01	3.85E-02	5.46E-02
235718	4/30/2012 - 5/7/2012	K-40	<2.26E-01	0.00E+00	2.26E-01
		Beta	1.79E-02	1.45E-03	3.32E-03
		I-131	<6.79E-03	0.00E+00	6.79E-03
		Cs-134	<5.61E-03	0.00E+00	5.61E-03
		Cs-137	<6.26E-03	0.00E+00	6.26E-03



**MCGUIRE Radiological Environmental Monitoring Analysis Report - 2012 (Appendix E)**

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

Sample Point 120 [ INDICATOR - NNE @ 0.46 miles ]

Sample ID:	Sample Dates:	Nuclide	Activity	1 Sigma Error	LLD
235964	5/7/2012 - 5/14/2012	Beta	1.56E-02	1.33E-03	3.04E-03
		I-131	<1.87E-02	0.00E+00	1.87E-02
		Cs-134	<1.82E-02	0.00E+00	1.82E-02
		Cs-137	<1.98E-02	0.00E+00	1.98E-02
		Be-7	1.47E-01	5.88E-02	1.54E-01
		K-40	<4.49E-01	0.00E+00	4.49E-01
236174	5/14/2012 - 5/21/2012	Beta	1.48E-02	1.30E-03	2.98E-03
		I-131	<3.82E-03	0.00E+00	3.82E-03
		Cs-134	<3.86E-03	0.00E+00	3.86E-03
		Cs-137	<4.14E-03	0.00E+00	4.14E-03
		Be-7	1.45E-01	2.12E-02	3.04E-02
		K-40	2.46E-01	4.14E-02	5.98E-02
236487	5/21/2012 - 5/29/2012	Beta	1.67E-02	1.24E-03	2.74E-03
		I-131	<1.20E-02	0.00E+00	1.20E-02
		Cs-134	<1.46E-02	0.00E+00	1.46E-02
		Cs-137	<1.20E-02	0.00E+00	1.20E-02
		Be-7	1.62E-01	5.25E-02	1.38E-01
		K-40	<4.23E-01	0.00E+00	4.23E-01
236786	5/29/2012 - 6/4/2012	Beta	1.89E-02	1.60E-03	3.56E-03
		I-131	<9.05E-03	0.00E+00	9.05E-03
		Cs-134	<1.14E-02	0.00E+00	1.14E-02
		Cs-137	<1.43E-02	0.00E+00	1.43E-02
		Be-7	1.82E-01	3.37E-02	6.41E-02
		K-40	<2.39E-01	0.00E+00	2.39E-01
237112	6/4/2012 - 6/11/2012	Beta	1.66E-02	1.37E-03	3.09E-03
		I-131	<6.42E-03	0.00E+00	6.42E-03
		Cs-134	<6.79E-03	0.00E+00	6.79E-03
		Cs-137	<9.88E-03	0.00E+00	9.88E-03
		Be-7	1.02E-01	3.67E-02	5.36E-02
		K-40	<1.73E-01	0.00E+00	1.73E-01
237287	6/11/2012 - 6/18/2012	Beta	1.59E-02	1.33E-03	3.03E-03
		I-131	<5.85E-03	0.00E+00	5.85E-03
		Cs-134	<6.92E-03	0.00E+00	6.92E-03
		Cs-137	<9.76E-03	0.00E+00	9.76E-03
		Be-7	1.74E-01	3.75E-02	6.55E-02
		K-40	<1.56E-01	0.00E+00	1.56E-01
237963	6/18/2012 - 6/25/2012	Beta	2.26E-02	1.49E-03	3.03E-03
		I-131	<4.03E-03	0.00E+00	4.03E-03
		Cs-134	<6.67E-03	0.00E+00	6.67E-03
		Cs-137	<1.06E-02	0.00E+00	1.06E-02
		Be-7	2.11E-01	3.08E-02	6.32E-02
		K-40	1.92E-01	5.33E-02	1.25E-01
238715	6/25/2012 - 7/2/2012	Beta	2.44E-02	1.57E-03	3.19E-03
		I-131	<1.51E-02	0.00E+00	1.51E-02
		Cs-134	<8.80E-03	0.00E+00	8.80E-03
		Cs-137	<1.08E-02	0.00E+00	1.08E-02
		Be-7	2.94E-01	4.24E-02	5.44E-02
		K-40	<2.80E-01	0.00E+00	2.80E-01
239092	7/2/2012 - 7/9/2012	Beta	3.08E-02	1.68E-03	3.14E-03
		I-131	<1.79E-02	0.00E+00	1.79E-02
		Cs-134	<2.22E-02	0.00E+00	2.22E-02
		Cs-137	<1.96E-02	0.00E+00	1.96E-02
		Be-7	2.52E-01	6.44E-02	8.73E-02



**MCGUIRE Radiological Environmental Monitoring Analysis Report - 2012 (Appendix E)**

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

Sample Point 120 [ INDICATOR - NNE @ 0.46 miles ]

Sample ID:	Sample Dates:	Nuclide	Activity	1 Sigma Error	LLD
239092	7/2/2012 - 7/9/2012	K-40	<4.46E-01	0.00E+00	4.46E-01
239863	7/9/2012 - 7/16/2012	Beta	1.38E-02	1.31E-03	3.12E-03
		I-131	<7.03E-03	0.00E+00	7.03E-03
		Cs-134	<8.58E-03	0.00E+00	8.58E-03
		Cs-137	<1.02E-02	0.00E+00	1.02E-02
		Be-7	1.36E-01	3.68E-02	6.26E-02
		K-40	<1.95E-01	0.00E+00	1.95E-01
239988	7/16/2012 - 7/23/2012	Beta	1.48E-02	1.28E-03	2.93E-03
		I-131	<3.72E-03	0.00E+00	3.72E-03
		Cs-134	<7.16E-03	0.00E+00	7.16E-03
		Cs-137	<8.41E-03	0.00E+00	8.41E-03
		Be-7	<9.52E-02	0.00E+00	9.52E-02
		K-40	<1.67E-01	0.00E+00	1.67E-01
240308	7/23/2012 - 7/30/2012	Beta	2.11E-02	1.49E-03	3.11E-03
		I-131	<6.58E-03	0.00E+00	6.58E-03
		Cs-134	<8.59E-03	0.00E+00	8.59E-03
		Cs-137	<7.96E-03	0.00E+00	7.96E-03
		Be-7	1.72E-01	3.11E-02	5.78E-02
		K-40	<2.13E-01	0.00E+00	2.13E-01
240945	7/30/2012 - 8/6/2012	Beta	2.32E-02	1.52E-03	3.13E-03
		I-131	<5.74E-03	0.00E+00	5.74E-03
		Cs-134	<9.09E-03	0.00E+00	9.09E-03
		Cs-137	<1.00E-02	0.00E+00	1.00E-02
		Be-7	1.41E-01	2.88E-02	6.14E-02
		K-40	<2.17E-01	0.00E+00	2.17E-01
241216	8/6/2012 - 8/13/2012	Beta	1.38E-02	1.28E-03	2.98E-03
		I-131	<9.30E-03	0.00E+00	9.30E-03
		Cs-134	<9.10E-03	0.00E+00	9.10E-03
		Cs-137	<1.13E-02	0.00E+00	1.13E-02
		Be-7	1.23E-01	4.03E-02	7.03E-02
		K-40	1.96E-01	4.63E-02	1.48E-01
241523	8/13/2012 - 8/20/2012	Beta	3.02E-02	1.62E-03	2.96E-03
		I-131	<1.73E-02	0.00E+00	1.73E-02
		Cs-134	<1.71E-02	0.00E+00	1.71E-02
		Cs-137	<1.80E-02	0.00E+00	1.80E-02
		Be-7	2.12E-01	5.52E-02	1.35E-01
		K-40	<3.78E-01	0.00E+00	3.78E-01
242112	8/20/2012 - 8/27/2012	Beta	3.12E-02	1.75E-03	3.44E-03
		I-131	<1.67E-02	0.00E+00	1.67E-02
		Cs-134	<2.38E-02	0.00E+00	2.38E-02
		Cs-137	<2.12E-02	0.00E+00	2.12E-02
		Be-7	1.84E-01	5.30E-02	1.35E-01
		K-40	<4.97E-01	0.00E+00	4.97E-01
242441	8/27/2012 - 9/4/2012	Beta	1.31E-02	1.16E-03	2.71E-03
		I-131	<5.30E-03	0.00E+00	5.30E-03
		Cs-134	<6.28E-03	0.00E+00	6.28E-03
		Cs-137	<8.09E-03	0.00E+00	8.09E-03
		Be-7	7.20E-02	2.68E-02	5.18E-02
		K-40	<1.69E-01	0.00E+00	1.69E-01
242968	9/4/2012 - 9/10/2012	Beta	1.59E-02	1.57E-03	3.88E-03
		I-131	<6.68E-03	0.00E+00	6.68E-03
		Cs-134	<1.18E-02	0.00E+00	1.18E-02



**MCGUIRE Radiological Environmental Monitoring Analysis Report - 2012 (Appendix E)**

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

Sample Point 120 [ INDICATOR - NNE @ 0.46 miles ]

Sample ID:	Sample Dates:	Nuclide	Activity	1 Sigma Error	LLD
242968	9/4/2012 - 9/10/2012	Cs-137	<1.12E-02	0.00E+00	1.12E-02
		Be-7	1.41E-01	3.22E-02	6.57E-02
		K-40	<1.96E-01	0.00E+00	1.96E-01
		Beta	2.23E-02	1.49E-03	3.14E-03
243726	9/10/2012 - 9/17/2012	I-131	<8.70E-03	0.00E+00	8.70E-03
		Cs-134	<8.57E-03	0.00E+00	8.57E-03
		Cs-137	<2.60E-03	0.00E+00	2.60E-03
		Be-7	2.18E-01	5.45E-02	5.34E-02
		K-40	1.83E-01	5.78E-02	4.94E-02
244131	9/17/2012 - 9/24/2012	Beta	2.19E-02	1.55E-03	3.34E-03
		I-131	<7.51E-03	0.00E+00	7.51E-03
		Cs-134	<7.87E-03	0.00E+00	7.87E-03
		Cs-137	<8.53E-03	0.00E+00	8.53E-03
		Be-7	1.53E-01	2.93E-02	4.95E-02
		K-40	<2.13E-01	0.00E+00	2.13E-01
245004	9/24/2012 - 10/1/2012	Beta	3.17E-02	1.67E-03	2.97E-03
		I-131	<1.08E-02	0.00E+00	1.08E-02
		Cs-134	<2.14E-02	0.00E+00	2.14E-02
		Cs-137	<1.85E-02	0.00E+00	1.85E-02
		Be-7	1.94E-01	6.86E-02	1.33E-01
		K-40	2.62E-01	8.74E-02	3.22E-01
245824	10/1/2012 - 10/8/2012	Beta	2.50E-02	1.64E-03	3.51E-03
		I-131	<9.23E-03	0.00E+00	9.23E-03
		Cs-134	<1.03E-02	0.00E+00	1.03E-02
		Cs-137	<1.16E-02	0.00E+00	1.16E-02
		Be-7	9.31E-02	3.17E-02	7.05E-02
		K-40	<2.61E-01	0.00E+00	2.61E-01
246679	10/8/2012 - 10/15/2012	Beta	2.44E-02	1.52E-03	3.07E-03
		I-131	<2.03E-02	0.00E+00	2.03E-02
		Cs-134	<1.79E-02	0.00E+00	1.79E-02
		Cs-137	<2.74E-02	0.00E+00	2.74E-02
		Be-7	1.39E-01	5.26E-02	1.46E-01
		K-40	<4.31E-01	0.00E+00	4.31E-01
247087	10/15/2012 - 10/22/2012	Beta	3.11E-02	1.70E-03	3.10E-03
		I-131	<1.31E-02	0.00E+00	1.31E-02
		Cs-134	<1.76E-02	0.00E+00	1.76E-02
		Cs-137	<1.88E-02	0.00E+00	1.88E-02
		Be-7	<2.03E-01	0.00E+00	2.03E-01
		K-40	<3.97E-01	0.00E+00	3.97E-01
247403	10/22/2012 - 10/29/2012	Beta	3.28E-02	1.73E-03	3.24E-03
		I-131	<1.60E-02	0.00E+00	1.60E-02
		Cs-134	<1.92E-02	0.00E+00	1.92E-02
		Cs-137	<4.39E-03	0.00E+00	4.39E-03
		Be-7	2.22E-01	5.38E-02	1.14E-01
		K-40	<3.55E-01	0.00E+00	3.55E-01
247741	10/29/2012 - 11/5/2012	Beta	2.03E-02	1.41E-03	2.90E-03
		I-131	<1.52E-02	0.00E+00	1.52E-02
		Cs-134	<1.62E-02	0.00E+00	1.62E-02
		Cs-137	<2.10E-02	0.00E+00	2.10E-02
		Be-7	<1.59E-01	0.00E+00	1.59E-01
		K-40	<3.84E-01	0.00E+00	3.84E-01
247936	11/5/2012 - 11/12/2012	Beta	3.33E-02	1.68E-03	2.98E-03





**MCGUIRE Radiological Environmental Monitoring Analysis Report - 2012 (Appendix E)**

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

Sample Point 120 [ INDICATOR - NNE @ 0.46 miles ]

Sample ID:	Sample Dates:	Nuclide	Activity	1 Sigma Error	LLD
247936	11/5/2012 - 11/12/2012	I-131	<1.66E-02	0.00E+00	1.66E-02
		Cs-134	<2.08E-02	0.00E+00	2.08E-02
		Cs-137	<2.06E-02	0.00E+00	2.06E-02
		Be-7	1.43E-01	8.48E-02	1.78E-01
		K-40	<3.76E-01	0.00E+00	3.76E-01
248340	11/12/2012 - 11/19/2012	Beta	2.74E-02	1.61E-03	3.08E-03
		I-131	<1.28E-02	0.00E+00	1.28E-02
		Cs-134	<2.23E-02	0.00E+00	2.23E-02
		Cs-137	<1.54E-02	0.00E+00	1.54E-02
		Be-7	1.64E-01	5.01E-02	1.13E-01
		K-40	3.04E-01	9.61E-02	8.21E-02
248619	11/19/2012 - 11/26/2012	Beta	3.15E-02	1.64E-03	2.79E-03
		I-131	<1.76E-02	0.00E+00	1.76E-02
		Cs-134	<2.38E-02	0.00E+00	2.38E-02
		Cs-137	<1.74E-02	0.00E+00	1.74E-02
		Be-7	1.99E-01	7.21E-02	1.20E-01
		K-40	<4.92E-01	0.00E+00	4.92E-01
248992	11/26/2012 - 12/3/2012	Beta	3.38E-02	1.73E-03	3.13E-03
		I-131	<1.18E-02	0.00E+00	1.18E-02
		Cs-134	<2.11E-02	0.00E+00	2.11E-02
		Cs-137	<1.58E-02	0.00E+00	1.58E-02
		Be-7	1.61E-01	4.03E-02	1.70E-01
		K-40	<4.41E-01	0.00E+00	4.41E-01
249231	12/3/2012 - 12/10/2012	Beta	2.29E-02	1.47E-03	2.95E-03
		I-131	<1.95E-02	0.00E+00	1.95E-02
		Cs-134	<2.68E-02	0.00E+00	2.68E-02
		Cs-137	<2.37E-02	0.00E+00	2.37E-02
		Be-7	1.59E-01	4.77E-02	1.46E-01
		K-40	<3.77E-01	0.00E+00	3.77E-01
249429	12/10/2012 - 12/17/2012	Beta	2.45E-02	1.55E-03	3.08E-03
		I-131	<1.52E-02	0.00E+00	1.52E-02
		Cs-134	<2.23E-02	0.00E+00	2.23E-02
		Cs-137	<1.83E-02	0.00E+00	1.83E-02
		Be-7	<2.09E-01	0.00E+00	2.09E-01
		K-40	<3.98E-01	0.00E+00	3.98E-01
249856	12/17/2012 - 12/24/2012	Beta	2.72E-02	1.59E-03	3.02E-03
		I-131	<1.33E-02	0.00E+00	1.33E-02
		Cs-134	<1.27E-02	0.00E+00	1.27E-02
		Cs-137	<1.84E-02	0.00E+00	1.84E-02
		Be-7	1.71E-01	6.42E-02	1.14E-01
		K-40	<3.87E-01	0.00E+00	3.87E-01
250163	12/24/2012 - 12/31/2012	Beta	1.89E-02	1.39E-03	2.91E-03
		I-131	<1.39E-02	0.00E+00	1.39E-02
		Cs-134	<2.12E-02	0.00E+00	2.12E-02
		Cs-137	<1.86E-02	0.00E+00	1.86E-02
		Be-7	1.86E-01	4.39E-02	7.57E-02
		K-40	<5.12E-01	0.00E+00	5.12E-01

Sample Point 121 [ INDICATOR - NE @ 0.47 miles ]

Sample ID:	Sample Dates:	Nuclide	Activity	1 Sigma Error	LLD
227161	1/3/2012 - 1/9/2012	Beta	2.09E-02	1.56E-03	3.26E-03
		I-131	<7.36E-03	0.00E+00	7.36E-03
		Cs-134	<6.45E-03	0.00E+00	6.45E-03
		Cs-137	<8.88E-03	0.00E+00	8.88E-03
		Be-7	2.46E-01	3.35E-02	6.49E-02



**MCGUIRE Radiological Environmental Monitoring Analysis Report - 2012 (Appendix E)**

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

Sample Point 121 [ INDICATOR - NE @ 0.47 miles ]

Sample ID:	Sample Dates:	Nuclide	Activity	1 Sigma Error	LLD
227161	1/3/2012 - 1/9/2012	K-40	<2.20E-01	0.00E+00	2.20E-01
227294	1/9/2012 - 1/16/2012	Beta	1.73E-02	1.38E-03	3.01E-03
		I-131	<6.33E-03	0.00E+00	6.33E-03
		Cs-134	<5.39E-03	0.00E+00	5.39E-03
		Cs-137	<9.26E-03	0.00E+00	9.26E-03
		Be-7	1.00E-01	2.84E-02	4.18E-02
		K-40	1.70E-01	4.26E-02	1.48E-01
227509	1/16/2012 - 1/23/2012	Beta	1.91E-02	1.39E-03	2.87E-03
		I-131	<6.42E-03	0.00E+00	6.42E-03
		Cs-134	<7.24E-03	0.00E+00	7.24E-03
		Cs-137	<9.60E-03	0.00E+00	9.60E-03
		Be-7	1.17E-01	3.20E-02	4.74E-02
		K-40	<1.96E-01	0.00E+00	1.96E-01
227831	1/23/2012 - 1/30/2012	Beta	1.56E-02	1.29E-03	2.81E-03
		I-131	<9.30E-03	0.00E+00	9.30E-03
		Cs-134	<2.13E-02	0.00E+00	2.13E-02
		Cs-137	<1.22E-02	0.00E+00	1.22E-02
		Be-7	1.46E-01	5.45E-02	1.10E-01
		K-40	<5.14E-01	0.00E+00	5.14E-01
228098	1/30/2012 - 2/6/2012	Beta	2.05E-02	1.38E-03	2.74E-03
		I-131	<1.47E-02	0.00E+00	1.47E-02
		Cs-134	<2.25E-02	0.00E+00	2.25E-02
		Cs-137	<2.14E-02	0.00E+00	2.14E-02
		Be-7	1.58E-01	3.94E-02	1.38E-01
		K-40	<4.32E-01	0.00E+00	4.32E-01
229409	2/6/2012 - 2/13/2012	Beta	1.65E-02	1.40E-03	3.20E-03
		I-131	<5.02E-03	0.00E+00	5.02E-03
		Cs-134	<7.19E-03	0.00E+00	7.19E-03
		Cs-137	<9.69E-03	0.00E+00	9.69E-03
		Be-7	1.74E-01	3.23E-02	5.21E-02
		K-40	<2.19E-01	0.00E+00	2.19E-01
230035	2/13/2012 - 2/20/2012	Beta	1.43E-02	1.37E-03	3.38E-03
		I-131	<8.76E-03	0.00E+00	8.76E-03
		Cs-134	<8.84E-03	0.00E+00	8.84E-03
		Cs-137	<1.24E-02	0.00E+00	1.24E-02
		Be-7	1.25E-01	3.20E-02	8.18E-02
		K-40	1.21E-01	4.59E-02	1.53E-01
230710	2/20/2012 - 2/27/2012	Beta	1.88E-02	1.41E-03	3.07E-03
		I-131	<1.52E-02	0.00E+00	1.52E-02
		Cs-134	<1.60E-02	0.00E+00	1.60E-02
		Cs-137	<1.63E-02	0.00E+00	1.63E-02
		Be-7	1.89E-01	5.87E-02	1.72E-01
		K-40	<3.55E-01	0.00E+00	3.55E-01
230919	2/27/2012 - 3/5/2012	Beta	1.68E-02	1.37E-03	3.11E-03
		I-131	<7.32E-03	0.00E+00	7.32E-03
		Cs-134	<6.70E-03	0.00E+00	6.70E-03
		Cs-137	<7.76E-03	0.00E+00	7.76E-03
		Be-7	1.14E-01	3.06E-02	6.50E-02
		K-40	<1.71E-01	0.00E+00	1.71E-01
231629	3/5/2012 - 3/12/2012	Beta	1.59E-02	1.41E-03	3.34E-03
		I-131	<7.55E-03	0.00E+00	7.55E-03
		Cs-134	<1.15E-02	0.00E+00	1.15E-02



**MCGUIRE Radiological Environmental Monitoring Analysis Report - 2012 (Appendix E)**

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

Sample Point 121 [ INDICATOR - NE @ 0.47 miles ]

Sample ID:	Sample Dates:	Nuclide	Activity	1 Sigma Error	LLD
231629	3/5/2012 - 3/12/2012	Cs-137	<8.71E-03	0.00E+00	8.71E-03
		Be-7	1.75E-01	4.78E-02	8.30E-02
		K-40	<2.06E-01	0.00E+00	2.06E-01
232443	3/12/2012 - 3/19/2012	Beta	1.58E-02	1.33E-03	2.99E-03
		I-131	<6.82E-03	0.00E+00	6.82E-03
		Cs-134	<5.70E-03	0.00E+00	5.70E-03
		Cs-137	<7.91E-03	0.00E+00	7.91E-03
		Be-7	1.72E-01	3.14E-02	4.67E-02
		K-40	<2.04E-01	0.00E+00	2.04E-01
233283	3/19/2012 - 3/26/2012	Beta	1.55E-02	1.34E-03	3.08E-03
		I-131	<5.58E-03	0.00E+00	5.58E-03
		Cs-134	<4.34E-03	0.00E+00	4.34E-03
		Cs-137	<5.91E-03	0.00E+00	5.91E-03
		Be-7	1.73E-01	2.77E-02	4.51E-02
		K-40	1.23E-01	5.50E-02	1.35E-01
233524	3/26/2012 - 4/2/2012	Beta	1.88E-02	1.40E-03	3.06E-03
		I-131	<5.07E-03	0.00E+00	5.07E-03
		Cs-134	<7.92E-03	0.00E+00	7.92E-03
		Cs-137	<5.76E-03	0.00E+00	5.76E-03
		Be-7	1.40E-01	3.32E-02	6.48E-02
		K-40	1.02E-01	3.22E-02	2.75E-02
234442	4/2/2012 - 4/9/2012	Beta	1.58E-02	1.30E-03	2.73E-03
		I-131	<8.16E-03	0.00E+00	8.16E-03
		Cs-134	<7.43E-03	0.00E+00	7.43E-03
		Cs-137	<5.93E-03	0.00E+00	5.93E-03
		Be-7	1.68E-01	3.10E-02	5.65E-02
		K-40	<2.30E-01	0.00E+00	2.30E-01
234869	4/9/2012 - 4/16/2012	Beta	1.50E-02	1.39E-03	3.37E-03
		I-131	<5.84E-03	0.00E+00	5.84E-03
		Cs-134	<7.02E-03	0.00E+00	7.02E-03
		Cs-137	<8.92E-03	0.00E+00	8.92E-03
		Be-7	2.38E-01	3.16E-02	4.80E-02
		K-40	<2.08E-01	0.00E+00	2.08E-01
235192	4/16/2012 - 4/23/2012	Beta	1.57E-02	1.36E-03	3.18E-03
		I-131	<1.47E-02	0.00E+00	1.47E-02
		Cs-134	<1.59E-02	0.00E+00	1.59E-02
		Cs-137	<1.76E-02	0.00E+00	1.76E-02
		Be-7	1.38E-01	5.97E-02	1.68E-01
		K-40	<3.27E-01	0.00E+00	3.27E-01
235377	4/23/2012 - 4/30/2012	Beta	2.38E-02	1.50E-03	2.94E-03
		I-131	<5.84E-03	0.00E+00	5.84E-03
		Cs-134	<8.36E-03	0.00E+00	8.36E-03
		Cs-137	<7.93E-03	0.00E+00	7.93E-03
		Be-7	1.86E-01	2.91E-02	3.98E-02
		K-40	<2.15E-01	0.00E+00	2.15E-01
235715	4/30/2012 - 5/7/2012	Beta	1.78E-02	1.45E-03	3.31E-03
		I-131	<7.05E-03	0.00E+00	7.05E-03
		Cs-134	<7.12E-03	0.00E+00	7.12E-03
		Cs-137	<1.04E-02	0.00E+00	1.04E-02
		Be-7	1.97E-01	2.85E-02	5.23E-02
		K-40	1.59E-01	6.17E-02	8.68E-02
235961	5/7/2012 - 5/14/2012	Nuclide	Activity	1 Sigma Error	LLD
		Beta	1.66E-02	1.36E-03	3.04E-03



**MCGUIRE Radiological Environmental Monitoring Analysis Report - 2012 (Appendix E)**

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

Sample Point 121 [ INDICATOR - NE @ 0.47 miles ]

Sample ID:	Sample Dates:	Nuclide	Activity	1 Sigma Error	LLD
235961	5/7/2012 - 5/14/2012	I-131	<5.85E-03	0.00E+00	5.85E-03
		Cs-134	<8.52E-03	0.00E+00	8.52E-03
		Cs-137	<7.65E-03	0.00E+00	7.65E-03
		Be-7	1.17E-01	3.21E-02	6.57E-02
		K-40	1.89E-01	6.56E-02	1.45E-01
236171	5/14/2012 - 5/21/2012	Beta	1.65E-02	1.35E-03	2.98E-03
		I-131	<5.07E-03	0.00E+00	5.07E-03
		Cs-134	<5.71E-03	0.00E+00	5.71E-03
		Cs-137	<7.55E-03	0.00E+00	7.55E-03
		Be-7	1.22E-01	2.99E-02	5.10E-02
		K-40	1.64E-01	6.17E-02	9.70E-02
236484	5/21/2012 - 5/29/2012	Beta	1.87E-02	1.29E-03	2.75E-03
		I-131	<1.47E-02	0.00E+00	1.47E-02
		Cs-134	<1.10E-02	0.00E+00	1.10E-02
		Cs-137	<1.31E-02	0.00E+00	1.31E-02
		Be-7	1.60E-01	5.02E-02	1.31E-01
		K-40	<3.60E-01	0.00E+00	3.60E-01
236783	5/29/2012 - 6/4/2012	Beta	2.08E-02	1.64E-03	3.55E-03
		I-131	<1.55E-02	0.00E+00	1.55E-02
		Cs-134	<2.11E-02	0.00E+00	2.11E-02
		Cs-137	<2.02E-02	0.00E+00	2.02E-02
		Be-7	9.95E-02	4.90E-02	1.85E-01
		K-40	<5.92E-01	0.00E+00	5.92E-01
237109	6/4/2012 - 6/11/2012	Beta	1.46E-02	1.33E-03	3.11E-03
		I-131	<5.93E-03	0.00E+00	5.93E-03
		Cs-134	<5.71E-03	0.00E+00	5.71E-03
		Cs-137	<1.05E-02	0.00E+00	1.05E-02
		Be-7	1.54E-01	2.59E-02	5.01E-02
		K-40	<2.18E-01	0.00E+00	2.18E-01
237284	6/11/2012 - 6/18/2012	Beta	1.49E-02	1.30E-03	3.02E-03
		I-131	<7.19E-03	0.00E+00	7.19E-03
		Cs-134	<8.09E-03	0.00E+00	8.09E-03
		Cs-137	<7.90E-03	0.00E+00	7.90E-03
		Be-7	1.81E-01	3.30E-02	5.03E-02
		K-40	<1.74E-01	0.00E+00	1.74E-01
237960	6/18/2012 - 6/25/2012	Beta	2.52E-02	1.55E-03	3.05E-03
		I-131	<8.84E-03	0.00E+00	8.84E-03
		Cs-134	<8.55E-03	0.00E+00	8.55E-03
		Cs-137	<1.21E-02	0.00E+00	1.21E-02
		Be-7	2.28E-01	4.68E-02	7.58E-02
		K-40	1.35E-01	6.54E-02	2.36E-01
238712	6/25/2012 - 7/2/2012	Beta	2.41E-02	1.56E-03	3.19E-03
		I-131	<1.77E-02	0.00E+00	1.77E-02
		Cs-134	<1.80E-02	0.00E+00	1.80E-02
		Cs-137	<1.98E-02	0.00E+00	1.98E-02
		Be-7	2.52E-01	5.14E-02	1.49E-01
		K-40	<3.99E-01	0.00E+00	3.99E-01
239089	7/2/2012 - 7/9/2012	Beta	3.08E-02	1.68E-03	3.15E-03
		I-131	<1.63E-02	0.00E+00	1.63E-02
		Cs-134	<1.49E-02	0.00E+00	1.49E-02
		Cs-137	<1.21E-02	0.00E+00	1.21E-02
		Be-7	2.47E-01	6.63E-02	8.72E-02
		K-40	<4.48E-01	0.00E+00	4.48E-01



# MCGUIRE Radiological Environmental Monitoring Analysis Report - 2012 (Appendix E)

Media Type: AIR PARTICULATE Concentration (Activity): pCi/m<sup>3</sup>

Sample Point 121 [ INDICATOR - NE @ 0.47 miles ]

Sample ID:	Sample Dates:	Nuclide	Activity	1 Sigma Error	LLD
239860	7/9/2012 - 7/16/2012	Beta	1.54E-02	1.34E-03	3.12E-03
		I-131	<1.90E-02	0.00E+00	1.90E-02
		Cs-134	<2.05E-02	0.00E+00	2.05E-02
		Cs-137	<2.08E-02	0.00E+00	2.08E-02
		Be-7	<2.26E-01	0.00E+00	2.26E-01
		K-40	<3.57E-01	0.00E+00	3.57E-01
239985	7/16/2012 - 7/23/2012	Beta	1.45E-02	1.28E-03	2.93E-03
		I-131	<6.68E-03	0.00E+00	6.68E-03
		Cs-134	<7.52E-03	0.00E+00	7.52E-03
		Cs-137	<9.33E-03	0.00E+00	9.33E-03
		Be-7	1.11E-01	2.54E-02	4.60E-02
		K-40	<2.35E-01	0.00E+00	2.35E-01
240305	7/23/2012 - 7/30/2012	Beta	1.95E-02	1.44E-03	3.11E-03
		I-131	<7.26E-03	0.00E+00	7.26E-03
		Cs-134	<9.01E-03	0.00E+00	9.01E-03
		Cs-137	<1.00E-02	0.00E+00	1.00E-02
		Be-7	2.00E-01	3.16E-02	4.53E-02
		K-40	<1.97E-01	0.00E+00	1.97E-01
240942	7/30/2012 - 8/6/2012	Beta	2.31E-02	1.52E-03	3.13E-03
		I-131	<6.64E-03	0.00E+00	6.64E-03
		Cs-134	<6.43E-03	0.00E+00	6.43E-03
		Cs-137	<9.17E-03	0.00E+00	9.17E-03
		Be-7	1.46E-01	3.37E-02	5.79E-02
		K-40	2.75E-01	5.01E-02	2.47E-02
241213	8/6/2012 - 8/13/2012	Beta	1.18E-02	1.22E-03	2.98E-03
		I-131	<6.70E-03	0.00E+00	6.70E-03
		Cs-134	<9.57E-03	0.00E+00	9.57E-03
		Cs-137	<9.37E-03	0.00E+00	9.37E-03
		Be-7	1.09E-01	3.07E-02	6.02E-02
		K-40	<1.76E-01	0.00E+00	1.76E-01
241520	8/13/2012 - 8/20/2012	Beta	2.99E-02	1.62E-03	2.97E-03
		I-131	<1.40E-02	0.00E+00	1.40E-02
		Cs-134	<1.24E-02	0.00E+00	1.24E-02
		Cs-137	<1.71E-02	0.00E+00	1.71E-02
		Be-7	2.16E-01	5.35E-02	1.65E-01
		K-40	<4.34E-01	0.00E+00	4.34E-01
242109	8/20/2012 - 8/27/2012	Beta	2.92E-02	1.71E-03	3.43E-03
		I-131	<1.39E-02	0.00E+00	1.39E-02
		Cs-134	<1.73E-02	0.00E+00	1.73E-02
		Cs-137	<1.21E-02	0.00E+00	1.21E-02
		Be-7	9.59E-02	5.36E-02	1.86E-01
		K-40	<5.44E-01	0.00E+00	5.44E-01
242438	8/27/2012 - 9/4/2012	Beta	1.26E-02	1.15E-03	2.71E-03
		I-131	<7.33E-03	0.00E+00	7.33E-03
		Cs-134	<4.81E-03	0.00E+00	4.81E-03
		Cs-137	<7.56E-03	0.00E+00	7.56E-03
		Be-7	1.28E-01	2.11E-02	4.29E-02
		K-40	<1.87E-01	0.00E+00	1.87E-01
242965	9/4/2012 - 9/10/2012	Beta	1.60E-02	1.57E-03	3.88E-03
		I-131	<7.80E-03	0.00E+00	7.80E-03
		Cs-134	<1.07E-02	0.00E+00	1.07E-02
		Cs-137	<1.12E-02	0.00E+00	1.12E-02
		Be-7	9.85E-02	5.20E-02	8.60E-02



**MCGUIRE Radiological Environmental Monitoring Analysis Report - 2012 (Appendix E)**

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

Sample Point 121 [ INDICATOR - NE @ 0.47 miles ]

Sample ID:	Sample Dates:	Nuclide	Activity	1 Sigma Error	LLD
242965	9/4/2012 - 9/10/2012	K-40	<1.99E-01	0.00E+00	1.99E-01
243723	9/10/2012 - 9/17/2012	Beta	2.25E-02	1.50E-03	3.15E-03
		I-131	<2.11E-02	0.00E+00	2.11E-02
		Cs-134	<1.67E-02	0.00E+00	1.67E-02
		Cs-137	<1.98E-02	0.00E+00	1.98E-02
		Be-7	1.34E-01	6.30E-02	1.47E-01
		K-40	<4.08E-01	0.00E+00	4.08E-01
244128	9/17/2012 - 9/24/2012	Beta	2.18E-02	1.54E-03	3.33E-03
		I-131	<1.88E-02	0.00E+00	1.88E-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	1.50E-01	5.06E-02	1.62E-01
		K-40	<4.77E-01	0.00E+00	4.77E-01
245001	9/24/2012 - 10/1/2012	Beta	2.96E-02	1.63E-03	2.98E-03
		I-131	<1.72E-02	0.00E+00	1.72E-02
		Cs-134	<1.86E-02	0.00E+00	1.86E-02
		Cs-137	<1.92E-02	0.00E+00	1.92E-02
		Be-7	1.46E-01	6.39E-02	1.86E-01
		K-40	<2.71E-01	0.00E+00	2.71E-01
245821	10/1/2012 - 10/8/2012	Beta	2.66E-02	1.67E-03	3.50E-03
		I-131	<1.23E-02	0.00E+00	1.23E-02
		Cs-134	<2.08E-02	0.00E+00	2.08E-02
		Cs-137	<1.74E-02	0.00E+00	1.74E-02
		Be-7	1.43E-01	7.60E-02	1.30E-01
		K-40	<4.77E-01	0.00E+00	4.77E-01
246676	10/8/2012 - 10/15/2012	Beta	2.51E-02	1.54E-03	3.06E-03
		I-131	<6.29E-03	0.00E+00	6.29E-03
		Cs-134	<1.81E-03	0.00E+00	1.81E-03
		Cs-137	<5.91E-03	0.00E+00	5.91E-03
		Be-7	1.16E-01	2.82E-02	5.58E-02
		K-40	<2.23E-01	0.00E+00	2.23E-01
247084	10/15/2012 - 10/22/2012	Beta	2.99E-02	1.67E-03	3.10E-03
		I-131	<1.72E-02	0.00E+00	1.72E-02
		Cs-134	<2.44E-02	0.00E+00	2.44E-02
		Cs-137	<1.81E-02	0.00E+00	1.81E-02
		Be-7	2.37E-01	5.85E-02	1.14E-01
		K-40	<4.26E-01	0.00E+00	4.26E-01
247400	10/22/2012 - 10/29/2012	Beta	2.97E-02	1.67E-03	3.24E-03
		I-131	<1.74E-02	0.00E+00	1.74E-02
		Cs-134	<1.95E-02	0.00E+00	1.95E-02
		Cs-137	<2.29E-02	0.00E+00	2.29E-02
		Be-7	2.44E-01	4.98E-02	1.34E-01
		K-40	<4.97E-01	0.00E+00	4.97E-01
247738	10/29/2012 - 11/5/2012	Beta	2.04E-02	1.43E-03	2.94E-03
		I-131	<1.78E-02	0.00E+00	1.78E-02
		Cs-134	<2.17E-02	0.00E+00	2.17E-02
		Cs-137	<2.33E-02	0.00E+00	2.33E-02
		Be-7	1.80E-01	5.98E-02	1.51E-01
		K-40	<4.44E-01	0.00E+00	4.44E-01
247933	11/5/2012 - 11/12/2012	Beta	2.78E-02	1.58E-03	2.97E-03
		I-131	<1.44E-02	0.00E+00	1.44E-02
		Cs-134	<1.66E-02	0.00E+00	1.66E-02



# MCGUIRE Radiological Environmental Monitoring Analysis Report - 2012 (Appendix E)

Media Type: AIR PARTICULATE Concentration (Activity): pCi/m<sup>3</sup>

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

Sample ID:	Sample Dates:	Nuclide	Activity	1 Sigma Error	LLD
247933	11/5/2012 - 11/12/2012	Cs-137	<2.08E-02	0.00E+00	2.08E-02
		Be-7	2.06E-01	5.87E-02	1.28E-01
		K-40	<4.30E-01	0.00E+00	4.30E-01
248337	11/12/2012 - 11/19/2012	Beta	2.59E-02	1.57E-03	3.05E-03
		I-131	<1.58E-02	0.00E+00	1.58E-02
		Cs-134	<1.92E-02	0.00E+00	1.92E-02
		Cs-137	<1.98E-02	0.00E+00	1.98E-02
		Be-7	2.11E-01	5.59E-02	1.12E-01
		K-40	<4.52E-01	0.00E+00	4.52E-01
248616	11/19/2012 - 11/26/2012	Beta	3.24E-02	1.66E-03	2.79E-03
		I-131	<1.58E-02	0.00E+00	1.58E-02
		Cs-134	<1.47E-02	0.00E+00	1.47E-02
		Cs-137	<2.12E-02	0.00E+00	2.12E-02
		Be-7	2.33E-01	4.86E-02	1.10E-01
		K-40	<5.56E-01	0.00E+00	5.56E-01
248989	11/26/2012 - 12/3/2012	Beta	3.56E-02	1.77E-03	3.13E-03
		I-131	<1.69E-02	0.00E+00	1.69E-02
		Cs-134	<2.11E-02	0.00E+00	2.11E-02
		Cs-137	<2.32E-02	0.00E+00	2.32E-02
		Be-7	<2.59E-01	0.00E+00	2.59E-01
		K-40	<4.14E-01	0.00E+00	4.14E-01
249228	12/3/2012 - 12/10/2012	Beta	2.04E-02	1.42E-03	2.96E-03
		I-131	<1.35E-02	0.00E+00	1.35E-02
		Cs-134	<2.22E-02	0.00E+00	2.22E-02
		Cs-137	<2.38E-02	0.00E+00	2.38E-02
		Be-7	1.74E-01	5.64E-02	1.47E-01
		K-40	<3.78E-01	0.00E+00	3.78E-01
249426	12/10/2012 - 12/17/2012	Beta	2.25E-02	1.51E-03	3.07E-03
		I-131	<1.79E-02	0.00E+00	1.79E-02
		Cs-134	<1.84E-02	0.00E+00	1.84E-02
		Cs-137	<1.52E-02	0.00E+00	1.52E-02
		Be-7	1.10E-01	5.61E-02	1.86E-01
		K-40	<3.26E-01	0.00E+00	3.26E-01
249853	12/17/2012 - 12/24/2012	Beta	2.69E-02	1.58E-03	3.03E-03
		I-131	<1.70E-02	0.00E+00	1.70E-02
		Cs-134	<1.71E-02	0.00E+00	1.71E-02
		Cs-137	<2.56E-02	0.00E+00	2.56E-02
		Be-7	1.92E-01	5.79E-02	1.33E-01
		K-40	<4.16E-01	0.00E+00	4.16E-01
250160	12/24/2012 - 12/31/2012	Beta	1.89E-02	1.38E-03	2.91E-03
		I-131	<1.62E-02	0.00E+00	1.62E-02
		Cs-134	<2.32E-02	0.00E+00	2.32E-02
		Cs-137	<1.94E-02	0.00E+00	1.94E-02
		Be-7	<1.70E-01	0.00E+00	1.70E-01
		K-40	<4.42E-01	0.00E+00	4.42E-01

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

Sample ID:	Sample Dates:	Nuclide	Activity	1 Sigma Error	LLD
227162	1/3/2012 - 1/9/2012	Beta	2.21E-02	1.58E-03	3.25E-03
		I-131	<1.94E-02	0.00E+00	1.94E-02
		Cs-134	<1.66E-02	0.00E+00	1.66E-02
		Cs-137	<1.96E-02	0.00E+00	1.96E-02
		Be-7	<2.21E-01	0.00E+00	2.21E-01
		K-40	<4.37E-01	0.00E+00	4.37E-01



# MCGUIRE Radiological Environmental Monitoring Analysis Report - 2012 (Appendix E)

Media Type: AIR PARTICULATE Concentration (Activity): pCi/m<sup>3</sup>

Sample Point 125 [ INDICATOR - SW @ 0.38 miles ]

Sample ID:	Sample Dates:	Nuclide	Activity	1 Sigma Error	LLD
227295	1/9/2012 - 1/16/2012	Beta	1.81E-02	1.40E-03	3.01E-03
		I-131	<9.04E-03	0.00E+00	9.04E-03
		Cs-134	<7.65E-03	0.00E+00	7.65E-03
		Cs-137	<9.71E-03	0.00E+00	9.71E-03
		Be-7	1.29E-01	3.91E-02	6.38E-02
		K-40	<2.69E-01	0.00E+00	2.69E-01
227510	1/16/2012 - 1/23/2012	Beta	1.78E-02	1.36E-03	2.86E-03
		I-131	<6.34E-03	0.00E+00	6.34E-03
		Cs-134	<6.41E-03	0.00E+00	6.41E-03
		Cs-137	<8.96E-03	0.00E+00	8.96E-03
		Be-7	1.14E-01	2.98E-02	5.73E-02
		K-40	<1.56E-01	0.00E+00	1.56E-01
227832	1/23/2012 - 1/30/2012	Beta	1.65E-02	1.31E-03	2.81E-03
		I-131	<2.08E-02	0.00E+00	2.08E-02
		Cs-134	<2.14E-02	0.00E+00	2.14E-02
		Cs-137	<1.52E-02	0.00E+00	1.52E-02
		Be-7	1.20E-01	5.26E-02	1.50E-01
		K-40	<3.95E-01	0.00E+00	3.95E-01
228099	1/30/2012 - 2/6/2012	Beta	2.10E-02	1.40E-03	2.74E-03
		I-131	<1.18E-02	0.00E+00	1.18E-02
		Cs-134	<1.93E-02	0.00E+00	1.93E-02
		Cs-137	<1.73E-02	0.00E+00	1.73E-02
		Be-7	<2.12E-01	0.00E+00	2.12E-01
		K-40	<3.46E-01	0.00E+00	3.46E-01
229410	2/6/2012 - 2/13/2012	Beta	1.81E-02	1.44E-03	3.20E-03
		I-131	<6.60E-03	0.00E+00	6.60E-03
		Cs-134	<6.06E-03	0.00E+00	6.06E-03
		Cs-137	<6.79E-03	0.00E+00	6.79E-03
		Be-7	1.57E-01	2.43E-02	5.03E-02
		K-40	<1.69E-01	0.00E+00	1.69E-01
230036	2/13/2012 - 2/20/2012	Beta	1.57E-02	1.41E-03	3.39E-03
		I-131	<1.41E-02	0.00E+00	1.41E-02
		Cs-134	<1.97E-02	0.00E+00	1.97E-02
		Cs-137	<1.98E-02	0.00E+00	1.98E-02
		Be-7	1.02E-01	6.43E-02	1.61E-01
		K-40	<3.47E-01	0.00E+00	3.47E-01
230711	2/20/2012 - 2/27/2012	Beta	1.73E-02	1.38E-03	3.07E-03
		I-131	<1.70E-02	0.00E+00	1.70E-02
		Cs-134	<1.80E-02	0.00E+00	1.80E-02
		Cs-137	<2.49E-02	0.00E+00	2.49E-02
		Be-7	<2.05E-01	0.00E+00	2.05E-01
		K-40	<5.16E-01	0.00E+00	5.16E-01
230920	2/27/2012 - 3/5/2012	Beta	1.71E-02	1.37E-03	3.11E-03
		I-131	<6.93E-03	0.00E+00	6.93E-03
		Cs-134	<7.06E-03	0.00E+00	7.06E-03
		Cs-137	<6.42E-03	0.00E+00	6.42E-03
		Be-7	9.57E-02	3.75E-02	5.66E-02
		K-40	<1.71E-01	0.00E+00	1.71E-01
231630	3/5/2012 - 3/12/2012	Beta	1.67E-02	1.43E-03	3.34E-03
		I-131	<1.70E-02	0.00E+00	1.70E-02
		Cs-134	<1.86E-02	0.00E+00	1.86E-02
		Cs-137	<2.11E-02	0.00E+00	2.11E-02
		Be-7	1.81E-01	4.92E-02	1.25E-01





**MCGUIRE Radiological Environmental Monitoring Analysis Report - 2012 (Appendix E)**

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

Sample Point 125 [ INDICATOR - SW @ 0.38 miles ]

Sample ID:	Sample Dates:	Nuclide	Activity	1 Sigma Error	LLD
231630	3/5/2012 - 3/12/2012	K-40	<4.29E-01	0.00E+00	4.29E-01
232444	3/12/2012 - 3/19/2012	Beta	1.57E-02	1.33E-03	2.99E-03
		I-131	<7.34E-03	0.00E+00	7.34E-03
		Cs-134	<7.09E-03	0.00E+00	7.09E-03
		Cs-137	<9.65E-03	0.00E+00	9.65E-03
		Be-7	<1.11E-01	0.00E+00	1.11E-01
		K-40	<1.48E-01	0.00E+00	1.48E-01
233284	3/19/2012 - 3/26/2012	Beta	1.40E-02	1.30E-03	3.09E-03
		I-131	<5.29E-03	0.00E+00	5.29E-03
		Cs-134	<8.67E-03	0.00E+00	8.67E-03
		Cs-137	<1.20E-02	0.00E+00	1.20E-02
		Be-7	1.35E-01	3.28E-02	5.88E-02
		K-40	<2.01E-01	0.00E+00	2.01E-01
233525	3/26/2012 - 4/2/2012	Beta	2.05E-02	1.44E-03	3.07E-03
		I-131	<5.48E-03	0.00E+00	5.48E-03
		Cs-134	<4.76E-03	0.00E+00	4.76E-03
		Cs-137	<8.56E-03	0.00E+00	8.56E-03
		Be-7	2.14E-01	2.73E-02	4.57E-02
		K-40	8.81E-02	2.94E-02	2.65E-02
234443	4/2/2012 - 4/9/2012	Beta	1.98E-02	1.40E-03	2.75E-03
		I-131	<4.44E-03	0.00E+00	4.44E-03
		Cs-134	<6.18E-03	0.00E+00	6.18E-03
		Cs-137	<8.15E-03	0.00E+00	8.15E-03
		Be-7	2.05E-01	2.89E-02	5.19E-02
		K-40	<1.47E-01	0.00E+00	1.47E-01
234870	4/9/2012 - 4/16/2012	Beta	1.49E-02	1.38E-03	3.37E-03
		I-131	<8.66E-03	0.00E+00	8.66E-03
		Cs-134	<7.91E-03	0.00E+00	7.91E-03
		Cs-137	<1.24E-02	0.00E+00	1.24E-02
		Be-7	1.48E-01	3.50E-02	6.74E-02
		K-40	<2.07E-01	0.00E+00	2.07E-01
235193	4/16/2012 - 4/23/2012	Beta	1.57E-02	1.36E-03	3.19E-03
		I-131	<1.63E-02	0.00E+00	1.63E-02
		Cs-134	<2.07E-02	0.00E+00	2.07E-02
		Cs-137	<1.20E-02	0.00E+00	1.20E-02
		Be-7	<1.85E-01	0.00E+00	1.85E-01
		K-40	2.37E-01	8.39E-02	8.02E-02
235378	4/23/2012 - 4/30/2012	Beta	2.23E-02	1.47E-03	2.94E-03
		I-131	<7.36E-03	0.00E+00	7.36E-03
		Cs-134	<5.05E-03	0.00E+00	5.05E-03
		Cs-137	<9.82E-03	0.00E+00	9.82E-03
		Be-7	2.16E-01	4.02E-02	5.01E-02
		K-40	<4.25E-02	0.00E+00	4.25E-02
235716	4/30/2012 - 5/7/2012	Beta	1.40E-02	1.36E-03	3.31E-03
		I-131	<1.91E-02	0.00E+00	1.91E-02
		Cs-134	<2.11E-02	0.00E+00	2.11E-02
		Cs-137	<2.10E-02	0.00E+00	2.10E-02
		Be-7	2.09E-01	4.67E-02	2.82E-02
		K-40	<5.27E-01	0.00E+00	5.27E-01
235962	5/7/2012 - 5/14/2012	Beta	1.86E-02	1.40E-03	3.04E-03
		I-131	<6.52E-03	0.00E+00	6.52E-03
		Cs-134	<6.04E-03	0.00E+00	6.04E-03



**MCGUIRE Radiological Environmental Monitoring Analysis Report - 2012 (Appendix E)**

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

Sample Point 125 [ INDICATOR - SW @ 0.38 miles ]

Sample ID:	Sample Dates:	Nuclide	Activity	1 Sigma Error	LLD
235962	5/7/2012 - 5/14/2012	Cs-137	<8.95E-03	0.00E+00	8.95E-03
		Be-7	1.41E-01	4.18E-02	5.78E-02
		K-40	<2.18E-01	0.00E+00	2.18E-01
236172	5/14/2012 - 5/21/2012	Beta	1.47E-02	1.31E-03	2.99E-03
		I-131	<7.24E-03	0.00E+00	7.24E-03
		Cs-134	<8.68E-03	0.00E+00	8.68E-03
		Cs-137	<1.17E-02	0.00E+00	1.17E-02
		Be-7	2.36E-01	3.48E-02	7.76E-02
		K-40	<2.09E-01	0.00E+00	2.09E-01
236485	5/21/2012 - 5/29/2012	Beta	1.87E-02	1.29E-03	2.74E-03
		I-131	<1.37E-02	0.00E+00	1.37E-02
		Cs-134	<1.64E-02	0.00E+00	1.64E-02
		Cs-137	<1.78E-02	0.00E+00	1.78E-02
		Be-7	1.42E-01	4.44E-02	1.05E-01
		K-40	<2.74E-01	0.00E+00	2.74E-01
236784	5/29/2012 - 6/4/2012	Beta	2.07E-02	1.64E-03	3.55E-03
		I-131	<1.02E-02	0.00E+00	1.02E-02
		Cs-134	<1.45E-02	0.00E+00	1.45E-02
		Cs-137	<1.36E-02	0.00E+00	1.36E-02
		Be-7	1.20E-01	4.38E-02	8.82E-02
		K-40	<3.00E-01	0.00E+00	3.00E-01
237110	6/4/2012 - 6/11/2012	Beta	1.49E-02	1.33E-03	3.09E-03
		I-131	<6.74E-03	0.00E+00	6.74E-03
		Cs-134	<6.52E-03	0.00E+00	6.52E-03
		Cs-137	<7.76E-03	0.00E+00	7.76E-03
		Be-7	1.35E-01	2.64E-02	1.40E-02
		K-40	<2.53E-01	0.00E+00	2.53E-01
237285	6/11/2012 - 6/18/2012	Beta	1.17E-02	1.33E-03	3.36E-03
		I-131	<8.16E-03	0.00E+00	8.16E-03
		Cs-134	<8.38E-03	0.00E+00	8.38E-03
		Cs-137	<1.00E-02	0.00E+00	1.00E-02
		Be-7	1.20E-01	3.60E-02	7.43E-02
		K-40	1.64E-01	4.75E-02	1.09E-01
237961	6/18/2012 - 6/25/2012	Beta	2.22E-02	1.49E-03	3.06E-03
		I-131	<1.66E-02	0.00E+00	1.66E-02
		Cs-134	<1.98E-02	0.00E+00	1.98E-02
		Cs-137	<2.32E-02	0.00E+00	2.32E-02
		Be-7	1.31E-01	5.05E-02	9.23E-02
		K-40	<4.76E-01	0.00E+00	4.76E-01
238713	6/25/2012 - 7/2/2012	Beta	2.56E-02	1.60E-03	3.19E-03
		I-131	<1.49E-02	0.00E+00	1.49E-02
		Cs-134	<1.94E-02	0.00E+00	1.94E-02
		Cs-137	<2.30E-02	0.00E+00	2.30E-02
		Be-7	1.96E-01	5.84E-02	1.11E-01
		K-40	<3.48E-01	0.00E+00	3.48E-01
239090	7/2/2012 - 7/9/2012	Beta	2.92E-02	1.65E-03	3.14E-03
		I-131	<2.24E-02	0.00E+00	2.24E-02
		Cs-134	<2.46E-02	0.00E+00	2.46E-02
		Cs-137	<2.40E-02	0.00E+00	2.40E-02
		Be-7	1.54E-01	5.87E-02	1.61E-01
		K-40	<4.80E-01	0.00E+00	4.80E-01
239861	7/9/2012 - 7/16/2012	Nuclide	Activity	1 Sigma Error	LLD
		Beta	1.26E-02	1.28E-03	3.13E-03



**MCGUIRE Radiological Environmental Monitoring Analysis Report - 2012 (Appendix E)**

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

Sample Point 125 [ INDICATOR - SW @ 0.38 miles ]

Sample ID:	Sample Dates:	Nuclide	Activity	1 Sigma Error	LLD
239861	7/9/2012 - 7/16/2012	I-131	<5.79E-03	0.00E+00	5.79E-03
		Cs-134	<7.56E-03	0.00E+00	7.56E-03
		Cs-137	<8.22E-03	0.00E+00	8.22E-03
		Be-7	1.46E-01	2.65E-02	4.55E-02
		K-40	2.74E-01	5.00E-02	1.07E-01
239986	7/16/2012 - 7/23/2012	Beta	1.66E-02	1.33E-03	2.93E-03
		I-131	<7.67E-03	0.00E+00	7.67E-03
		Cs-134	<6.43E-03	0.00E+00	6.43E-03
		Cs-137	<1.03E-02	0.00E+00	1.03E-02
		Be-7	1.23E-01	2.59E-02	5.42E-02
240306	7/23/2012 - 7/30/2012	K-40	<2.25E-01	0.00E+00	2.25E-01
		Beta	2.09E-02	1.48E-03	3.11E-03
		I-131	<1.08E-02	0.00E+00	1.08E-02
		Cs-134	<8.39E-03	0.00E+00	8.39E-03
		Cs-137	<1.01E-02	0.00E+00	1.01E-02
240943	7/30/2012 - 8/6/2012	Be-7	1.85E-01	3.66E-02	6.25E-02
		K-40	<1.78E-01	0.00E+00	1.78E-01
		Beta	2.54E-02	1.57E-03	3.14E-03
		I-131	<6.83E-03	0.00E+00	6.83E-03
		Cs-134	<9.50E-03	0.00E+00	9.50E-03
241214	8/6/2012 - 8/13/2012	Cs-137	<8.70E-03	0.00E+00	8.70E-03
		Be-7	1.32E-01	2.72E-02	5.62E-02
		K-40	1.96E-01	5.84E-02	1.16E-01
		Beta	1.34E-02	1.26E-03	2.98E-03
		I-131	<7.28E-03	0.00E+00	7.28E-03
241521	8/13/2012 - 8/20/2012	Cs-134	<1.08E-02	0.00E+00	1.08E-02
		Cs-137	<1.18E-02	0.00E+00	1.18E-02
		Be-7	1.08E-01	3.47E-02	8.58E-02
		K-40	<2.61E-01	0.00E+00	2.61E-01
		Beta	2.83E-02	1.59E-03	2.97E-03
242110	8/20/2012 - 8/27/2012	I-131	<1.55E-02	0.00E+00	1.55E-02
		Cs-134	<1.44E-02	0.00E+00	1.44E-02
		Cs-137	<1.27E-02	0.00E+00	1.27E-02
		Be-7	1.89E-01	5.06E-02	1.16E-01
		K-40	<4.13E-01	0.00E+00	4.13E-01
242110	8/20/2012 - 8/27/2012	Beta	2.73E-02	1.67E-03	3.44E-03
		I-131	<1.83E-02	0.00E+00	1.83E-02
		Cs-134	<2.10E-02	0.00E+00	2.10E-02
		Cs-137	<1.84E-02	0.00E+00	1.84E-02
		Be-7	2.69E-01	5.27E-02	1.14E-01
242439	8/27/2012 - 9/4/2012	K-40	<4.05E-01	0.00E+00	4.05E-01
		Beta	1.23E-02	1.14E-03	2.70E-03
		I-131	<7.08E-03	0.00E+00	7.08E-03
		Cs-134	<5.61E-03	0.00E+00	5.61E-03
		Cs-137	<1.02E-02	0.00E+00	1.02E-02
242966	9/4/2012 - 9/10/2012	Be-7	8.84E-02	2.19E-02	3.07E-02
		K-40	<1.01E-01	0.00E+00	1.01E-01
		Beta	1.82E-02	1.62E-03	3.88E-03
		I-131	<8.78E-03	0.00E+00	8.78E-03
		Cs-134	<8.76E-03	0.00E+00	8.76E-03
242966	9/4/2012 - 9/10/2012	Cs-137	<1.15E-02	0.00E+00	1.15E-02
		Be-7	1.39E-01	3.23E-02	7.24E-02
		K-40	<1.94E-01	0.00E+00	1.94E-01
		Beta	1.82E-02	1.62E-03	3.88E-03
		I-131	<8.78E-03	0.00E+00	8.78E-03



**MCGUIRE Radiological Environmental Monitoring Analysis Report - 2012 (Appendix E)**

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

Sample Point 125 [ INDICATOR - SW @ 0.38 miles ]

Sample ID:	Sample Dates:	Nuclide	Activity	1 Sigma Error	LLD
243724	9/10/2012 - 9/17/2012	Beta	2.24E-02	1.50E-03	3.15E-03
		I-131	<9.90E-03	0.00E+00	9.90E-03
		Cs-134	<1.05E-02	0.00E+00	1.05E-02
		Cs-137	<1.04E-02	0.00E+00	1.04E-02
		Be-7	1.48E-01	3.42E-02	6.91E-02
		K-40	<2.40E-01	0.00E+00	2.40E-01
244129	9/17/2012 - 9/24/2012	Beta	2.02E-02	1.51E-03	3.33E-03
		I-131	<8.18E-03	0.00E+00	8.18E-03
		Cs-134	<9.34E-03	0.00E+00	9.34E-03
		Cs-137	<1.15E-02	0.00E+00	1.15E-02
		Be-7	1.15E-01	3.59E-02	6.64E-02
		K-40	2.80E-01	6.90E-02	1.29E-01
245002	9/24/2012 - 10/1/2012	Beta	2.76E-02	1.59E-03	2.98E-03
		I-131	<1.87E-02	0.00E+00	1.87E-02
		Cs-134	<1.68E-02	0.00E+00	1.68E-02
		Cs-137	<1.98E-02	0.00E+00	1.98E-02
		Be-7	1.71E-01	4.14E-02	1.31E-01
		K-40	<4.12E-01	0.00E+00	4.12E-01
245822	10/1/2012 - 10/8/2012	Beta	2.30E-02	1.59E-03	3.50E-03
		I-131	<1.86E-02	0.00E+00	1.86E-02
		Cs-134	<1.90E-02	0.00E+00	1.90E-02
		Cs-137	<1.76E-02	0.00E+00	1.76E-02
		Be-7	<2.14E-01	0.00E+00	2.14E-01
		K-40	<4.64E-01	0.00E+00	4.64E-01
246677	10/8/2012 - 10/15/2012	Beta	2.52E-02	1.54E-03	3.07E-03
		I-131	<1.96E-02	0.00E+00	1.96E-02
		Cs-134	<1.38E-02	0.00E+00	1.38E-02
		Cs-137	<2.37E-02	0.00E+00	2.37E-02
		Be-7	1.81E-01	5.94E-02	1.63E-01
		K-40	<3.78E-01	0.00E+00	3.78E-01
247085	10/15/2012 - 10/22/2012	Beta	2.58E-02	1.58E-03	3.09E-03
		I-131	<2.17E-02	0.00E+00	2.17E-02
		Cs-134	<1.75E-02	0.00E+00	1.75E-02
		Cs-137	<1.32E-02	0.00E+00	1.32E-02
		Be-7	9.55E-02	3.92E-02	1.24E-01
		K-40	<5.12E-01	0.00E+00	5.12E-01
247401	10/22/2012 - 10/29/2012	Beta	2.77E-02	1.64E-03	3.24E-03
		I-131	<1.68E-02	0.00E+00	1.68E-02
		Cs-134	<1.79E-02	0.00E+00	1.79E-02
		Cs-137	<2.37E-02	0.00E+00	2.37E-02
		Be-7	<1.91E-01	0.00E+00	1.91E-01
		K-40	<4.69E-01	0.00E+00	4.69E-01
247739	10/29/2012 - 11/5/2012	Beta	1.78E-02	1.36E-03	2.91E-03
		I-131	<1.29E-02	0.00E+00	1.29E-02
		Cs-134	<2.10E-02	0.00E+00	2.10E-02
		Cs-137	<2.27E-02	0.00E+00	2.27E-02
		Be-7	<2.24E-01	0.00E+00	2.24E-01
		K-40	2.35E-01	8.30E-02	3.07E-01
247934	11/5/2012 - 11/12/2012	Beta	2.88E-02	1.60E-03	3.00E-03
		I-131	<1.28E-02	0.00E+00	1.28E-02
		Cs-134	<1.60E-02	0.00E+00	1.60E-02
		Cs-137	<2.08E-02	0.00E+00	2.08E-02
		Be-7	1.50E-01	6.24E-02	1.48E-01



**MCGUIRE Radiological Environmental Monitoring Analysis Report - 2012 (Appendix E)**

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

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

Sample ID:	Sample Dates:	Nuclide	Activity	1 Sigma Error	LLD
247934	11/5/2012 - 11/12/2012	K-40	<3.47E-01	0.00E+00	3.47E-01
248338	11/12/2012 - 11/19/2012	Beta	2.87E-02	1.64E-03	3.06E-03
		I-131	<1.96E-02	0.00E+00	1.96E-02
		Cs-134	<2.14E-02	0.00E+00	2.14E-02
		Cs-137	<1.78E-02	0.00E+00	1.78E-02
		Be-7	1.14E-01	3.44E-02	1.12E-01
		K-40	<5.67E-01	0.00E+00	5.67E-01
248617	11/19/2012 - 11/26/2012	Beta	2.95E-02	1.59E-03	2.79E-03
		I-131	<1.70E-02	0.00E+00	1.70E-02
		Cs-134	<1.63E-02	0.00E+00	1.63E-02
		Cs-137	<2.28E-02	0.00E+00	2.28E-02
		Be-7	1.27E-01	4.53E-02	1.40E-01
		K-40	<4.91E-01	0.00E+00	4.91E-01
248990	11/26/2012 - 12/3/2012	Beta	3.64E-02	1.78E-03	3.13E-03
		I-131	<1.66E-02	0.00E+00	1.66E-02
		Cs-134	<1.52E-02	0.00E+00	1.52E-02
		Cs-137	<2.42E-02	0.00E+00	2.42E-02
		Be-7	<2.16E-01	0.00E+00	2.16E-01
		K-40	<4.67E-01	0.00E+00	4.67E-01
249229	12/3/2012 - 12/10/2012	Beta	2.28E-02	1.47E-03	2.95E-03
		I-131	<1.71E-02	0.00E+00	1.71E-02
		Cs-134	<2.14E-02	0.00E+00	2.14E-02
		Cs-137	<1.28E-02	0.00E+00	1.28E-02
		Be-7	1.08E-01	4.23E-02	1.41E-01
		K-40	<4.56E-01	0.00E+00	4.56E-01
249427	12/10/2012 - 12/17/2012	Beta	2.53E-02	1.57E-03	3.07E-03
		I-131	<1.38E-02	0.00E+00	1.38E-02
		Cs-134	<1.76E-02	0.00E+00	1.76E-02
		Cs-137	<1.94E-02	0.00E+00	1.94E-02
		Be-7	1.25E-01	3.61E-02	1.33E-01
		K-40	<4.55E-01	0.00E+00	4.55E-01
249854	12/17/2012 - 12/24/2012	Beta	2.63E-02	1.57E-03	3.03E-03
		I-131	<1.33E-02	0.00E+00	1.33E-02
		Cs-134	<1.80E-02	0.00E+00	1.80E-02
		Cs-137	<2.24E-02	0.00E+00	2.24E-02
		Be-7	<2.05E-01	0.00E+00	2.05E-01
		K-40	<4.07E-01	0.00E+00	4.07E-01
250161	12/24/2012 - 12/31/2012	Beta	2.01E-02	1.41E-03	2.91E-03
		I-131	<1.81E-02	0.00E+00	1.81E-02
		Cs-134	<3.68E-03	0.00E+00	3.68E-03
		Cs-137	<1.64E-02	0.00E+00	1.64E-02
		Be-7	1.07E-01	4.01E-02	1.13E-01
		K-40	<5.11E-01	0.00E+00	5.11E-01

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

Sample ID:	Sample Dates:	Nuclide	Activity	1 Sigma Error	LLD
227163	1/3/2012 - 1/9/2012	Beta	2.23E-02	1.60E-03	3.30E-03
		I-131	<8.73E-03	0.00E+00	8.73E-03
		Cs-134	<1.17E-02	0.00E+00	1.17E-02
		Cs-137	<1.28E-02	0.00E+00	1.28E-02
		Be-7	1.27E-01	3.14E-02	7.76E-02
		K-40	<2.38E-01	0.00E+00	2.38E-01
227296	1/9/2012 - 1/16/2012	Beta	1.65E-02	1.35E-03	2.97E-03
		I-131	<1.40E-02	0.00E+00	1.40E-02



**MCGUIRE Radiological Environmental Monitoring Analysis Report - 2012 (Appendix E)**

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

Sample Point 133 [ INDICATOR - ENE @ 6.23 miles ]

Sample ID:	Sample Dates:	Nuclide	Activity	1 Sigma Error	LLD
227296	1/9/2012 - 1/16/2012	Cs-134	<1.47E-02	0.00E+00	1.47E-02
		Cs-137	<1.55E-02	0.00E+00	1.55E-02
		Be-7	8.13E-02	4.81E-02	1.76E-01
		K-40	<4.48E-01	0.00E+00	4.48E-01
227511	1/16/2012 - 1/23/2012	Beta	1.62E-02	1.32E-03	2.86E-03
		I-131	<7.71E-03	0.00E+00	7.71E-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	1.51E-01	2.85E-02	5.59E-02
		K-40	<1.78E-01	0.00E+00	1.78E-01
227833	1/23/2012 - 1/30/2012	Beta	1.42E-02	1.25E-03	2.81E-03
		I-131	<1.71E-02	0.00E+00	1.71E-02
		Cs-134	<2.03E-02	0.00E+00	2.03E-02
		Cs-137	<2.18E-02	0.00E+00	2.18E-02
		Be-7	<1.95E-01	0.00E+00	1.95E-01
		K-40	<4.17E-01	0.00E+00	4.17E-01
228100	1/30/2012 - 2/6/2012	Beta	1.81E-02	1.34E-03	2.78E-03
		I-131	<1.32E-02	0.00E+00	1.32E-02
		Cs-134	<1.35E-02	0.00E+00	1.35E-02
		Cs-137	<1.92E-02	0.00E+00	1.92E-02
		Be-7	2.27E-01	5.50E-02	1.44E-01
		K-40	2.34E-01	8.26E-02	3.74E-01
229411	2/6/2012 - 2/13/2012	Beta	1.68E-02	1.40E-03	3.16E-03
		I-131	<6.75E-03	0.00E+00	6.75E-03
		Cs-134	<8.81E-03	0.00E+00	8.81E-03
		Cs-137	<8.66E-03	0.00E+00	8.66E-03
		Be-7	1.29E-01	3.56E-02	6.34E-02
		K-40	9.52E-02	6.34E-02	1.30E-01
230037	2/13/2012 - 2/20/2012	Beta	1.69E-02	1.43E-03	3.38E-03
		I-131	<4.88E-03	0.00E+00	4.88E-03
		Cs-134	<6.08E-03	0.00E+00	6.08E-03
		Cs-137	<8.56E-03	0.00E+00	8.56E-03
		Be-7	1.45E-01	3.31E-02	3.72E-02
		K-40	1.52E-01	3.91E-02	7.50E-02
230712	2/20/2012 - 2/27/2012	Beta	1.66E-02	1.36E-03	3.07E-03
		I-131	<2.01E-02	0.00E+00	2.01E-02
		Cs-134	<1.99E-02	0.00E+00	1.99E-02
		Cs-137	<1.82E-02	0.00E+00	1.82E-02
		Be-7	1.07E-01	5.12E-02	1.42E-01
		K-40	<4.45E-01	0.00E+00	4.45E-01
230921	2/27/2012 - 3/5/2012	Beta	1.60E-02	1.36E-03	3.15E-03
		I-131	<7.16E-03	0.00E+00	7.16E-03
		Cs-134	<4.10E-03	0.00E+00	4.10E-03
		Cs-137	<1.14E-02	0.00E+00	1.14E-02
		Be-7	2.26E-01	3.49E-02	4.82E-02
		K-40	<1.84E-01	0.00E+00	1.84E-01
231631	3/5/2012 - 3/12/2012	Beta	1.55E-02	1.39E-03	3.30E-03
		I-131	<8.36E-03	0.00E+00	8.36E-03
		Cs-134	<6.30E-03	0.00E+00	6.30E-03
		Cs-137	<8.24E-03	0.00E+00	8.24E-03
		Be-7	1.80E-01	4.60E-02	9.00E-02
		K-40	<1.94E-01	0.00E+00	1.94E-01



**MCGUIRE Radiological Environmental Monitoring Analysis Report - 2012 (Appendix E)**

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

Sample Point 133 [ INDICATOR - ENE @ 6.23 miles ]

Sample ID:	Sample Dates:	Nuclide	Activity	1 Sigma Error	LLD
232445	3/12/2012 - 3/19/2012	Beta	1.47E-02	1.30E-03	3.00E-03
		I-131	<1.34E-02	0.00E+00	1.34E-02
		Cs-134	<3.75E-03	0.00E+00	3.75E-03
		Cs-137	<1.58E-02	0.00E+00	1.58E-02
		Be-7	1.05E-01	6.52E-02	1.48E-01
		K-40	<5.61E-01	0.00E+00	5.61E-01
233285	3/19/2012 - 3/26/2012	Beta	1.31E-02	1.27E-03	3.05E-03
		I-131	<5.83E-03	0.00E+00	5.83E-03
		Cs-134	<5.46E-03	0.00E+00	5.46E-03
		Cs-137	<7.62E-03	0.00E+00	7.62E-03
		Be-7	9.35E-02	4.27E-02	4.37E-02
		K-40	2.08E-01	6.56E-02	1.24E-01
233526	3/26/2012 - 4/2/2012	Beta	1.84E-02	1.43E-03	3.16E-03
		I-131	<7.90E-03	0.00E+00	7.90E-03
		Cs-134	<8.16E-03	0.00E+00	8.16E-03
		Cs-137	<1.21E-02	0.00E+00	1.21E-02
		Be-7	1.75E-01	5.04E-02	7.00E-02
		K-40	<1.92E-01	0.00E+00	1.92E-01
234444	4/2/2012 - 4/9/2012	Beta	1.82E-02	1.35E-03	2.69E-03
		I-131	<7.55E-03	0.00E+00	7.55E-03
		Cs-134	<8.76E-03	0.00E+00	8.76E-03
		Cs-137	<9.32E-03	0.00E+00	9.32E-03
		Be-7	1.95E-01	4.17E-02	6.96E-02
		K-40	<2.24E-01	0.00E+00	2.24E-01
234871	4/9/2012 - 4/16/2012	Beta	1.53E-02	1.40E-03	3.38E-03
		I-131	<4.92E-03	0.00E+00	4.92E-03
		Cs-134	<8.25E-03	0.00E+00	8.25E-03
		Cs-137	<1.00E-02	0.00E+00	1.00E-02
		Be-7	1.38E-01	2.99E-02	6.63E-02
		K-40	<1.80E-01	0.00E+00	1.80E-01
235194	4/16/2012 - 4/23/2012	Beta	1.54E-02	1.35E-03	3.18E-03
		I-131	<6.55E-03	0.00E+00	6.55E-03
		Cs-134	<7.48E-03	0.00E+00	7.48E-03
		Cs-137	<6.73E-03	0.00E+00	6.73E-03
		Be-7	9.98E-02	2.70E-02	6.33E-02
		K-40	<2.09E-01	0.00E+00	2.09E-01
235379	4/23/2012 - 4/30/2012	Beta	2.00E-02	1.43E-03	2.96E-03
		I-131	<6.20E-03	0.00E+00	6.20E-03
		Cs-134	<7.41E-03	0.00E+00	7.41E-03
		Cs-137	<7.27E-03	0.00E+00	7.27E-03
		Be-7	2.23E-01	2.94E-02	4.49E-02
		K-40	<2.51E-01	0.00E+00	2.51E-01
235717	4/30/2012 - 5/7/2012	Beta	1.72E-02	1.42E-03	3.27E-03
		I-131	<8.74E-03	0.00E+00	8.74E-03
		Cs-134	<9.65E-03	0.00E+00	9.65E-03
		Cs-137	<1.35E-02	0.00E+00	1.35E-02
		Be-7	2.36E-01	4.37E-02	7.74E-02
		K-40	<2.60E-01	0.00E+00	2.60E-01
235963	5/7/2012 - 5/14/2012	Beta	1.38E-02	1.29E-03	3.05E-03
		I-131	<8.43E-03	0.00E+00	8.43E-03
		Cs-134	<9.48E-03	0.00E+00	9.48E-03
		Cs-137	<1.16E-02	0.00E+00	1.16E-02
		Be-7	1.13E-01	2.91E-02	4.11E-02



# MCGUIRE Radiological Environmental Monitoring Analysis Report - 2012 (Appendix E)

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

Sample Point 133 [ INDICATOR - ENE @ 6.23 miles ]

Sample ID:	Sample Dates:	Nuclide	Activity	1 Sigma Error	LLD
235963	5/7/2012 - 5/14/2012	K-40	<1.89E-01	0.00E+00	1.89E-01
236173	5/14/2012 - 5/21/2012	Beta	1.63E-02	1.40E-03	3.16E-03
		I-131	<6.93E-03	0.00E+00	6.93E-03
		Cs-134	<8.40E-03	0.00E+00	8.40E-03
		Cs-137	<5.81E-03	0.00E+00	5.81E-03
		Be-7	1.60E-01	2.83E-02	5.38E-02
		K-40	2.42E-01	4.93E-02	7.67E-02
236486	5/21/2012 - 5/29/2012	Beta	1.70E-02	1.25E-03	2.75E-03
		I-131	<1.45E-02	0.00E+00	1.45E-02
		Cs-134	<1.56E-02	0.00E+00	1.56E-02
		Cs-137	<1.83E-02	0.00E+00	1.83E-02
		Be-7	1.64E-01	5.52E-02	1.23E-01
		K-40	<3.33E-01	0.00E+00	3.33E-01
236785	5/29/2012 - 6/4/2012	Beta	2.03E-02	1.62E-03	3.55E-03
		I-131	<8.73E-03	0.00E+00	8.73E-03
		Cs-134	<7.24E-03	0.00E+00	7.24E-03
		Cs-137	<1.38E-02	0.00E+00	1.38E-02
		Be-7	1.61E-01	3.56E-02	7.54E-02
		K-40	<2.09E-01	0.00E+00	2.09E-01
237111	6/4/2012 - 6/11/2012	Beta	1.76E-02	1.39E-03	3.09E-03
		I-131	<7.21E-03	0.00E+00	7.21E-03
		Cs-134	<7.82E-03	0.00E+00	7.82E-03
		Cs-137	<9.25E-03	0.00E+00	9.25E-03
		Be-7	1.31E-01	3.11E-02	6.43E-02
		K-40	<1.99E-01	0.00E+00	1.99E-01
237286	6/11/2012 - 6/18/2012	Beta	1.29E-02	1.26E-03	3.03E-03
		I-131	<1.35E-02	0.00E+00	1.35E-02
		Cs-134	<1.94E-02	0.00E+00	1.94E-02
		Cs-137	<1.94E-02	0.00E+00	1.94E-02
		Be-7	1.86E-01	5.79E-02	1.84E-01
		K-40	<3.82E-01	0.00E+00	3.82E-01
237962	6/18/2012 - 6/25/2012	Beta	2.43E-02	1.54E-03	3.08E-03
		I-131	<6.87E-03	0.00E+00	6.87E-03
		Cs-134	<6.57E-03	0.00E+00	6.57E-03
		Cs-137	<1.05E-02	0.00E+00	1.05E-02
		Be-7	1.39E-01	3.76E-02	6.54E-02
		K-40	1.04E-01	3.28E-02	2.80E-02
238714	6/25/2012 - 7/2/2012	Beta	2.75E-02	1.62E-03	3.15E-03
		I-131	<2.10E-02	0.00E+00	2.10E-02
		Cs-134	<1.68E-02	0.00E+00	1.68E-02
		Cs-137	<1.96E-02	0.00E+00	1.96E-02
		Be-7	1.62E-01	5.12E-02	8.81E-02
		K-40	<3.24E-01	0.00E+00	3.24E-01
239091	7/2/2012 - 7/9/2012	Beta	2.78E-02	1.63E-03	3.14E-03
		I-131	<1.45E-02	0.00E+00	1.45E-02
		Cs-134	<2.02E-02	0.00E+00	2.02E-02
		Cs-137	<2.14E-02	0.00E+00	2.14E-02
		Be-7	1.79E-01	5.75E-02	1.43E-01
		K-40	<3.91E-01	0.00E+00	3.91E-01
239862	7/9/2012 - 7/16/2012	Beta	1.05E-02	1.22E-03	3.12E-03
		I-131	<5.64E-03	0.00E+00	5.64E-03
		Cs-134	<6.88E-03	0.00E+00	6.88E-03





**MCGUIRE Radiological Environmental Monitoring Analysis Report - 2012 (Appendix E)**

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

Sample Point 133 [ INDICATOR - ENE @ 6.23 miles ]

Sample ID:	Sample Dates:	Nuclide	Activity	1 Sigma Error	LLD
239862	7/9/2012 - 7/16/2012	Cs-137	<9.62E-03	0.00E+00	9.62E-03
		Be-7	1.11E-01	3.77E-02	5.33E-02
		K-40	2.41E-01	4.92E-02	7.15E-02
239987	7/16/2012 - 7/23/2012	Beta	1.63E-02	1.33E-03	2.97E-03
		I-131	<8.80E-03	0.00E+00	8.80E-03
		Cs-134	<9.25E-03	0.00E+00	9.25E-03
		Cs-137	<9.39E-03	0.00E+00	9.39E-03
		Be-7	1.43E-01	3.47E-02	6.17E-02
		K-40	<1.84E-01	0.00E+00	1.84E-01
240307	7/23/2012 - 7/30/2012	Beta	1.95E-02	1.43E-03	3.07E-03
		I-131	<1.70E-02	0.00E+00	1.70E-02
		Cs-134	<1.32E-02	0.00E+00	1.32E-02
		Cs-137	<1.98E-02	0.00E+00	1.98E-02
		Be-7	1.44E-01	6.36E-02	1.86E-01
		K-40	<4.22E-01	0.00E+00	4.22E-01
240944	7/30/2012 - 8/6/2012	Beta	2.62E-02	1.58E-03	3.13E-03
		I-131	<4.31E-03	0.00E+00	4.31E-03
		Cs-134	<7.83E-03	0.00E+00	7.83E-03
		Cs-137	<9.12E-03	0.00E+00	9.12E-03
		Be-7	1.43E-01	2.49E-02	4.24E-02
		K-40	<2.40E-01	0.00E+00	2.40E-01
241215	8/6/2012 - 8/13/2012	Beta	1.06E-02	1.19E-03	2.98E-03
		I-131	<7.97E-03	0.00E+00	7.97E-03
		Cs-134	<3.60E-03	0.00E+00	3.60E-03
		Cs-137	<7.98E-03	0.00E+00	7.98E-03
		Be-7	1.71E-01	2.89E-02	6.08E-02
		K-40	<2.05E-01	0.00E+00	2.05E-01
241522	8/13/2012 - 8/20/2012	Beta	2.94E-02	1.63E-03	3.01E-03
		I-131	<1.56E-02	0.00E+00	1.56E-02
		Cs-134	<2.65E-02	0.00E+00	2.65E-02
		Cs-137	<1.27E-02	0.00E+00	1.27E-02
		Be-7	2.02E-01	4.51E-02	1.79E-01
		K-40	<4.88E-01	0.00E+00	4.88E-01
242111	8/20/2012 - 8/27/2012	Beta	2.67E-02	1.64E-03	3.39E-03
		I-131	<1.78E-02	0.00E+00	1.78E-02
		Cs-134	<1.93E-02	0.00E+00	1.93E-02
		Cs-137	<1.92E-02	0.00E+00	1.92E-02
		Be-7	1.41E-01	6.82E-02	1.53E-01
		K-40	<4.94E-01	0.00E+00	4.94E-01
242440	8/27/2012 - 9/4/2012	Beta	1.14E-02	1.12E-03	2.70E-03
		I-131	<6.70E-03	0.00E+00	6.70E-03
		Cs-134	<8.68E-03	0.00E+00	8.68E-03
		Cs-137	<1.18E-02	0.00E+00	1.18E-02
		Be-7	1.16E-01	3.53E-02	6.17E-02
		K-40	<2.14E-01	0.00E+00	2.14E-01
242967	9/4/2012 - 9/10/2012	Beta	1.75E-02	1.60E-03	3.87E-03
		I-131	<1.94E-02	0.00E+00	1.94E-02
		Cs-134	<1.57E-02	0.00E+00	1.57E-02
		Cs-137	<2.03E-02	0.00E+00	2.03E-02
		Be-7	<2.15E-01	0.00E+00	2.15E-01
		K-40	<6.46E-01	0.00E+00	6.46E-01
243725	9/10/2012 - 9/17/2012	Nuclide	Activity	1 Sigma Error	LLD
		Beta	2.23E-02	1.51E-03	3.19E-03



**MCGUIRE Radiological Environmental Monitoring Analysis Report - 2012 (Appendix E)**

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

Sample Point 133 [ INDICATOR - ENE @ 6.23 miles ]

Sample ID:	Sample Dates:	Nuclide	Activity	1 Sigma Error	LLD
243725	9/10/2012 - 9/17/2012	I-131	<5.29E-03	0.00E+00	5.29E-03
		Cs-134	<6.35E-03	0.00E+00	6.35E-03
		Cs-137	<7.62E-03	0.00E+00	7.62E-03
		Be-7	1.35E-01	3.12E-02	5.69E-02
		K-40	<4.70E-02	0.00E+00	4.70E-02
244130	9/17/2012 - 9/24/2012	Beta	1.78E-02	1.44E-03	3.29E-03
		I-131	<1.46E-02	0.00E+00	1.46E-02
		Cs-134	<2.33E-02	0.00E+00	2.33E-02
		Cs-137	<2.03E-02	0.00E+00	2.03E-02
		Be-7	1.81E-01	5.10E-02	2.16E-01
245003	9/24/2012 - 10/1/2012	K-40	<3.19E-01	0.00E+00	3.19E-01
		Beta	2.67E-02	1.58E-03	3.00E-03
		I-131	<1.69E-02	0.00E+00	1.69E-02
		Cs-134	<1.47E-02	0.00E+00	1.47E-02
		Cs-137	<2.20E-02	0.00E+00	2.20E-02
245823	10/1/2012 - 10/8/2012	Be-7	2.13E-01	4.64E-02	8.80E-02
		K-40	<4.15E-01	0.00E+00	4.15E-01
		Beta	2.41E-02	1.61E-03	3.47E-03
		I-131	<6.56E-03	0.00E+00	6.56E-03
		Cs-134	<8.47E-03	0.00E+00	8.47E-03
246678	10/8/2012 - 10/15/2012	Cs-137	<1.02E-02	0.00E+00	1.02E-02
		Be-7	2.02E-01	4.34E-02	4.52E-02
		K-40	2.62E-01	5.34E-02	1.13E-01
		Beta	2.25E-02	1.50E-03	3.11E-03
		I-131	<1.49E-02	0.00E+00	1.49E-02
247086	10/15/2012 - 10/22/2012	Cs-134	<1.72E-02	0.00E+00	1.72E-02
		Cs-137	<2.06E-02	0.00E+00	2.06E-02
		Be-7	1.17E-01	5.17E-02	1.60E-01
		K-40	<4.11E-01	0.00E+00	4.11E-01
		Beta	2.63E-02	1.58E-03	3.05E-03
247402	10/22/2012 - 10/29/2012	I-131	<1.79E-02	0.00E+00	1.79E-02
		Cs-134	<2.07E-02	0.00E+00	2.07E-02
		Cs-137	<2.43E-02	0.00E+00	2.43E-02
		Be-7	1.74E-01	5.07E-02	8.81E-02
		K-40	<4.20E-01	0.00E+00	4.20E-01
247740	10/29/2012 - 11/5/2012	Beta	2.98E-02	1.68E-03	3.24E-03
		I-131	<1.40E-02	0.00E+00	1.40E-02
		Cs-134	<1.79E-02	0.00E+00	1.79E-02
		Cs-137	<2.29E-02	0.00E+00	2.29E-02
		Be-7	1.76E-01	6.02E-02	1.25E-01
247935	11/5/2012 - 11/12/2012	K-40	<3.61E-01	0.00E+00	3.61E-01
		Beta	1.94E-02	1.39E-03	2.90E-03
		I-131	<1.70E-02	0.00E+00	1.70E-02
		Cs-134	<1.67E-02	0.00E+00	1.67E-02
		Cs-137	<1.98E-02	0.00E+00	1.98E-02
247935	11/5/2012 - 11/12/2012	Be-7	<2.44E-01	0.00E+00	2.44E-01
		K-40	<3.84E-01	0.00E+00	3.84E-01
		Beta	2.96E-02	1.63E-03	3.03E-03
		I-131	<2.08E-02	0.00E+00	2.08E-02
		Cs-134	<1.13E-02	0.00E+00	1.13E-02
247935	11/5/2012 - 11/12/2012	Cs-137	<1.49E-02	0.00E+00	1.49E-02
		Be-7	1.87E-01	5.37E-02	1.74E-01
		K-40	<3.83E-01	0.00E+00	3.83E-01
		Beta	2.96E-02	1.63E-03	3.03E-03
		I-131	<2.08E-02	0.00E+00	2.08E-02



# MCGUIRE Radiological Environmental Monitoring Analysis Report - 2012 (Appendix E)

Media Type: AIR PARTICULATE Concentration (Activity): pCi/m<sup>3</sup>

Sample Point 133 [ INDICATOR - ENE @ 6.23 miles ]

Sample ID:	Sample Dates:	Nuclide	Activity	1 Sigma Error	LLD
248339	11/12/2012 - 11/19/2012	Beta	2.82E-02	1.62E-03	3.03E-03
		I-131	<1.81E-02	0.00E+00	1.81E-02
		Cs-134	<1.96E-02	0.00E+00	1.96E-02
		Cs-137	<2.45E-02	0.00E+00	2.45E-02
		Be-7	1.04E-01	4.02E-02	1.54E-01
		K-40	<4.21E-01	0.00E+00	4.21E-01
248618	11/19/2012 - 11/26/2012	Beta	2.99E-02	1.60E-03	2.79E-03
		I-131	<1.52E-02	0.00E+00	1.52E-02
		Cs-134	<1.78E-02	0.00E+00	1.78E-02
		Cs-137	<1.74E-02	0.00E+00	1.74E-02
		Be-7	2.03E-01	7.51E-02	1.66E-01
		K-40	<3.17E-01	0.00E+00	3.17E-01
248991	11/26/2012 - 12/3/2012	Beta	3.07E-02	1.68E-03	3.13E-03
		I-131	<1.56E-02	0.00E+00	1.56E-02
		Cs-134	<2.08E-02	0.00E+00	2.08E-02
		Cs-137	<1.30E-02	0.00E+00	1.30E-02
		Be-7	1.51E-01	4.75E-02	1.45E-01
		K-40	<3.86E-01	0.00E+00	3.86E-01
249230	12/3/2012 - 12/10/2012	Beta	1.92E-02	1.41E-03	3.00E-03
		I-131	<1.24E-02	0.00E+00	1.24E-02
		Cs-134	<2.26E-02	0.00E+00	2.26E-02
		Cs-137	<1.49E-02	0.00E+00	1.49E-02
		Be-7	2.20E-01	5.47E-02	1.10E-01
		K-40	<3.84E-01	0.00E+00	3.84E-01
249428	12/10/2012 - 12/17/2012	Beta	2.32E-02	1.51E-03	3.02E-03
		I-131	<1.76E-02	0.00E+00	1.76E-02
		Cs-134	<1.74E-02	0.00E+00	1.74E-02
		Cs-137	<2.30E-02	0.00E+00	2.30E-02
		Be-7	<2.32E-01	0.00E+00	2.32E-01
		K-40	<4.47E-01	0.00E+00	4.47E-01
249855	12/17/2012 - 12/24/2012	Beta	2.53E-02	1.55E-03	3.03E-03
		I-131	<1.83E-02	0.00E+00	1.83E-02
		Cs-134	<2.05E-02	0.00E+00	2.05E-02
		Cs-137	<2.04E-02	0.00E+00	2.04E-02
		Be-7	1.89E-01	5.22E-02	1.33E-01
		K-40	<3.55E-01	0.00E+00	3.55E-01
250162	12/24/2012 - 12/31/2012	Beta	1.84E-02	1.37E-03	2.91E-03
		I-131	<1.97E-02	0.00E+00	1.97E-02
		Cs-134	<1.64E-02	0.00E+00	1.64E-02
		Cs-137	<2.11E-02	0.00E+00	2.11E-02
		Be-7	<1.72E-01	0.00E+00	1.72E-01
		K-40	<4.14E-01	0.00E+00	4.14E-01

Sample Point 195 [ INDICATOR - N @ 0.19 miles ]

Sample ID:	Sample Dates:	Nuclide	Activity	1 Sigma Error	LLD
227165	1/3/2012 - 1/9/2012	Beta	2.34E-02	1.61E-03	3.25E-03
		I-131	<2.16E-02	0.00E+00	2.16E-02
		Cs-134	<1.81E-02	0.00E+00	1.81E-02
		Cs-137	<1.96E-02	0.00E+00	1.96E-02
		Be-7	2.02E-01	6.51E-02	1.25E-01
		K-40	<4.36E-01	0.00E+00	4.36E-01
227298	1/9/2012 - 1/16/2012	Beta	2.25E-02	1.50E-03	3.02E-03
		I-131	<8.25E-03	0.00E+00	8.25E-03
		Cs-134	<9.40E-03	0.00E+00	9.40E-03
		Cs-137	<7.23E-03	0.00E+00	7.23E-03



**MCGUIRE Radiological Environmental Monitoring Analysis Report - 2012 (Appendix E)**

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

Sample Point 195 [ INDICATOR - N @ 0.19 miles ]

Sample ID:	Sample Dates:	Nuclide	Activity	1 Sigma Error	LLD
227298	1/9/2012 - 1/16/2012	Be-7	1.05E-01	3.21E-02	5.32E-02
		K-40	2.08E-01	4.64E-02	9.37E-02
227513	1/16/2012 - 1/23/2012	Beta	2.11E-02	1.44E-03	2.87E-03
		I-131	<5.73E-03	0.00E+00	5.73E-03
		Cs-134	<5.56E-03	0.00E+00	5.56E-03
		Cs-137	<1.08E-02	0.00E+00	1.08E-02
		Be-7	9.27E-02	3.06E-02	7.32E-02
		K-40	<2.87E-01	0.00E+00	2.87E-01
227835	1/23/2012 - 1/30/2012	Beta	1.40E-02	1.25E-03	2.81E-03
		I-131	<1.27E-02	0.00E+00	1.27E-02
		Cs-134	<1.46E-02	0.00E+00	1.46E-02
		Cs-137	<1.82E-02	0.00E+00	1.82E-02
		Be-7	9.27E-02	5.90E-02	1.50E-01
		K-40	<4.86E-01	0.00E+00	4.86E-01
228102	1/30/2012 - 2/6/2012	Beta	1.99E-02	1.37E-03	2.73E-03
		I-131	<9.58E-03	0.00E+00	9.58E-03
		Cs-134	<1.73E-02	0.00E+00	1.73E-02
		Cs-137	<1.50E-02	0.00E+00	1.50E-02
		Be-7	1.69E-01	5.30E-02	1.38E-01
		K-40	<4.31E-01	0.00E+00	4.31E-01
229413	2/6/2012 - 2/13/2012	Beta	1.96E-02	1.48E-03	3.21E-03
		I-131	<9.17E-03	0.00E+00	9.17E-03
		Cs-134	<9.41E-03	0.00E+00	9.41E-03
		Cs-137	<1.10E-02	0.00E+00	1.10E-02
		Be-7	1.53E-01	3.21E-02	6.20E-02
		K-40	<2.08E-01	0.00E+00	2.08E-01
230039	2/13/2012 - 2/20/2012	Beta	1.56E-02	1.41E-03	3.38E-03
		I-131	<8.36E-03	0.00E+00	8.36E-03
		Cs-134	<8.19E-03	0.00E+00	8.19E-03
		Cs-137	<1.05E-02	0.00E+00	1.05E-02
		Be-7	1.45E-01	4.23E-02	5.48E-02
		K-40	2.93E-01	5.45E-02	1.06E-01
230714	2/20/2012 - 2/27/2012	Beta	1.54E-02	1.33E-03	3.07E-03
		I-131	<1.47E-02	0.00E+00	1.47E-02
		Cs-134	<2.00E-02	0.00E+00	2.00E-02
		Cs-137	<2.34E-02	0.00E+00	2.34E-02
		Be-7	7.06E-02	4.69E-02	1.51E-01
		K-40	<5.16E-01	0.00E+00	5.16E-01
230923	2/27/2012 - 3/5/2012	Beta	1.74E-02	1.38E-03	3.10E-03
		I-131	<1.79E-02	0.00E+00	1.79E-02
		Cs-134	<1.88E-02	0.00E+00	1.88E-02
		Cs-137	<2.10E-02	0.00E+00	2.10E-02
		Be-7	1.92E-01	4.40E-02	1.08E-01
		K-40	<4.46E-01	0.00E+00	4.46E-01
231633	3/5/2012 - 3/12/2012	Beta	1.57E-02	1.41E-03	3.35E-03
		I-131	<5.48E-03	0.00E+00	5.48E-03
		Cs-134	<6.55E-03	0.00E+00	6.55E-03
		Cs-137	<6.56E-03	0.00E+00	6.56E-03
		Be-7	1.84E-01	2.68E-02	3.31E-02
		K-40	<1.63E-01	0.00E+00	1.63E-01
232447	3/12/2012 - 3/19/2012	Beta	1.41E-02	1.28E-03	2.99E-03
		I-131	<6.34E-03	0.00E+00	6.34E-03



**MCGUIRE Radiological Environmental Monitoring Analysis Report - 2012 (Appendix E)**

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

Sample Point 195 [ INDICATOR - N @ 0.19 miles ]

Sample ID:	Sample Dates:	Nuclide	Activity	1 Sigma Error	LLD
232447	3/12/2012 - 3/19/2012	Cs-134	<8.37E-03	0.00E+00	8.37E-03
		Cs-137	<9.42E-03	0.00E+00	9.42E-03
		Be-7	1.23E-01	3.67E-02	6.62E-02
		K-40	<2.65E-01	0.00E+00	2.65E-01
		Beta	1.38E-02	1.29E-03	3.07E-03
233287	3/19/2012 - 3/26/2012	I-131	<4.34E-03	0.00E+00	4.34E-03
		Cs-134	<3.75E-03	0.00E+00	3.75E-03
		Cs-137	<7.80E-03	0.00E+00	7.80E-03
		Be-7	1.59E-01	3.14E-02	4.78E-02
		K-40	2.58E-01	5.76E-02	9.75E-02
233528	3/26/2012 - 4/2/2012	Beta	1.70E-02	1.35E-03	3.04E-03
		I-131	<5.25E-03	0.00E+00	5.25E-03
		Cs-134	<4.76E-03	0.00E+00	4.76E-03
		Cs-137	<7.94E-03	0.00E+00	7.94E-03
		Be-7	2.03E-01	3.52E-02	6.00E-02
234446	4/2/2012 - 4/9/2012	K-40	2.24E-01	4.68E-02	1.23E-01
		Beta	1.87E-02	1.37E-03	2.74E-03
		I-131	<5.54E-03	0.00E+00	5.54E-03
		Cs-134	<8.28E-03	0.00E+00	8.28E-03
		Cs-137	<6.72E-03	0.00E+00	6.72E-03
234873	4/9/2012 - 4/16/2012	Be-7	1.18E-01	4.00E-02	6.86E-02
		K-40	1.82E-01	5.48E-02	1.17E-01
		Beta	1.77E-02	1.45E-03	3.36E-03
		I-131	<1.64E-02	0.00E+00	1.64E-02
		Cs-134	<1.95E-02	0.00E+00	1.95E-02
235196	4/16/2012 - 4/23/2012	Cs-137	<1.97E-02	0.00E+00	1.97E-02
		Be-7	1.86E-01	6.41E-02	1.69E-01
		K-40	<4.20E-01	0.00E+00	4.20E-01
		Beta	1.44E-02	1.33E-03	3.18E-03
		I-131	<6.69E-03	0.00E+00	6.69E-03
235381	4/23/2012 - 4/30/2012	Cs-134	<5.96E-03	0.00E+00	5.96E-03
		Cs-137	<6.30E-03	0.00E+00	6.30E-03
		Be-7	5.89E-02	3.23E-02	5.70E-02
		K-40	<2.44E-01	0.00E+00	2.44E-01
		Beta	2.34E-02	1.49E-03	2.93E-03
235719	4/30/2012 - 5/7/2012	I-131	<5.83E-03	0.00E+00	5.83E-03
		Cs-134	<6.24E-03	0.00E+00	6.24E-03
		Cs-137	<6.08E-03	0.00E+00	6.08E-03
		Be-7	1.99E-01	3.29E-02	5.26E-02
		K-40	2.00E-01	5.91E-02	9.80E-02
235965	5/7/2012 - 5/14/2012	Beta	1.55E-02	1.39E-03	3.32E-03
		I-131	<6.80E-03	0.00E+00	6.80E-03
		Cs-134	<8.61E-03	0.00E+00	8.61E-03
		Cs-137	<6.59E-03	0.00E+00	6.59E-03
		Be-7	1.92E-01	2.99E-02	4.83E-02
		K-40	<2.47E-01	0.00E+00	2.47E-01
		Beta	1.45E-02	1.30E-03	3.03E-03
		I-131	<7.72E-03	0.00E+00	7.72E-03
		Cs-134	<5.45E-03	0.00E+00	5.45E-03
		Cs-137	<1.16E-02	0.00E+00	1.16E-02
		Be-7	1.86E-01	3.92E-02	6.96E-02
		K-40	<2.08E-01	0.00E+00	2.08E-01



# MCGUIRE Radiological Environmental Monitoring Analysis Report - 2012 (Appendix E)

Media Type: AIR PARTICULATE Concentration (Activity): pCi/m<sup>3</sup>

Sample Point 195 [ INDICATOR - N @ 0.19 miles ]

Sample ID:	Sample Dates:	Nuclide	Activity	1 Sigma Error	LLD
236175	5/14/2012 - 5/21/2012	Beta	1.85E-02	1.40E-03	2.98E-03
		I-131	<6.08E-03	0.00E+00	6.08E-03
		Cs-134	<5.55E-03	0.00E+00	5.55E-03
		Cs-137	<8.75E-03	0.00E+00	8.75E-03
		Be-7	1.84E-01	3.71E-02	5.59E-02
		K-40	2.49E-01	5.71E-02	1.13E-01
236488	5/21/2012 - 5/29/2012	Beta	1.95E-02	1.31E-03	2.74E-03
		I-131	<1.11E-02	0.00E+00	1.11E-02
		Cs-134	<1.42E-02	0.00E+00	1.42E-02
		Cs-137	<1.51E-02	0.00E+00	1.51E-02
		Be-7	1.74E-01	6.12E-02	1.45E-01
		K-40	<3.33E-01	0.00E+00	3.33E-01
236787	5/29/2012 - 6/4/2012	Beta	1.94E-02	1.61E-03	3.56E-03
		I-131	<9.46E-03	0.00E+00	9.46E-03
		Cs-134	<9.04E-03	0.00E+00	9.04E-03
		Cs-137	<6.45E-03	0.00E+00	6.45E-03
		Be-7	1.85E-01	3.85E-02	7.04E-02
		K-40	<2.29E-01	0.00E+00	2.29E-01
237113	6/4/2012 - 6/11/2012	Beta	1.59E-02	1.35E-03	3.09E-03
		I-131	<1.45E-02	0.00E+00	1.45E-02
		Cs-134	<1.92E-02	0.00E+00	1.92E-02
		Cs-137	<1.22E-02	0.00E+00	1.22E-02
		Be-7	1.30E-01	4.50E-02	1.43E-01
		K-40	<5.22E-01	0.00E+00	5.22E-01
237288	6/11/2012 - 6/18/2012	Beta	1.45E-02	1.30E-03	3.02E-03
		I-131	<7.61E-03	0.00E+00	7.61E-03
		Cs-134	<9.36E-03	0.00E+00	9.36E-03
		Cs-137	<7.90E-03	0.00E+00	7.90E-03
		Be-7	1.71E-01	3.30E-02	6.15E-02
		K-40	<2.06E-01	0.00E+00	2.06E-01
237964	6/18/2012 - 6/25/2012	Beta	2.17E-02	1.47E-03	3.03E-03
		I-131	<7.53E-03	0.00E+00	7.53E-03
		Cs-134	<6.56E-03	0.00E+00	6.56E-03
		Cs-137	<8.75E-03	0.00E+00	8.75E-03
		Be-7	1.51E-01	3.11E-02	5.16E-02
		K-40	<1.31E-01	0.00E+00	1.31E-01
238716	6/25/2012 - 7/2/2012	Beta	2.33E-02	1.55E-03	3.20E-03
		I-131	<1.40E-02	0.00E+00	1.40E-02
		Cs-134	<1.95E-02	0.00E+00	1.95E-02
		Cs-137	<2.47E-02	0.00E+00	2.47E-02
		Be-7	<2.51E-01	0.00E+00	2.51E-01
		K-40	<3.29E-01	0.00E+00	3.29E-01
239093	7/2/2012 - 7/9/2012	Beta	2.96E-02	1.66E-03	3.14E-03
		I-131	<1.79E-02	0.00E+00	1.79E-02
		Cs-134	<1.39E-02	0.00E+00	1.39E-02
		Cs-137	<2.10E-02	0.00E+00	2.10E-02
		Be-7	2.49E-01	5.55E-02	1.52E-01
		K-40	<3.91E-01	0.00E+00	3.91E-01
239864	7/9/2012 - 7/16/2012	Beta	1.44E-02	1.32E-03	3.12E-03
		I-131	<8.37E-03	0.00E+00	8.37E-03
		Cs-134	<7.19E-03	0.00E+00	7.19E-03
		Cs-137	<1.44E-02	0.00E+00	1.44E-02
		Be-7	1.42E-01	3.03E-02	5.92E-02



**MCGUIRE Radiological Environmental Monitoring Analysis Report - 2012 (Appendix E)**

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

Sample Point 195 [ INDICATOR - N @ 0.19 miles ]

Sample ID:	Sample Dates:	Nuclide	Activity	1 Sigma Error	LLD
239864	7/9/2012 - 7/16/2012	K-40	<1.71E-01	0.00E+00	1.71E-01
239989	7/16/2012 - 7/23/2012	Beta	1.64E-02	1.32E-03	2.93E-03
		I-131	<7.01E-03	0.00E+00	7.01E-03
		Cs-134	<5.02E-03	0.00E+00	5.02E-03
		Cs-137	<1.20E-02	0.00E+00	1.20E-02
		Be-7	9.42E-02	2.39E-02	6.76E-02
		K-40	<1.66E-01	0.00E+00	1.66E-01
240309	7/23/2012 - 7/30/2012	Beta	2.11E-02	1.48E-03	3.11E-03
		I-131	<6.00E-03	0.00E+00	6.00E-03
		Cs-134	<7.30E-03	0.00E+00	7.30E-03
		Cs-137	<9.40E-03	0.00E+00	9.40E-03
		Be-7	1.66E-01	3.24E-02	6.11E-02
		K-40	3.18E-01	5.46E-02	1.10E-01
240946	7/30/2012 - 8/6/2012	Beta	2.38E-02	1.54E-03	3.13E-03
		I-131	<4.74E-03	0.00E+00	4.74E-03
		Cs-134	<5.26E-03	0.00E+00	5.26E-03
		Cs-137	<8.55E-03	0.00E+00	8.55E-03
		Be-7	1.21E-01	2.67E-02	4.66E-02
		K-40	<1.74E-01	0.00E+00	1.74E-01
241217	8/6/2012 - 8/13/2012	Beta	1.43E-02	1.29E-03	2.98E-03
		I-131	<1.58E-02	0.00E+00	1.58E-02
		Cs-134	<1.52E-02	0.00E+00	1.52E-02
		Cs-137	<2.55E-02	0.00E+00	2.55E-02
		Be-7	1.43E-01	7.09E-02	1.65E-01
		K-40	<3.54E-01	0.00E+00	3.54E-01
241524	8/13/2012 - 8/20/2012	Beta	2.89E-02	1.60E-03	2.96E-03
		I-131	<1.46E-02	0.00E+00	1.46E-02
		Cs-134	<1.24E-02	0.00E+00	1.24E-02
		Cs-137	<1.47E-02	0.00E+00	1.47E-02
		Be-7	2.32E-01	5.62E-02	1.24E-01
		K-40	<4.45E-01	0.00E+00	4.45E-01
242113	8/20/2012 - 8/27/2012	Beta	2.56E-02	1.64E-03	3.44E-03
		I-131	<2.11E-02	0.00E+00	2.11E-02
		Cs-134	<1.84E-02	0.00E+00	1.84E-02
		Cs-137	<1.87E-02	0.00E+00	1.87E-02
		Be-7	<1.72E-01	0.00E+00	1.72E-01
		K-40	<5.24E-01	0.00E+00	5.24E-01
242442	8/27/2012 - 9/4/2012	Beta	1.32E-02	1.16E-03	2.71E-03
		I-131	<1.84E-02	0.00E+00	1.84E-02
		Cs-134	<1.44E-02	0.00E+00	1.44E-02
		Cs-137	<2.07E-02	0.00E+00	2.07E-02
		Be-7	<1.70E-01	0.00E+00	1.70E-01
		K-40	<4.76E-01	0.00E+00	4.76E-01
242969	9/4/2012 - 9/10/2012	Beta	1.70E-02	1.59E-03	3.88E-03
		I-131	<7.45E-03	0.00E+00	7.45E-03
		Cs-134	<6.28E-03	0.00E+00	6.28E-03
		Cs-137	<1.16E-02	0.00E+00	1.16E-02
		Be-7	1.19E-01	3.30E-02	7.90E-02
		K-40	<3.12E-01	0.00E+00	3.12E-01
243727	9/10/2012 - 9/17/2012	Beta	2.51E-02	1.55E-03	3.14E-03
		I-131	<5.10E-03	0.00E+00	5.10E-03
		Cs-134	<4.81E-03	0.00E+00	4.81E-03



# MCGUIRE Radiological Environmental Monitoring Analysis Report - 2012 (Appendix E)

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

Sample Point 195 [ INDICATOR - N @ 0.19 miles ]

Sample ID:	Sample Dates:	Nuclide	Activity	1 Sigma Error	LLD
243727	9/10/2012 - 9/17/2012	Cs-137	<1.10E-02	0.00E+00	1.10E-02
		Be-7	1.28E-01	3.39E-02	5.92E-02
		K-40	<2.54E-01	0.00E+00	2.54E-01
244132	9/17/2012 - 9/24/2012	Beta	1.70E-02	1.43E-03	3.34E-03
		I-131	<8.66E-03	0.00E+00	8.66E-03
		Cs-134	<8.21E-03	0.00E+00	8.21E-03
		Cs-137	<9.32E-03	0.00E+00	9.32E-03
		Be-7	2.09E-01	3.98E-02	6.42E-02
		K-40	<2.39E-01	0.00E+00	2.39E-01
245005	9/24/2012 - 10/1/2012	Beta	2.69E-02	1.58E-03	2.97E-03
		I-131	<1.74E-02	0.00E+00	1.74E-02
		Cs-134	<1.46E-02	0.00E+00	1.46E-02
		Cs-137	<1.79E-02	0.00E+00	1.79E-02
		Be-7	1.70E-01	4.80E-02	1.09E-01
		K-40	<4.75E-01	0.00E+00	4.75E-01
245825	10/1/2012 - 10/8/2012	Beta	2.44E-02	1.62E-03	3.51E-03
		I-131	<7.49E-03	0.00E+00	7.49E-03
		Cs-134	<8.29E-03	0.00E+00	8.29E-03
		Cs-137	<1.31E-02	0.00E+00	1.31E-02
		Be-7	1.69E-01	3.46E-02	6.46E-02
		K-40	<2.08E-01	0.00E+00	2.08E-01
246680	10/8/2012 - 10/15/2012	Beta	2.50E-02	1.54E-03	3.06E-03
		I-131	<6.16E-03	0.00E+00	6.16E-03
		Cs-134	<6.23E-03	0.00E+00	6.23E-03
		Cs-137	<7.14E-03	0.00E+00	7.14E-03
		Be-7	2.01E-01	3.14E-02	3.78E-02
		K-40	<1.58E-01	0.00E+00	1.58E-01
247088	10/15/2012 - 10/22/2012	Beta	2.74E-02	1.62E-03	3.10E-03
		I-131	<1.79E-02	0.00E+00	1.79E-02
		Cs-134	<1.84E-02	0.00E+00	1.84E-02
		Cs-137	<1.79E-02	0.00E+00	1.79E-02
		Be-7	<1.59E-01	0.00E+00	1.59E-01
		K-40	2.46E-01	1.18E-01	2.20E-01
247404	10/22/2012 - 10/29/2012	Beta	2.96E-02	1.67E-03	3.23E-03
		I-131	<1.10E-02	0.00E+00	1.10E-02
		Cs-134	<1.92E-02	0.00E+00	1.92E-02
		Cs-137	<2.15E-02	0.00E+00	2.15E-02
		Be-7	<2.10E-01	0.00E+00	2.10E-01
		K-40	<4.44E-01	0.00E+00	4.44E-01
247742	10/29/2012 - 11/5/2012	Beta	1.83E-02	1.37E-03	2.90E-03
		I-131	<1.66E-02	0.00E+00	1.66E-02
		Cs-134	<1.92E-02	0.00E+00	1.92E-02
		Cs-137	<2.20E-02	0.00E+00	2.20E-02
		Be-7	<2.25E-01	0.00E+00	2.25E-01
		K-40	<2.72E-01	0.00E+00	2.72E-01
247937	11/5/2012 - 11/12/2012	Beta	2.95E-02	1.61E-03	2.97E-03
		I-131	<1.44E-02	0.00E+00	1.44E-02
		Cs-134	<2.18E-02	0.00E+00	2.18E-02
		Cs-137	<1.81E-02	0.00E+00	1.81E-02
		Be-7	2.49E-01	5.52E-02	1.42E-01
		K-40	<3.44E-01	0.00E+00	3.44E-01
248341	11/12/2012 - 11/19/2012	Beta	2.65E-02	1.60E-03	3.08E-03





**MCGUIRE Radiological Environmental Monitoring Analysis Report - 2012 (Appendix E)**

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

Sample Point 195 [ INDICATOR - N @ 0.19 miles ]

Sample ID:	Sample Dates:	Nuclide	Activity	1 Sigma Error	LLD
248341	11/12/2012 - 11/19/2012	I-131	<1.59E-02	0.00E+00	1.59E-02
		Cs-134	<1.86E-02	0.00E+00	1.86E-02
		Cs-137	<1.99E-02	0.00E+00	1.99E-02
		Be-7	<1.90E-01	0.00E+00	1.90E-01
		K-40	<4.56E-01	0.00E+00	4.56E-01
248620	11/19/2012 - 11/26/2012	Beta	3.50E-02	1.71E-03	2.79E-03
		I-131	<2.06E-02	0.00E+00	2.06E-02
		Cs-134	<1.95E-02	0.00E+00	1.95E-02
		Cs-137	<2.16E-02	0.00E+00	2.16E-02
		Be-7	2.59E-01	6.43E-02	1.40E-01
248993	11/26/2012 - 12/3/2012	K-40	<4.16E-01	0.00E+00	4.16E-01
		Beta	3.61E-02	1.77E-03	3.13E-03
		I-131	<1.43E-02	0.00E+00	1.43E-02
		Cs-134	<1.64E-02	0.00E+00	1.64E-02
		Cs-137	<1.93E-02	0.00E+00	1.93E-02
249232	12/3/2012 - 12/10/2012	Be-7	1.41E-01	5.15E-02	1.34E-01
		K-40	<4.89E-01	0.00E+00	4.89E-01
		Beta	2.28E-02	1.47E-03	2.95E-03
		I-131	<1.10E-02	0.00E+00	1.10E-02
		Cs-134	<1.23E-02	0.00E+00	1.23E-02
249430	12/10/2012 - 12/17/2012	Cs-137	<1.20E-02	0.00E+00	1.20E-02
		Be-7	<2.24E-01	0.00E+00	2.24E-01
		K-40	<4.31E-01	0.00E+00	4.31E-01
		Cs-134	<1.37E-02	0.00E+00	1.37E-02
		Cs-137	<2.28E-02	0.00E+00	2.28E-02
249857	12/17/2012 - 12/24/2012	Be-7	<2.24E-01	0.00E+00	2.24E-01
		K-40	<4.28E-01	0.00E+00	4.28E-01
		Beta	2.63E-02	1.57E-03	3.02E-03
		I-131	<1.72E-02	0.00E+00	1.72E-02
		Cs-134	<2.04E-02	0.00E+00	2.04E-02
250164	12/24/2012 - 12/31/2012	Cs-137	<1.62E-02	0.00E+00	1.62E-02
		Be-7	1.51E-01	5.61E-02	1.49E-01
		K-40	<4.16E-01	0.00E+00	4.16E-01
		Cs-134	<1.52E-02	0.00E+00	1.52E-02
		Cs-137	<2.17E-02	0.00E+00	2.17E-02

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

Sample Point 102 [ CONTROL - WNW @ 9.89 miles ]

Sample ID:	Sample Dates:	Nuclide	Activity	1 Sigma Error	LLD
227166	1/3/2012 - 1/9/2012	I-131	<9.01E-03	0.00E+00	9.01E-03
		Cs-134	<9.41E-03	0.00E+00	9.41E-03
		Cs-137	<6.92E-03	0.00E+00	6.92E-03
		Be-7	<8.08E-02	0.00E+00	8.08E-02
		K-40	7.67E-01	1.02E-01	9.85E-02
227299	1/9/2012 - 1/16/2012	Beta	1.74E-02	1.35E-03	2.91E-03
		I-131	<1.39E-02	0.00E+00	1.39E-02
		Cs-134	<1.52E-02	0.00E+00	1.52E-02
		Cs-137	<2.17E-02	0.00E+00	2.17E-02
		Be-7	<1.80E-01	0.00E+00	1.80E-01
227166	1/3/2012 - 1/9/2012	K-40	<4.42E-01	0.00E+00	4.42E-01
		Beta	2.72E-02	1.61E-03	3.08E-03
		I-131	<1.63E-02	0.00E+00	1.63E-02
		Cs-134	<1.37E-02	0.00E+00	1.37E-02
		Cs-137	<2.28E-02	0.00E+00	2.28E-02
249857	12/17/2012 - 12/24/2012	Be-7	<2.24E-01	0.00E+00	2.24E-01
		K-40	<4.28E-01	0.00E+00	4.28E-01
		Beta	2.63E-02	1.57E-03	3.02E-03
		I-131	<1.72E-02	0.00E+00	1.72E-02
		Cs-134	<2.04E-02	0.00E+00	2.04E-02
250164	12/24/2012 - 12/31/2012	Cs-137	<1.62E-02	0.00E+00	1.62E-02
		Be-7	1.51E-01	5.61E-02	1.49E-01
		K-40	<4.16E-01	0.00E+00	4.16E-01
		Cs-134	<1.52E-02	0.00E+00	1.52E-02
		Cs-137	<2.17E-02	0.00E+00	2.17E-02



# MCGUIRE Radiological Environmental Monitoring Analysis Report - 2012 (Appendix E)

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

Sample Point 102 [ CONTROL - WNW @ 9.89 miles ]

Sample ID:	Sample Dates:	Nuclide	Activity	1 Sigma Error	LLD
227514	1/16/2012 - 1/23/2012	I-131	<6.84E-03	0.00E+00	6.84E-03
		Cs-134	<8.66E-03	0.00E+00	8.66E-03
		Cs-137	<1.10E-02	0.00E+00	1.10E-02
		Be-7	<6.63E-02	0.00E+00	6.63E-02
		K-40	5.40E-01	9.72E-02	1.08E-01
227836	1/23/2012 - 1/30/2012	I-131	<1.04E-02	0.00E+00	1.04E-02
		Cs-134	<1.04E-02	0.00E+00	1.04E-02
		Cs-137	<1.21E-02	0.00E+00	1.21E-02
		Be-7	<1.02E-01	0.00E+00	1.02E-01
		K-40	4.03E-01	1.14E-01	1.89E-01
228103	1/30/2012 - 2/6/2012	I-131	<1.05E-02	0.00E+00	1.05E-02
		Cs-134	<1.21E-02	0.00E+00	1.21E-02
		Cs-137	<1.78E-02	0.00E+00	1.78E-02
		Be-7	<1.10E-01	0.00E+00	1.10E-01
		K-40	4.36E-01	1.00E-01	1.63E-01
229414	2/6/2012 - 2/13/2012	I-131	<8.82E-03	0.00E+00	8.82E-03
		Cs-134	<1.11E-02	0.00E+00	1.11E-02
		Cs-137	<1.46E-02	0.00E+00	1.46E-02
		Be-7	<7.72E-02	0.00E+00	7.72E-02
		K-40	2.90E-01	7.49E-02	5.22E-02
230040	2/13/2012 - 2/20/2012	I-131	<8.17E-03	0.00E+00	8.17E-03
		Cs-134	<1.01E-02	0.00E+00	1.01E-02
		Cs-137	<1.25E-02	0.00E+00	1.25E-02
		Be-7	<8.84E-02	0.00E+00	8.84E-02
		K-40	5.09E-01	8.25E-02	3.62E-02
230715	2/20/2012 - 2/27/2012	I-131	<8.68E-03	0.00E+00	8.68E-03
		Cs-134	<7.37E-03	0.00E+00	7.37E-03
		Cs-137	<1.23E-02	0.00E+00	1.23E-02
		Be-7	<6.49E-02	0.00E+00	6.49E-02
		K-40	7.42E-01	9.35E-02	8.85E-02
230924	2/27/2012 - 3/5/2012	I-131	<9.79E-03	0.00E+00	9.79E-03
		Cs-134	<5.08E-03	0.00E+00	5.08E-03
		Cs-137	<9.08E-03	0.00E+00	9.08E-03
		Be-7	<7.54E-02	0.00E+00	7.54E-02
		K-40	5.05E-01	8.51E-02	8.99E-02
231634	3/5/2012 - 3/12/2012	I-131	<7.88E-03	0.00E+00	7.88E-03
		Cs-134	<1.13E-02	0.00E+00	1.13E-02
		Cs-137	<9.16E-03	0.00E+00	9.16E-03
		Be-7	<7.20E-02	0.00E+00	7.20E-02
		K-40	4.39E-01	7.64E-02	1.40E-01
232448	3/12/2012 - 3/19/2012	I-131	<6.38E-03	0.00E+00	6.38E-03
		Cs-134	<7.47E-03	0.00E+00	7.47E-03
		Cs-137	<8.69E-03	0.00E+00	8.69E-03
		Be-7	<5.99E-02	0.00E+00	5.99E-02
		K-40	5.09E-01	7.77E-02	8.44E-02
233288	3/19/2012 - 3/26/2012	I-131	<1.24E-02	0.00E+00	1.24E-02
		Cs-134	<1.17E-02	0.00E+00	1.17E-02
		Cs-137	<1.54E-02	0.00E+00	1.54E-02
		Be-7	<1.08E-01	0.00E+00	1.08E-01
		K-40	3.88E-01	9.42E-02	6.18E-02
233529	3/26/2012 - 4/2/2012	I-131	<8.53E-03	0.00E+00	8.53E-03



**MCGUIRE Radiological Environmental Monitoring Analysis Report - 2012 (Appendix E)**

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

Sample Point 102 [ CONTROL - WNW @ 9.89 miles ]

Sample ID:	Sample Dates:	Nuclide	Activity	1 Sigma Error	LLD
233529	3/26/2012 - 4/2/2012	Cs-134	<9.77E-03	0.00E+00	9.77E-03
		Cs-137	<1.06E-02	0.00E+00	1.06E-02
		Be-7	<5.90E-02	0.00E+00	5.90E-02
		K-40	6.10E-01	9.91E-02	1.34E-01
234447	4/2/2012 - 4/9/2012	I-131	<4.85E-03	0.00E+00	4.85E-03
		Cs-134	<5.83E-03	0.00E+00	5.83E-03
		Cs-137	<6.33E-03	0.00E+00	6.33E-03
		Be-7	<4.31E-02	0.00E+00	4.31E-02
		K-40	6.37E-01	6.13E-02	1.60E-02
234874	4/9/2012 - 4/16/2012	I-131	<6.43E-03	0.00E+00	6.43E-03
		Cs-134	<8.70E-03	0.00E+00	8.70E-03
		Cs-137	<9.73E-03	0.00E+00	9.73E-03
		Be-7	<6.75E-02	0.00E+00	6.75E-02
		K-40	4.64E-01	7.44E-02	8.58E-02
235197	4/16/2012 - 4/23/2012	I-131	<8.87E-03	0.00E+00	8.87E-03
		Cs-134	<9.60E-03	0.00E+00	9.60E-03
		Cs-137	<1.45E-02	0.00E+00	1.45E-02
		Be-7	<5.36E-02	0.00E+00	5.36E-02
		K-40	3.08E-01	7.70E-02	1.79E-01
235382	4/23/2012 - 4/30/2012	I-131	<8.10E-03	0.00E+00	8.10E-03
		Cs-134	<8.22E-03	0.00E+00	8.22E-03
		Cs-137	<1.08E-02	0.00E+00	1.08E-02
		Be-7	<8.83E-02	0.00E+00	8.83E-02
		K-40	5.33E-01	8.78E-02	1.12E-01
235720	4/30/2012 - 5/7/2012	I-131	<1.04E-02	0.00E+00	1.04E-02
		Cs-134	<1.26E-02	0.00E+00	1.26E-02
		Cs-137	<1.54E-02	0.00E+00	1.54E-02
		Be-7	<9.27E-02	0.00E+00	9.27E-02
		K-40	2.50E-01	6.94E-02	5.21E-02
235966	5/7/2012 - 5/14/2012	I-131	<9.56E-03	0.00E+00	9.56E-03
		Cs-134	<1.11E-02	0.00E+00	1.11E-02
		Cs-137	<1.09E-02	0.00E+00	1.09E-02
		Be-7	<8.85E-02	0.00E+00	8.85E-02
		K-40	6.73E-01	9.33E-02	1.17E-01
236176	5/14/2012 - 5/21/2012	I-131	<1.13E-02	0.00E+00	1.13E-02
		Cs-134	<1.51E-02	0.00E+00	1.51E-02
		Cs-137	<1.76E-02	0.00E+00	1.76E-02
		Be-7	<9.83E-02	0.00E+00	9.83E-02
		K-40	<4.51E-01	0.00E+00	4.51E-01
236489	5/21/2012 - 5/29/2012	I-131	<1.20E-02	0.00E+00	1.20E-02
		Cs-134	<1.33E-02	0.00E+00	1.33E-02
		Cs-137	<1.30E-02	0.00E+00	1.30E-02
		Be-7	<9.72E-02	0.00E+00	9.72E-02
		K-40	2.60E-01	7.22E-02	5.42E-02
236788	5/29/2012 - 6/4/2012	I-131	<7.64E-03	0.00E+00	7.64E-03
		Cs-134	<1.23E-02	0.00E+00	1.23E-02
		Cs-137	<1.17E-02	0.00E+00	1.17E-02
		Be-7	<1.06E-01	0.00E+00	1.06E-01
		K-40	2.04E-01	1.07E-01	1.68E-01
237114	6/4/2012 - 6/11/2012	I-131	<1.10E-02	0.00E+00	1.10E-02
		Cs-134	<1.12E-02	0.00E+00	1.12E-02



# MCGUIRE Radiological Environmental Monitoring Analysis Report - 2012 (Appendix E)

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

Sample Point 102 [ CONTROL - WNW @ 9.89 miles ]

Sample ID:	Sample Dates:	Nuclide	Activity	1 Sigma Error	LLD
237114	6/4/2012 - 6/11/2012	Cs-137	<1.14E-02	0.00E+00	1.14E-02
		Be-7	<9.32E-02	0.00E+00	9.32E-02
		K-40	5.27E-01	1.28E-01	1.96E-01
237289	6/11/2012 - 6/18/2012	I-131	<8.92E-03	0.00E+00	8.92E-03
		Cs-134	<1.13E-02	0.00E+00	1.13E-02
		Cs-137	<1.51E-02	0.00E+00	1.51E-02
		Be-7	<6.13E-02	0.00E+00	6.13E-02
		K-40	2.65E-01	8.86E-02	1.44E-01
237965	6/18/2012 - 6/25/2012	I-131	<1.10E-02	0.00E+00	1.10E-02
		Cs-134	<1.38E-02	0.00E+00	1.38E-02
		Cs-137	<1.90E-02	0.00E+00	1.90E-02
		Be-7	<8.48E-02	0.00E+00	8.48E-02
		K-40	4.86E-01	1.06E-01	2.08E-01
238717	6/25/2012 - 7/2/2012	I-131	<9.49E-03	0.00E+00	9.49E-03
		Cs-134	<1.22E-02	0.00E+00	1.22E-02
		Cs-137	<1.09E-02	0.00E+00	1.09E-02
		Be-7	<1.15E-01	0.00E+00	1.15E-01
		K-40	2.54E-01	1.08E-01	6.28E-02
239094	7/2/2012 - 7/9/2012	I-131	<1.20E-02	0.00E+00	1.20E-02
		Cs-134	<1.10E-02	0.00E+00	1.10E-02
		Cs-137	<1.32E-02	0.00E+00	1.32E-02
		Be-7	<9.42E-02	0.00E+00	9.42E-02
		K-40	<3.99E-01	0.00E+00	3.99E-01
239865	7/9/2012 - 7/16/2012	I-131	<6.66E-03	0.00E+00	6.66E-03
		Cs-134	<9.01E-03	0.00E+00	9.01E-03
		Cs-137	<1.20E-02	0.00E+00	1.20E-02
		Be-7	<5.69E-02	0.00E+00	5.69E-02
		K-40	3.97E-01	7.25E-02	3.58E-02
239990	7/16/2012 - 7/23/2012	I-131	<9.56E-03	0.00E+00	9.56E-03
		Cs-134	<9.89E-03	0.00E+00	9.89E-03
		Cs-137	<8.98E-03	0.00E+00	8.98E-03
		Be-7	<7.74E-02	0.00E+00	7.74E-02
		K-40	5.54E-01	9.38E-02	1.25E-01
240310	7/23/2012 - 7/30/2012	I-131	<9.62E-03	0.00E+00	9.62E-03
		Cs-134	<1.92E-02	0.00E+00	1.92E-02
		Cs-137	<2.02E-02	0.00E+00	2.02E-02
		Be-7	<1.01E-01	0.00E+00	1.01E-01
		K-40	2.78E-01	8.01E-02	1.74E-01
240947	7/30/2012 - 8/6/2012	I-131	<1.04E-02	0.00E+00	1.04E-02
		Cs-134	<1.35E-02	0.00E+00	1.35E-02
		Cs-137	<2.12E-02	0.00E+00	2.12E-02
		Be-7	<9.85E-02	0.00E+00	9.85E-02
		K-40	<4.47E-01	0.00E+00	4.47E-01
241218	8/6/2012 - 8/13/2012	I-131	<7.73E-03	0.00E+00	7.73E-03
		Cs-134	<1.12E-02	0.00E+00	1.12E-02
		Cs-137	<1.10E-02	0.00E+00	1.10E-02
		Be-7	<7.98E-02	0.00E+00	7.98E-02
		K-40	5.50E-01	8.19E-02	8.96E-02
241525	8/13/2012 - 8/20/2012	I-131	<1.38E-02	0.00E+00	1.38E-02
		Cs-134	<1.06E-02	0.00E+00	1.06E-02
		Cs-137	<1.80E-02	0.00E+00	1.80E-02



**MCGUIRE Radiological Environmental Monitoring Analysis Report - 2012 (Appendix E)**

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

Sample Point 102 [ CONTROL - WNW @ 9.89 miles ]

Sample ID:	Sample Dates:	Nuclide	Activity	1 Sigma Error	LLD
241525	8/13/2012 - 8/20/2012	Be-7	<9.88E-02	0.00E+00	9.88E-02
		K-40	6.55E-01	1.26E-01	6.56E-02
242114	8/20/2012 - 8/27/2012	I-131	<9.32E-03	0.00E+00	9.32E-03
		Cs-134	<1.50E-02	0.00E+00	1.50E-02
		Cs-137	<1.50E-02	0.00E+00	1.50E-02
		Be-7	<1.02E-01	0.00E+00	1.02E-01
		K-40	4.16E-01	9.79E-02	6.24E-02
242443	8/27/2012 - 9/4/2012	I-131	<1.23E-02	0.00E+00	1.23E-02
		Cs-134	<1.14E-02	0.00E+00	1.14E-02
		Cs-137	<1.13E-02	0.00E+00	1.13E-02
		Be-7	<9.45E-02	0.00E+00	9.45E-02
		K-40	3.87E-01	8.87E-02	5.50E-02
242970	9/4/2012 - 9/10/2012	I-131	<9.35E-03	0.00E+00	9.35E-03
		Cs-134	<1.38E-02	0.00E+00	1.38E-02
		Cs-137	<9.22E-03	0.00E+00	9.22E-03
		Be-7	<7.21E-02	0.00E+00	7.21E-02
		K-40	4.09E-01	1.59E-01	1.67E-01
243728	9/10/2012 - 9/17/2012	I-131	<1.00E-02	0.00E+00	1.00E-02
		Cs-134	<1.09E-02	0.00E+00	1.09E-02
		Cs-137	<1.22E-02	0.00E+00	1.22E-02
		Be-7	3.11E-01	4.58E-02	1.83E-02
		K-40	<2.20E-01	0.00E+00	2.20E-01
244133	9/17/2012 - 9/24/2012	I-131	<8.85E-03	0.00E+00	8.85E-03
		Cs-134	<7.45E-03	0.00E+00	7.45E-03
		Cs-137	<1.19E-02	0.00E+00	1.19E-02
		Be-7	<5.79E-02	0.00E+00	5.79E-02
		K-40	1.41E-01	7.61E-02	1.74E-01
245006	9/24/2012 - 10/1/2012	I-131	<8.40E-03	0.00E+00	8.40E-03
		Cs-134	<7.07E-03	0.00E+00	7.07E-03
		Cs-137	<5.31E-03	0.00E+00	5.31E-03
		Be-7	<4.82E-02	0.00E+00	4.82E-02
		K-40	3.58E-01	8.70E-02	5.70E-02
245826	10/1/2012 - 10/8/2012	I-131	<1.41E-02	0.00E+00	1.41E-02
		Cs-134	<1.13E-02	0.00E+00	1.13E-02
		Cs-137	<1.58E-02	0.00E+00	1.58E-02
		Be-7	<9.30E-02	0.00E+00	9.30E-02
		K-40	<5.04E-01	0.00E+00	5.04E-01
246681	10/8/2012 - 10/15/2012	I-131	<1.90E-02	0.00E+00	1.90E-02
		Cs-134	<1.14E-02	0.00E+00	1.14E-02
		Cs-137	<1.88E-02	0.00E+00	1.88E-02
		Be-7	<1.35E-01	0.00E+00	1.35E-01
		K-40	4.42E-01	1.01E-01	1.68E-01
247089	10/15/2012 - 10/22/2012	I-131	<1.38E-02	0.00E+00	1.38E-02
		Cs-134	<1.35E-02	0.00E+00	1.35E-02
		Cs-137	<1.50E-02	0.00E+00	1.50E-02
		Be-7	<1.28E-01	0.00E+00	1.28E-01
		K-40	4.16E-01	9.81E-02	2.11E-01
247405	10/22/2012 - 10/29/2012	I-131	<8.80E-03	0.00E+00	8.80E-03
		Cs-134	<1.06E-02	0.00E+00	1.06E-02
		Cs-137	<1.28E-02	0.00E+00	1.28E-02
		Be-7	<8.97E-02	0.00E+00	8.97E-02



# MCGUIRE Radiological Environmental Monitoring Analysis Report - 2012 (Appendix E)

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

## Sample Point 102 [ CONTROL - WNW @ 9.89 miles ]

Sample ID:	Sample Dates:	Nuclide	Activity	1 Sigma Error	LLD
247405	10/22/2012 - 10/29/2012	K-40	5.82E-01	8.88E-02	9.64E-02
247743	10/29/2012 - 11/5/2012	I-131	<6.73E-03	0.00E+00	6.73E-03
		Cs-134	<8.80E-03	0.00E+00	8.80E-03
		Cs-137	<9.53E-03	0.00E+00	9.53E-03
		Be-7	6.99E-02	2.30E-02	6.90E-02
		K-40	2.19E-01	6.91E-02	3.73E-02
247938	11/5/2012 - 11/12/2012	I-131	<1.20E-02	0.00E+00	1.20E-02
		Cs-134	<1.15E-02	0.00E+00	1.15E-02
		Cs-137	<1.91E-02	0.00E+00	1.91E-02
		Be-7	<1.17E-01	0.00E+00	1.17E-01
		K-40	2.87E-01	1.15E-01	1.85E-01
248342	11/12/2012 - 11/19/2012	I-131	<7.24E-03	0.00E+00	7.24E-03
		Cs-134	<8.03E-03	0.00E+00	8.03E-03
		Cs-137	<9.93E-03	0.00E+00	9.93E-03
		Be-7	<6.72E-02	0.00E+00	6.72E-02
		K-40	2.95E-01	7.88E-02	1.90E-01
248621	11/19/2012 - 11/26/2012	I-131	<8.82E-03	0.00E+00	8.82E-03
		Cs-134	<1.12E-02	0.00E+00	1.12E-02
		Cs-137	<6.67E-03	0.00E+00	6.67E-03
		Be-7	<6.48E-02	0.00E+00	6.48E-02
		K-40	3.80E-01	1.16E-01	2.29E-01
248994	11/26/2012 - 12/3/2012	I-131	<9.25E-03	0.00E+00	9.25E-03
		Cs-134	<6.33E-03	0.00E+00	6.33E-03
		Cs-137	<7.58E-03	0.00E+00	7.58E-03
		Be-7	<7.52E-02	0.00E+00	7.52E-02
		K-40	2.75E-01	7.62E-02	1.75E-01
249233	12/3/2012 - 12/10/2012	I-131	<1.20E-02	0.00E+00	1.20E-02
		Cs-134	<1.64E-02	0.00E+00	1.64E-02
		Cs-137	<3.53E-03	0.00E+00	3.53E-03
		Be-7	<1.18E-01	0.00E+00	1.18E-01
		K-40	5.08E-01	1.11E-01	6.53E-02
249431	12/10/2012 - 12/17/2012	I-131	<5.70E-03	0.00E+00	5.70E-03
		Cs-134	<8.57E-03	0.00E+00	8.57E-03
		Cs-137	<1.16E-02	0.00E+00	1.16E-02
		Be-7	<8.18E-02	0.00E+00	8.18E-02
		K-40	2.95E-01	7.88E-02	5.69E-02
249858	12/17/2012 - 12/24/2012	I-131	<1.09E-02	0.00E+00	1.09E-02
		Cs-134	<1.42E-02	0.00E+00	1.42E-02
		Cs-137	<1.24E-02	0.00E+00	1.24E-02
		Be-7	<7.12E-02	0.00E+00	7.12E-02
		K-40	<4.08E-01	0.00E+00	4.08E-01
250165	12/24/2012 - 12/31/2012	I-131	<5.30E-03	0.00E+00	5.30E-03
		Cs-134	<9.12E-03	0.00E+00	9.12E-03
		Cs-137	<1.02E-02	0.00E+00	1.02E-02
		Be-7	<1.73E-02	0.00E+00	1.73E-02
		K-40	<4.09E-01	0.00E+00	4.09E-01

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

Sample ID:	Sample Dates:	Nuclide	Activity	1 Sigma Error	LLD
227167	1/3/2012 - 1/9/2012	I-131	<1.07E-02	0.00E+00	1.07E-02
		Cs-134	<1.27E-02	0.00E+00	1.27E-02
		Cs-137	<1.52E-02	0.00E+00	1.52E-02



**MCGUIRE Radiological Environmental Monitoring Analysis Report - 2012 (Appendix E)**

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

Sample Point 103 [ INDICATOR - NE @ 4.2 miles ]

Sample ID:	Sample Dates:	Nuclide	Activity	1 Sigma Error	LLD
227167	1/3/2012 - 1/9/2012	Be-7	<7.38E-02	0.00E+00	7.38E-02
		K-40	2.27E-01	9.62E-02	1.34E-01
227300	1/9/2012 - 1/16/2012	I-131	<6.68E-03	0.00E+00	6.68E-03
		Cs-134	<8.57E-03	0.00E+00	8.57E-03
		Cs-137	<1.32E-02	0.00E+00	1.32E-02
		Be-7	<6.54E-02	0.00E+00	6.54E-02
		K-40	2.67E-01	7.40E-02	1.15E-01
227515	1/16/2012 - 1/23/2012	I-131	<8.81E-03	0.00E+00	8.81E-03
		Cs-134	<8.23E-03	0.00E+00	8.23E-03
		Cs-137	<1.34E-02	0.00E+00	1.34E-02
		Be-7	<7.13E-02	0.00E+00	7.13E-02
		K-40	3.88E-01	7.09E-02	1.17E-01
227837	1/23/2012 - 1/30/2012	I-131	<7.18E-03	0.00E+00	7.18E-03
		Cs-134	<8.55E-03	0.00E+00	8.55E-03
		Cs-137	<8.71E-03	0.00E+00	8.71E-03
		Be-7	<7.35E-02	0.00E+00	7.35E-02
		K-40	4.74E-01	1.07E-01	1.83E-01
228104	1/30/2012 - 2/6/2012	I-131	<9.75E-03	0.00E+00	9.75E-03
		Cs-134	<1.04E-02	0.00E+00	1.04E-02
		Cs-137	<1.30E-02	0.00E+00	1.30E-02
		Be-7	<6.76E-02	0.00E+00	6.76E-02
		K-40	2.52E-01	1.10E-01	1.77E-01
229415	2/6/2012 - 2/13/2012	I-131	<1.20E-02	0.00E+00	1.20E-02
		Cs-134	<1.22E-02	0.00E+00	1.22E-02
		Cs-137	<1.31E-02	0.00E+00	1.31E-02
		Be-7	<9.98E-02	0.00E+00	9.98E-02
		K-40	2.14E-01	1.06E-01	1.65E-01
230041	2/13/2012 - 2/20/2012	I-131	<7.86E-03	0.00E+00	7.86E-03
		Cs-134	<6.98E-03	0.00E+00	6.98E-03
		Cs-137	<1.12E-02	0.00E+00	1.12E-02
		Be-7	<5.99E-02	0.00E+00	5.99E-02
		K-40	3.50E-01	8.24E-02	1.41E-01
230716	2/20/2012 - 2/27/2012	I-131	<7.57E-03	0.00E+00	7.57E-03
		Cs-134	<6.51E-03	0.00E+00	6.51E-03
		Cs-137	<1.31E-02	0.00E+00	1.31E-02
		Be-7	<7.49E-02	0.00E+00	7.49E-02
		K-40	5.77E-01	8.25E-02	3.18E-02
230925	2/27/2012 - 3/5/2012	I-131	<9.46E-03	0.00E+00	9.46E-03
		Cs-134	<7.77E-03	0.00E+00	7.77E-03
		Cs-137	<1.69E-02	0.00E+00	1.69E-02
		Be-7	<8.19E-02	0.00E+00	8.19E-02
		K-40	4.40E-01	9.59E-02	1.53E-01
231635	3/5/2012 - 3/12/2012	I-131	<7.33E-03	0.00E+00	7.33E-03
		Cs-134	<9.59E-03	0.00E+00	9.59E-03
		Cs-137	<9.70E-03	0.00E+00	9.70E-03
		Be-7	<9.08E-02	0.00E+00	9.08E-02
		K-40	3.90E-01	8.72E-02	1.82E-01
232449	3/12/2012 - 3/19/2012	I-131	<6.96E-03	0.00E+00	6.96E-03
		Cs-134	<8.59E-03	0.00E+00	8.59E-03
		Cs-137	<8.78E-03	0.00E+00	8.78E-03
		Be-7	<7.50E-02	0.00E+00	7.50E-02



# MCGUIRE Radiological Environmental Monitoring Analysis Report - 2012 (Appendix E)

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

Sample Point 103 [ INDICATOR - NE @ 4.2 miles ]

Sample ID:	Sample Dates:	Nuclide	Activity	1 Sigma Error	LLD
232449	3/12/2012 - 3/19/2012	K-40	5.31E-01	8.29E-02	3.50E-02
233289	3/19/2012 - 3/26/2012	I-131	<8.00E-03	0.00E+00	8.00E-03
		Cs-134	<1.00E-02	0.00E+00	1.00E-02
		Cs-137	<6.84E-03	0.00E+00	6.84E-03
		Be-7	<5.41E-02	0.00E+00	5.41E-02
		K-40	2.55E-01	7.92E-02	1.49E-01
233530	3/26/2012 - 4/2/2012	I-131	<1.25E-02	0.00E+00	1.25E-02
		Cs-134	<1.43E-02	0.00E+00	1.43E-02
		Cs-137	<1.77E-02	0.00E+00	1.77E-02
		Be-7	<8.70E-02	0.00E+00	8.70E-02
		K-40	4.25E-01	1.24E-01	2.10E-01
234448	4/2/2012 - 4/9/2012	I-131	<6.24E-03	0.00E+00	6.24E-03
		Cs-134	<1.01E-02	0.00E+00	1.01E-02
		Cs-137	<1.03E-02	0.00E+00	1.03E-02
		Be-7	<6.34E-02	0.00E+00	6.34E-02
		K-40	5.26E-01	7.93E-02	9.06E-02
234875	4/9/2012 - 4/16/2012	I-131	<7.93E-03	0.00E+00	7.93E-03
		Cs-134	<8.17E-03	0.00E+00	8.17E-03
		Cs-137	<1.27E-02	0.00E+00	1.27E-02
		Be-7	<8.64E-02	0.00E+00	8.64E-02
		K-40	3.94E-01	8.27E-02	1.51E-01
235198	4/16/2012 - 4/23/2012	I-131	<1.31E-02	0.00E+00	1.31E-02
		Cs-134	<1.19E-02	0.00E+00	1.19E-02
		Cs-137	<1.67E-02	0.00E+00	1.67E-02
		Be-7	<7.09E-02	0.00E+00	7.09E-02
		K-40	2.73E-01	7.88E-02	1.88E-01
235383	4/23/2012 - 4/30/2012	I-131	<7.36E-03	0.00E+00	7.36E-03
		Cs-134	<1.10E-02	0.00E+00	1.10E-02
		Cs-137	<1.45E-02	0.00E+00	1.45E-02
		Be-7	<8.14E-02	0.00E+00	8.14E-02
		K-40	5.37E-01	9.79E-02	1.63E-01
235721	4/30/2012 - 5/7/2012	I-131	<1.10E-02	0.00E+00	1.10E-02
		Cs-134	<1.87E-02	0.00E+00	1.87E-02
		Cs-137	<1.77E-02	0.00E+00	1.77E-02
		Be-7	<1.16E-01	0.00E+00	1.16E-01
		K-40	4.67E-01	1.04E-01	1.76E-01
235967	5/7/2012 - 5/14/2012	I-131	<8.31E-03	0.00E+00	8.31E-03
		Cs-134	<9.43E-03	0.00E+00	9.43E-03
		Cs-137	<1.06E-02	0.00E+00	1.06E-02
		Be-7	<8.28E-02	0.00E+00	8.28E-02
		K-40	5.74E-01	8.76E-02	3.61E-01
236177	5/14/2012 - 5/21/2012	I-131	<6.86E-03	0.00E+00	6.86E-03
		Cs-134	<7.47E-03	0.00E+00	7.47E-03
		Cs-137	<1.27E-02	0.00E+00	1.27E-02
		Be-7	<7.06E-02	0.00E+00	7.06E-02
		K-40	4.94E-01	8.11E-02	1.24E-01
236490	5/21/2012 - 5/29/2012	I-131	<8.51E-03	0.00E+00	8.51E-03
		Cs-134	<1.14E-02	0.00E+00	1.14E-02
		Cs-137	<1.19E-02	0.00E+00	1.19E-02
		Be-7	<2.47E-02	0.00E+00	2.47E-02





# MCGUIRE Radiological Environmental Monitoring Analysis Report - 2012 (Appendix E)

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

Sample Point 103 [ INDICATOR - NE @ 4.2 miles ]

Sample ID:	Sample Dates:	Nuclide	Activity	1 Sigma Error	LLD
236490	5/21/2012 - 5/29/2012	K-40	<3.52E-01	0.00E+00	3.52E-01
236789	5/29/2012 - 6/4/2012	I-131	<6.07E-03	0.00E+00	6.07E-03
		Cs-134	<1.32E-02	0.00E+00	1.32E-02
		Cs-137	<1.64E-02	0.00E+00	1.64E-02
		Be-7	<7.80E-02	0.00E+00	7.80E-02
		K-40	2.07E-01	1.05E-01	3.01E-01
237115	6/4/2012 - 6/11/2012	I-131	<9.77E-03	0.00E+00	9.77E-03
		Cs-134	<8.03E-03	0.00E+00	8.03E-03
		Cs-137	<1.36E-02	0.00E+00	1.36E-02
		Be-7	<7.24E-02	0.00E+00	7.24E-02
		K-40	<3.64E-01	0.00E+00	3.64E-01
237290	6/11/2012 - 6/18/2012	I-131	<9.15E-03	0.00E+00	9.15E-03
		Cs-134	<1.04E-02	0.00E+00	1.04E-02
		Cs-137	<1.44E-02	0.00E+00	1.44E-02
		Be-7	<8.22E-02	0.00E+00	8.22E-02
		K-40	3.55E-01	9.01E-02	1.40E-01
237966	6/18/2012 - 6/25/2012	I-131	<9.49E-03	0.00E+00	9.49E-03
		Cs-134	<1.63E-02	0.00E+00	1.63E-02
		Cs-137	<1.96E-02	0.00E+00	1.96E-02
		Be-7	<1.02E-01	0.00E+00	1.02E-01
		K-40	<4.54E-01	0.00E+00	4.54E-01
238718	6/25/2012 - 7/2/2012	I-131	<1.05E-02	0.00E+00	1.05E-02
		Cs-134	<1.31E-02	0.00E+00	1.31E-02
		Cs-137	<1.52E-02	0.00E+00	1.52E-02
		Be-7	<1.19E-01	0.00E+00	1.19E-01
		K-40	2.79E-01	1.12E-01	2.11E-01
239095	7/2/2012 - 7/9/2012	I-131	<7.58E-03	0.00E+00	7.58E-03
		Cs-134	<1.05E-02	0.00E+00	1.05E-02
		Cs-137	<1.02E-02	0.00E+00	1.02E-02
		Be-7	<7.21E-02	0.00E+00	7.21E-02
		K-40	4.95E-01	8.14E-02	1.27E-01
239866	7/9/2012 - 7/16/2012	I-131	<8.79E-03	0.00E+00	8.79E-03
		Cs-134	<8.24E-03	0.00E+00	8.24E-03
		Cs-137	<1.36E-02	0.00E+00	1.36E-02
		Be-7	<9.11E-02	0.00E+00	9.11E-02
		K-40	2.92E-01	7.86E-02	9.68E-02
239991	7/16/2012 - 7/23/2012	I-131	<8.56E-03	0.00E+00	8.56E-03
		Cs-134	<1.18E-02	0.00E+00	1.18E-02
		Cs-137	<1.44E-02	0.00E+00	1.44E-02
		Be-7	<7.70E-02	0.00E+00	7.70E-02
		K-40	5.01E-01	8.03E-02	3.47E-02
240311	7/23/2012 - 7/30/2012	I-131	<1.19E-02	0.00E+00	1.19E-02
		Cs-134	<1.09E-02	0.00E+00	1.09E-02
		Cs-137	<1.53E-02	0.00E+00	1.53E-02
		Be-7	<6.34E-02	0.00E+00	6.34E-02
		K-40	3.61E-01	8.76E-02	5.74E-02
240948	7/30/2012 - 8/6/2012	I-131	<6.94E-03	0.00E+00	6.94E-03
		Cs-134	<8.70E-03	0.00E+00	8.70E-03
		Cs-137	<1.08E-02	0.00E+00	1.08E-02
		Be-7	<8.24E-02	0.00E+00	8.24E-02



**MCGUIRE Radiological Environmental Monitoring Analysis Report - 2012 (Appendix E)**

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

Sample Point 103 [ INDICATOR - NE @ 4.2 miles ]

Sample ID:	Sample Dates:	Nuclide	Activity	1 Sigma Error	LLD
240948	7/30/2012 - 8/6/2012	K-40	4.92E-01	8.41E-02	1.25E-01
241219	8/6/2012 - 8/13/2012	I-131	<9.05E-03	0.00E+00	9.05E-03
		Cs-134	<8.43E-03	0.00E+00	8.43E-03
		Cs-137	<1.67E-02	0.00E+00	1.67E-02
		Be-7	<8.04E-02	0.00E+00	8.04E-02
		K-40	<4.45E-01	0.00E+00	4.45E-01
241526	8/13/2012 - 8/20/2012	I-131	<8.61E-03	0.00E+00	8.61E-03
		Cs-134	<9.98E-03	0.00E+00	9.98E-03
		Cs-137	<1.14E-02	0.00E+00	1.14E-02
		Be-7	<7.73E-02	0.00E+00	7.73E-02
		K-40	4.02E-01	9.60E-02	1.14E-01
242115	8/20/2012 - 8/27/2012	I-131	<9.74E-03	0.00E+00	9.74E-03
		Cs-134	<8.39E-03	0.00E+00	8.39E-03
		Cs-137	<1.36E-02	0.00E+00	1.36E-02
		Be-7	<8.56E-02	0.00E+00	8.56E-02
		K-40	4.48E-01	7.79E-02	1.52E-01
242444	8/27/2012 - 9/4/2012	I-131	<7.26E-03	0.00E+00	7.26E-03
		Cs-134	<8.09E-03	0.00E+00	8.09E-03
		Cs-137	<8.53E-03	0.00E+00	8.53E-03
		Be-7	<5.75E-02	0.00E+00	5.75E-02
		K-40	4.94E-01	7.29E-02	7.78E-02
242971	9/4/2012 - 9/10/2012	I-131	<1.01E-02	0.00E+00	1.01E-02
		Cs-134	<7.24E-03	0.00E+00	7.24E-03
		Cs-137	<1.44E-02	0.00E+00	1.44E-02
		Be-7	<6.39E-02	0.00E+00	6.39E-02
		K-40	3.66E-01	7.81E-02	4.50E-02
243729	9/10/2012 - 9/17/2012	I-131	<1.32E-02	0.00E+00	1.32E-02
		Cs-134	<1.43E-02	0.00E+00	1.43E-02
		Cs-137	<1.82E-02	0.00E+00	1.82E-02
		Be-7	<8.28E-02	0.00E+00	8.28E-02
		K-40	3.48E-01	1.16E-01	2.16E-01
244134	9/17/2012 - 9/24/2012	I-131	<9.28E-03	0.00E+00	9.28E-03
		Cs-134	<1.19E-02	0.00E+00	1.19E-02
		Cs-137	<1.15E-02	0.00E+00	1.15E-02
		Be-7	<6.70E-02	0.00E+00	6.70E-02
		K-40	<3.47E-01	0.00E+00	3.47E-01
245007	9/24/2012 - 10/1/2012	I-131	<6.60E-03	0.00E+00	6.60E-03
		Cs-134	<1.11E-02	0.00E+00	1.11E-02
		Cs-137	<8.97E-03	0.00E+00	8.97E-03
		Be-7	<1.69E-02	0.00E+00	1.69E-02
		K-40	2.48E-01	9.49E-02	2.05E-01
245827	10/1/2012 - 10/8/2012	I-131	<7.32E-03	0.00E+00	7.32E-03
		Cs-134	<7.58E-03	0.00E+00	7.58E-03
		Cs-137	<1.11E-02	0.00E+00	1.11E-02
		Be-7	<6.78E-02	0.00E+00	6.78E-02
		K-40	<3.61E-01	0.00E+00	3.61E-01
246682	10/8/2012 - 10/15/2012	I-131	<7.10E-03	0.00E+00	7.10E-03
		Cs-134	<4.29E-03	0.00E+00	4.29E-03
		Cs-137	<1.30E-02	0.00E+00	1.30E-02
		Be-7	<8.62E-02	0.00E+00	8.62E-02



**MCGUIRE Radiological Environmental Monitoring Analysis Report - 2012 (Appendix E)**

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

Sample Point 103 [ INDICATOR - NE @ 4.2 miles ]

Sample ID:	Sample Dates:	Nuclide	Activity	1 Sigma Error	LLD
246682	10/8/2012 - 10/15/2012	K-40	2.16E-01	8.62E-02	1.85E-01
247090	10/15/2012 - 10/22/2012	I-131	<1.30E-02	0.00E+00	1.30E-02
		Cs-134	<1.44E-02	0.00E+00	1.44E-02
		Cs-137	<1.23E-02	0.00E+00	1.23E-02
		Be-7	<1.45E-01	0.00E+00	1.45E-01
		K-40	3.98E-01	9.65E-02	2.14E-01
247406	10/22/2012 - 10/29/2012	I-131	<1.11E-02	0.00E+00	1.11E-02
		Cs-134	<1.06E-02	0.00E+00	1.06E-02
		Cs-137	<1.27E-02	0.00E+00	1.27E-02
		Be-7	<8.84E-02	0.00E+00	8.84E-02
		K-40	4.18E-01	9.60E-02	5.95E-02
247744	10/29/2012 - 11/5/2012	I-131	<7.29E-03	0.00E+00	7.29E-03
		Cs-134	<1.22E-02	0.00E+00	1.22E-02
		Cs-137	<1.39E-02	0.00E+00	1.39E-02
		Be-7	<8.22E-02	0.00E+00	8.22E-02
		K-40	3.35E-01	8.24E-02	1.75E-01
247939	11/5/2012 - 11/12/2012	I-131	<3.94E-03	0.00E+00	3.94E-03
		Cs-134	<8.43E-03	0.00E+00	8.43E-03
		Cs-137	<7.51E-03	0.00E+00	7.51E-03
		Be-7	<8.56E-02	0.00E+00	8.56E-02
		K-40	4.19E-01	9.36E-02	5.66E-02
248343	11/12/2012 - 11/19/2012	I-131	<8.67E-03	0.00E+00	8.67E-03
		Cs-134	<9.03E-03	0.00E+00	9.03E-03
		Cs-137	<9.66E-03	0.00E+00	9.66E-03
		Be-7	<5.48E-02	0.00E+00	5.48E-02
		K-40	2.56E-01	7.40E-02	5.77E-02
248622	11/19/2012 - 11/26/2012	I-131	<7.86E-03	0.00E+00	7.86E-03
		Cs-134	<8.62E-03	0.00E+00	8.62E-03
		Cs-137	<1.15E-02	0.00E+00	1.15E-02
		Be-7	<6.36E-02	0.00E+00	6.36E-02
		K-40	4.22E-01	9.43E-02	5.70E-02
248995	11/26/2012 - 12/3/2012	I-131	<9.78E-03	0.00E+00	9.78E-03
		Cs-134	<9.22E-03	0.00E+00	9.22E-03
		Cs-137	<1.40E-02	0.00E+00	1.40E-02
		Be-7	<6.76E-02	0.00E+00	6.76E-02
		K-40	4.43E-01	7.96E-02	1.02E-01
249234	12/3/2012 - 12/10/2012	I-131	<7.55E-03	0.00E+00	7.55E-03
		Cs-134	<6.28E-03	0.00E+00	6.28E-03
		Cs-137	<1.34E-02	0.00E+00	1.34E-02
		Be-7	<4.43E-02	0.00E+00	4.43E-02
		K-40	<3.73E-01	0.00E+00	3.73E-01
249432	12/10/2012 - 12/17/2012	I-131	<8.58E-03	0.00E+00	8.58E-03
		Cs-134	<5.16E-03	0.00E+00	5.16E-03
		Cs-137	<1.25E-02	0.00E+00	1.25E-02
		Be-7	<5.21E-02	0.00E+00	5.21E-02
		K-40	<3.71E-01	0.00E+00	3.71E-01
249859	12/17/2012 - 12/24/2012	I-131	<1.28E-02	0.00E+00	1.28E-02
		Cs-134	<2.77E-03	0.00E+00	2.77E-03
		Cs-137	<1.13E-02	0.00E+00	1.13E-02
		Be-7	<4.06E-02	0.00E+00	4.06E-02



**MCGUIRE Radiological Environmental Monitoring Analysis Report - 2012 (Appendix E)**

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

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

Sample ID:	Sample Dates:	Nuclide	Activity	1 Sigma Error	LLD
249859	12/17/2012 - 12/24/2012	K-40	2.92E-01	1.04E-01	1.60E-01
250166	12/24/2012 - 12/31/2012	I-131	<7.51E-03	0.00E+00	7.51E-03
		Cs-134	<9.57E-03	0.00E+00	9.57E-03
		Cs-137	<1.23E-02	0.00E+00	1.23E-02
		Be-7	<4.72E-02	0.00E+00	4.72E-02
		K-40	3.78E-01	8.92E-02	5.68E-02

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

Sample ID:	Sample Dates:	Nuclide	Activity	1 Sigma Error	LLD
227168	1/3/2012 - 1/9/2012	I-131	<1.24E-02	0.00E+00	1.24E-02
		Cs-134	<1.39E-02	0.00E+00	1.39E-02
		Cs-137	<1.57E-02	0.00E+00	1.57E-02
		Be-7	<1.15E-01	0.00E+00	1.15E-01
		K-40	3.82E-01	9.54E-02	1.78E-01
227301	1/9/2012 - 1/16/2012	I-131	<8.62E-03	0.00E+00	8.62E-03
		Cs-134	<9.28E-03	0.00E+00	9.28E-03
		Cs-137	<1.30E-02	0.00E+00	1.30E-02
		Be-7	<5.67E-02	0.00E+00	5.67E-02
		K-40	<3.11E-01	0.00E+00	3.11E-01
227516	1/16/2012 - 1/23/2012	I-131	<1.12E-02	0.00E+00	1.12E-02
		Cs-134	<7.18E-03	0.00E+00	7.18E-03
		Cs-137	<1.58E-02	0.00E+00	1.58E-02
		Be-7	<5.33E-02	0.00E+00	5.33E-02
		K-40	<3.89E-01	0.00E+00	3.89E-01
227838	1/23/2012 - 1/30/2012	I-131	<7.05E-03	0.00E+00	7.05E-03
		Cs-134	<9.76E-03	0.00E+00	9.76E-03
		Cs-137	<9.74E-03	0.00E+00	9.74E-03
		Be-7	<5.20E-02	0.00E+00	5.20E-02
		K-40	6.63E-01	8.86E-02	1.26E-01
228105	1/30/2012 - 2/6/2012	I-131	<9.26E-03	0.00E+00	9.26E-03
		Cs-134	<9.68E-03	0.00E+00	9.68E-03
		Cs-137	<1.11E-02	0.00E+00	1.11E-02
		Be-7	<7.46E-02	0.00E+00	7.46E-02
		K-40	4.29E-01	7.46E-02	3.51E-02
229416	2/6/2012 - 2/13/2012	I-131	<1.47E-02	0.00E+00	1.47E-02
		Cs-134	<9.83E-03	0.00E+00	9.83E-03
		Cs-137	<1.51E-02	0.00E+00	1.51E-02
		Be-7	<5.76E-02	0.00E+00	5.76E-02
		K-40	5.41E-01	1.13E-01	6.36E-02
230042	2/13/2012 - 2/20/2012	I-131	<9.09E-03	0.00E+00	9.09E-03
		Cs-134	<7.60E-03	0.00E+00	7.60E-03
		Cs-137	<1.32E-02	0.00E+00	1.32E-02
		Be-7	<1.02E-01	0.00E+00	1.02E-01
		K-40	4.82E-01	1.05E-01	1.77E-01
230717	2/20/2012 - 2/27/2012	I-131	<1.03E-02	0.00E+00	1.03E-02
		Cs-134	<8.20E-03	0.00E+00	8.20E-03
		Cs-137	<1.32E-02	0.00E+00	1.32E-02
		Be-7	<9.53E-02	0.00E+00	9.53E-02
		K-40	6.56E-01	9.18E-02	3.47E-02
230926	2/27/2012 - 3/5/2012	I-131	<7.27E-03	0.00E+00	7.27E-03
		Cs-134	<1.13E-02	0.00E+00	1.13E-02
		Cs-137	<1.06E-02	0.00E+00	1.06E-02



**MCGUIRE Radiological Environmental Monitoring Analysis Report - 2012 (Appendix E)**

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

Sample Point 120 [ INDICATOR - NNE @ 0.46 miles ]

Sample ID:	Sample Dates:	Nuclide	Activity	1 Sigma Error	LLD
230926	2/27/2012 - 3/5/2012	Be-7	<5.45E-02	0.00E+00	5.45E-02
		K-40	4.13E-01	7.19E-02	1.03E-01
231636	3/5/2012 - 3/12/2012	Nuclide	Activity	1 Sigma Error	LLD
		I-131	<1.39E-02	0.00E+00	1.39E-02
		Cs-134	<1.16E-02	0.00E+00	1.16E-02
		Cs-137	<1.61E-02	0.00E+00	1.61E-02
		Be-7	<1.02E-01	0.00E+00	1.02E-01
232450	3/12/2012 - 3/19/2012	Nuclide	Activity	1 Sigma Error	LLD
		I-131	<7.39E-03	0.00E+00	7.39E-03
		Cs-134	<7.18E-03	0.00E+00	7.18E-03
		Cs-137	<1.93E-02	0.00E+00	1.93E-02
		Be-7	<9.24E-02	0.00E+00	9.24E-02
233290	3/19/2012 - 3/26/2012	Nuclide	Activity	1 Sigma Error	LLD
		I-131	<1.02E-02	0.00E+00	1.02E-02
		Cs-134	<1.43E-02	0.00E+00	1.43E-02
		Cs-137	<1.24E-02	0.00E+00	1.24E-02
		Be-7	<1.04E-01	0.00E+00	1.04E-01
233531	3/26/2012 - 4/2/2012	Nuclide	Activity	1 Sigma Error	LLD
		I-131	<9.31E-03	0.00E+00	9.31E-03
		Cs-134	<1.07E-02	0.00E+00	1.07E-02
		Cs-137	<1.78E-02	0.00E+00	1.78E-02
		Be-7	<7.96E-02	0.00E+00	7.96E-02
234449	4/2/2012 - 4/9/2012	Nuclide	Activity	1 Sigma Error	LLD
		I-131	<7.17E-03	0.00E+00	7.17E-03
		Cs-134	<8.04E-03	0.00E+00	8.04E-03
		Cs-137	<1.72E-02	0.00E+00	1.72E-02
		Be-7	<6.55E-02	0.00E+00	6.55E-02
234876	4/9/2012 - 4/16/2012	Nuclide	Activity	1 Sigma Error	LLD
		I-131	<1.24E-02	0.00E+00	1.24E-02
		Cs-134	<1.28E-02	0.00E+00	1.28E-02
		Cs-137	<1.46E-02	0.00E+00	1.46E-02
		Be-7	<8.70E-02	0.00E+00	8.70E-02
235199	4/16/2012 - 4/23/2012	Nuclide	Activity	1 Sigma Error	LLD
		I-131	<6.49E-03	0.00E+00	6.49E-03
		Cs-134	<7.52E-03	0.00E+00	7.52E-03
		Cs-137	<1.07E-02	0.00E+00	1.07E-02
		Be-7	<6.11E-02	0.00E+00	6.11E-02
235384	4/23/2012 - 4/30/2012	Nuclide	Activity	1 Sigma Error	LLD
		I-131	<5.75E-03	0.00E+00	5.75E-03
		Cs-134	<1.03E-02	0.00E+00	1.03E-02
		Cs-137	<1.22E-02	0.00E+00	1.22E-02
		Be-7	<8.42E-02	0.00E+00	8.42E-02
235722	4/30/2012 - 5/7/2012	Nuclide	Activity	1 Sigma Error	LLD
		I-131	<6.99E-03	0.00E+00	6.99E-03
		Cs-134	<1.09E-02	0.00E+00	1.09E-02
		Cs-137	<1.08E-02	0.00E+00	1.08E-02
		Be-7	<7.11E-02	0.00E+00	7.11E-02
235968	5/7/2012 - 5/14/2012	Nuclide	Activity	1 Sigma Error	LLD
		I-131	<1.08E-02	0.00E+00	1.08E-02
		Cs-134	<1.15E-02	0.00E+00	1.15E-02
		Cs-137	<1.29E-02	0.00E+00	1.29E-02
		Be-7	<6.28E-02	0.00E+00	6.28E-02



# MCGUIRE Radiological Environmental Monitoring Analysis Report - 2012 (Appendix E)

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

Sample Point 120 [ INDICATOR - NNE @ 0.46 miles ]

Sample ID:	Sample Dates:	Nuclide	Activity	1 Sigma Error	LLD
235968	5/7/2012 - 5/14/2012	K-40	<4.02E-01	0.00E+00	4.02E-01
236178	5/14/2012 - 5/21/2012	I-131	<7.94E-03	0.00E+00	7.94E-03
		Cs-134	<1.10E-02	0.00E+00	1.10E-02
		Cs-137	<1.46E-02	0.00E+00	1.46E-02
		Be-7	<9.59E-02	0.00E+00	9.59E-02
		K-40	3.42E-01	8.83E-02	1.61E-01
236491	5/21/2012 - 5/29/2012	I-131	<6.76E-03	0.00E+00	6.76E-03
		Cs-134	<9.34E-03	0.00E+00	9.34E-03
		Cs-137	<1.03E-02	0.00E+00	1.03E-02
		Be-7	<6.99E-02	0.00E+00	6.99E-02
		K-40	3.39E-01	7.03E-02	1.56E-01
236790	5/29/2012 - 6/4/2012	I-131	<9.16E-03	0.00E+00	9.16E-03
		Cs-134	<1.61E-02	0.00E+00	1.61E-02
		Cs-137	<1.98E-02	0.00E+00	1.98E-02
		Be-7	<1.24E-01	0.00E+00	1.24E-01
		K-40	5.87E-01	1.28E-01	2.53E-01
237116	6/4/2012 - 6/11/2012	I-131	<6.95E-03	0.00E+00	6.95E-03
		Cs-134	<1.03E-02	0.00E+00	1.03E-02
		Cs-137	<1.07E-02	0.00E+00	1.07E-02
		Be-7	<7.20E-02	0.00E+00	7.20E-02
		K-40	3.10E-01	6.45E-02	1.20E-01
237291	6/11/2012 - 6/18/2012	I-131	<9.02E-03	0.00E+00	9.02E-03
		Cs-134	<8.52E-03	0.00E+00	8.52E-03
		Cs-137	<1.10E-02	0.00E+00	1.10E-02
		Be-7	<8.49E-02	0.00E+00	8.49E-02
		K-40	5.43E-01	8.97E-02	1.09E-01
237967	6/18/2012 - 6/25/2012	I-131	<8.56E-03	0.00E+00	8.56E-03
		Cs-134	<6.23E-03	0.00E+00	6.23E-03
		Cs-137	<1.52E-02	0.00E+00	1.52E-02
		Be-7	<6.78E-02	0.00E+00	6.78E-02
		K-40	1.79E-01	1.03E-01	2.23E-01
238719	6/25/2012 - 7/2/2012	I-131	<5.64E-03	0.00E+00	5.64E-03
		Cs-134	<6.68E-03	0.00E+00	6.68E-03
		Cs-137	<9.86E-03	0.00E+00	9.86E-03
		Be-7	<5.29E-02	0.00E+00	5.29E-02
		K-40	5.10E-01	6.26E-02	8.41E-02
239096	7/2/2012 - 7/9/2012	I-131	<4.86E-03	0.00E+00	4.86E-03
		Cs-134	<8.01E-03	0.00E+00	8.01E-03
		Cs-137	<1.19E-02	0.00E+00	1.19E-02
		Be-7	<6.83E-02	0.00E+00	6.83E-02
		K-40	2.67E-01	5.97E-02	1.42E-01
239867	7/9/2012 - 7/16/2012	I-131	<1.22E-02	0.00E+00	1.22E-02
		Cs-134	<1.19E-02	0.00E+00	1.19E-02
		Cs-137	<1.27E-02	0.00E+00	1.27E-02
		Be-7	<1.02E-01	0.00E+00	1.02E-01
		K-40	3.23E-01	8.64E-02	2.21E-01
239992	7/16/2012 - 7/23/2012	I-131	<7.16E-03	0.00E+00	7.16E-03
		Cs-134	<9.73E-03	0.00E+00	9.73E-03
		Cs-137	<9.35E-03	0.00E+00	9.35E-03
		Be-7	<7.10E-02	0.00E+00	7.10E-02



# MCGUIRE Radiological Environmental Monitoring Analysis Report - 2012 (Appendix E)

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

Sample Point 120 [ INDICATOR - NNE @ 0.46 miles ]

Sample ID:	Sample Dates:	Nuclide	Activity	1 Sigma Error	LLD
239992	7/16/2012 - 7/23/2012	K-40	3.64E-01	6.87E-02	3.51E-02
240312	7/23/2012 - 7/30/2012	I-131	<6.76E-03	0.00E+00	6.76E-03
		Cs-134	<1.12E-02	0.00E+00	1.12E-02
		Cs-137	<9.56E-03	0.00E+00	9.56E-03
		Be-7	<5.08E-02	0.00E+00	5.08E-02
		K-40	2.72E-01	6.08E-02	9.79E-02
240949	7/30/2012 - 8/6/2012	I-131	<1.04E-02	0.00E+00	1.04E-02
		Cs-134	<9.46E-03	0.00E+00	9.46E-03
		Cs-137	<9.27E-03	0.00E+00	9.27E-03
		Be-7	<8.71E-02	0.00E+00	8.71E-02
		K-40	4.64E-01	7.74E-02	1.16E-01
241220	8/6/2012 - 8/13/2012	I-131	<7.06E-03	0.00E+00	7.06E-03
		Cs-134	<8.06E-03	0.00E+00	8.06E-03
		Cs-137	<1.29E-02	0.00E+00	1.29E-02
		Be-7	<6.41E-02	0.00E+00	6.41E-02
		K-40	3.67E-01	8.24E-02	1.27E-01
241527	8/13/2012 - 8/20/2012	I-131	<5.73E-03	0.00E+00	5.73E-03
		Cs-134	<5.41E-03	0.00E+00	5.41E-03
		Cs-137	<1.25E-02	0.00E+00	1.25E-02
		Be-7	<6.27E-02	0.00E+00	6.27E-02
		K-40	5.68E-01	8.77E-02	3.66E-02
242116	8/20/2012 - 8/27/2012	I-131	<9.40E-03	0.00E+00	9.40E-03
		Cs-134	<1.26E-02	0.00E+00	1.26E-02
		Cs-137	<1.32E-02	0.00E+00	1.32E-02
		Be-7	<7.46E-02	0.00E+00	7.46E-02
		K-40	3.59E-01	9.48E-02	1.71E-01
242445	8/27/2012 - 9/4/2012	I-131	<9.43E-03	0.00E+00	9.43E-03
		Cs-134	<7.24E-03	0.00E+00	7.24E-03
		Cs-137	<1.37E-02	0.00E+00	1.37E-02
		Be-7	<5.88E-02	0.00E+00	5.88E-02
		K-40	4.62E-01	7.39E-02	1.07E-01
242972	9/4/2012 - 9/10/2012	I-131	<8.08E-03	0.00E+00	8.08E-03
		Cs-134	<9.42E-03	0.00E+00	9.42E-03
		Cs-137	<1.39E-02	0.00E+00	1.39E-02
		Be-7	<9.18E-02	0.00E+00	9.18E-02
		K-40	3.19E-01	9.14E-02	1.17E-01
243730	9/10/2012 - 9/17/2012	I-131	<6.90E-03	0.00E+00	6.90E-03
		Cs-134	<7.80E-03	0.00E+00	7.80E-03
		Cs-137	<9.31E-03	0.00E+00	9.31E-03
		Be-7	<6.47E-02	0.00E+00	6.47E-02
		K-40	3.30E-01	8.25E-02	1.86E-01
244135	9/17/2012 - 9/24/2012	I-131	<1.32E-02	0.00E+00	1.32E-02
		Cs-134	<1.21E-02	0.00E+00	1.21E-02
		Cs-137	<1.56E-02	0.00E+00	1.56E-02
		Be-7	<1.10E-01	0.00E+00	1.10E-01
		K-40	<4.29E-01	0.00E+00	4.29E-01
245008	9/24/2012 - 10/1/2012	I-131	<6.83E-03	0.00E+00	6.83E-03
		Cs-134	<2.30E-03	0.00E+00	2.30E-03
		Cs-137	<7.47E-03	0.00E+00	7.47E-03
		Be-7	<8.77E-02	0.00E+00	8.77E-02



# MCGUIRE Radiological Environmental Monitoring Analysis Report - 2012 (Appendix E)

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

Sample Point 120 [ INDICATOR - NNE @ 0.46 miles ]

Sample ID:	Sample Dates:	Nuclide	Activity	1 Sigma Error	LLD
245008	9/24/2012 - 10/1/2012	K-40	2.92E-01	7.80E-02	5.63E-02
245828	10/1/2012 - 10/8/2012	I-131	<7.25E-03	0.00E+00	7.25E-03
		Cs-134	<7.89E-03	0.00E+00	7.89E-03
		Cs-137	<1.47E-02	0.00E+00	1.47E-02
		Be-7	<4.66E-02	0.00E+00	4.66E-02
		K-40	<3.81E-01	0.00E+00	3.81E-01
246683	10/8/2012 - 10/15/2012	I-131	<1.34E-02	0.00E+00	1.34E-02
		Cs-134	<1.67E-02	0.00E+00	1.67E-02
		Cs-137	<1.31E-02	0.00E+00	1.31E-02
		Be-7	<1.24E-01	0.00E+00	1.24E-01
		K-40	4.74E-01	1.03E-01	2.06E-01
247091	10/15/2012 - 10/22/2012	I-131	<1.00E-02	0.00E+00	1.00E-02
		Cs-134	<8.06E-03	0.00E+00	8.06E-03
		Cs-137	<9.80E-03	0.00E+00	9.80E-03
		Be-7	<7.81E-02	0.00E+00	7.81E-02
		K-40	<4.31E-01	0.00E+00	4.31E-01
247407	10/22/2012 - 10/29/2012	I-131	<1.10E-02	0.00E+00	1.10E-02
		Cs-134	<1.50E-02	0.00E+00	1.50E-02
		Cs-137	<1.52E-02	0.00E+00	1.52E-02
		Be-7	<2.20E-02	0.00E+00	2.20E-02
		K-40	3.63E-01	9.38E-02	6.54E-02
247745	10/29/2012 - 11/5/2012	I-131	<7.10E-03	0.00E+00	7.10E-03
		Cs-134	<1.34E-02	0.00E+00	1.34E-02
		Cs-137	<1.51E-02	0.00E+00	1.51E-02
		Be-7	<4.20E-02	0.00E+00	4.20E-02
		K-40	<4.53E-01	0.00E+00	4.53E-01
247940	11/5/2012 - 11/12/2012	I-131	<8.71E-03	0.00E+00	8.71E-03
		Cs-134	<8.21E-03	0.00E+00	8.21E-03
		Cs-137	<1.14E-02	0.00E+00	1.14E-02
		Be-7	<8.19E-02	0.00E+00	8.19E-02
		K-40	<2.99E-01	0.00E+00	2.99E-01
248344	11/12/2012 - 11/19/2012	I-131	<1.04E-02	0.00E+00	1.04E-02
		Cs-134	<1.16E-02	0.00E+00	1.16E-02
		Cs-137	<1.14E-02	0.00E+00	1.14E-02
		Be-7	<6.53E-02	0.00E+00	6.53E-02
		K-40	3.70E-01	8.96E-02	5.87E-02
248623	11/19/2012 - 11/26/2012	I-131	<7.04E-03	0.00E+00	7.04E-03
		Cs-134	<8.46E-03	0.00E+00	8.46E-03
		Cs-137	<1.16E-02	0.00E+00	1.16E-02
		Be-7	<4.60E-02	0.00E+00	4.60E-02
		K-40	2.86E-01	9.69E-02	5.71E-02
248996	11/26/2012 - 12/3/2012	I-131	<8.14E-03	0.00E+00	8.14E-03
		Cs-134	<1.08E-02	0.00E+00	1.08E-02
		Cs-137	<1.35E-02	0.00E+00	1.35E-02
		Be-7	<6.72E-02	0.00E+00	6.72E-02
		K-40	<3.70E-01	0.00E+00	3.70E-01
249235	12/3/2012 - 12/10/2012	I-131	<9.13E-03	0.00E+00	9.13E-03
		Cs-134	<6.51E-03	0.00E+00	6.51E-03
		Cs-137	<2.85E-03	0.00E+00	2.85E-03
		Be-7	<6.46E-02	0.00E+00	6.46E-02





**MCGUIRE Radiological Environmental Monitoring Analysis Report - 2012 (Appendix E)**

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

Sample Point 120 [ INDICATOR - NNE @ 0.46 miles ]

Sample ID:	Sample Dates:	Nuclide	Activity	1 Sigma Error	LLD
249235	12/3/2012 - 12/10/2012	K-40	<4.19E-01	0.00E+00	4.19E-01
249433	12/10/2012 - 12/17/2012	I-131	<4.10E-03	0.00E+00	4.10E-03
		Cs-134	<6.24E-03	0.00E+00	6.24E-03
		Cs-137	<9.07E-03	0.00E+00	9.07E-03
		Be-7	<8.34E-02	0.00E+00	8.34E-02
		K-40	3.18E-01	1.05E-01	1.65E-01
249860	12/17/2012 - 12/24/2012	I-131	<9.18E-03	0.00E+00	9.18E-03
		Cs-134	<8.99E-03	0.00E+00	8.99E-03
		Cs-137	<1.11E-02	0.00E+00	1.11E-02
		Be-7	<6.63E-02	0.00E+00	6.63E-02
		K-40	2.23E-01	8.98E-02	5.71E-02
250167	12/24/2012 - 12/31/2012	I-131	<7.41E-03	0.00E+00	7.41E-03
		Cs-134	<8.39E-03	0.00E+00	8.39E-03
		Cs-137	<9.53E-03	0.00E+00	9.53E-03
		Be-7	<6.88E-02	0.00E+00	6.88E-02
		K-40	2.33E-01	8.95E-02	1.77E-01

Sample Point 121 [ INDICATOR - NE @ 0.47 miles ]

Sample ID:	Sample Dates:	Nuclide	Activity	1 Sigma Error	LLD
227169	1/3/2012 - 1/9/2012	I-131	<1.11E-02	0.00E+00	1.11E-02
		Cs-134	<1.09E-02	0.00E+00	1.09E-02
		Cs-137	<9.09E-03	0.00E+00	9.09E-03
		Be-7	<7.80E-02	0.00E+00	7.80E-02
		K-40	4.61E-01	1.05E-01	1.42E-01
227302	1/9/2012 - 1/16/2012	I-131	<8.25E-03	0.00E+00	8.25E-03
		Cs-134	<1.34E-02	0.00E+00	1.34E-02
		Cs-137	<2.85E-03	0.00E+00	2.85E-03
		Be-7	<8.07E-02	0.00E+00	8.07E-02
		K-40	3.74E-01	8.58E-02	5.32E-02
227517	1/16/2012 - 1/23/2012	I-131	<7.74E-03	0.00E+00	7.74E-03
		Cs-134	<9.98E-03	0.00E+00	9.98E-03
		Cs-137	<1.06E-02	0.00E+00	1.06E-02
		Be-7	<8.34E-02	0.00E+00	8.34E-02
		K-40	4.00E-01	7.30E-02	1.61E-01
227839	1/23/2012 - 1/30/2012	I-131	<9.68E-03	0.00E+00	9.68E-03
		Cs-134	<1.37E-02	0.00E+00	1.37E-02
		Cs-137	<1.36E-02	0.00E+00	1.36E-02
		Be-7	<7.08E-02	0.00E+00	7.08E-02
		K-40	<3.77E-01	0.00E+00	3.77E-01
228106	1/30/2012 - 2/6/2012	I-131	<4.30E-03	0.00E+00	4.30E-03
		Cs-134	<9.27E-03	0.00E+00	9.27E-03
		Cs-137	<1.09E-02	0.00E+00	1.09E-02
		Be-7	<6.42E-02	0.00E+00	6.42E-02
		K-40	3.80E-01	7.07E-02	9.37E-02
229417	2/6/2012 - 2/13/2012	I-131	<1.00E-02	0.00E+00	1.00E-02
		Cs-134	<1.16E-02	0.00E+00	1.16E-02
		Cs-137	<1.02E-02	0.00E+00	1.02E-02
		Be-7	<7.49E-02	0.00E+00	7.49E-02
		K-40	5.60E-01	9.12E-02	1.26E-01
230043	2/13/2012 - 2/20/2012	I-131	<1.28E-02	0.00E+00	1.28E-02
		Cs-134	<1.42E-02	0.00E+00	1.42E-02
		Cs-137	<1.35E-02	0.00E+00	1.35E-02



**MCGUIRE Radiological Environmental Monitoring Analysis Report - 2012 (Appendix E)**

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

Sample Point 121 [ INDICATOR - NE @ 0.47 miles ]

Sample ID:	Sample Dates:	Nuclide	Activity	1 Sigma Error	LLD
230043	2/13/2012 - 2/20/2012	Be-7	<8.12E-02	0.00E+00	8.12E-02
		K-40	5.59E-01	1.14E-01	6.30E-02
230718	2/20/2012 - 2/27/2012	I-131	<9.76E-03	0.00E+00	9.76E-03
		Cs-134	<1.17E-02	0.00E+00	1.17E-02
		Cs-137	<1.45E-02	0.00E+00	1.45E-02
		Be-7	<9.16E-02	0.00E+00	9.16E-02
		K-40	1.83E-01	8.52E-02	1.64E-01
230927	2/27/2012 - 3/5/2012	I-131	<8.83E-03	0.00E+00	8.83E-03
		Cs-134	<8.82E-03	0.00E+00	8.82E-03
		Cs-137	<8.20E-03	0.00E+00	8.20E-03
		Be-7	<7.58E-02	0.00E+00	7.58E-02
		K-40	3.49E-01	8.32E-02	1.20E-01
231637	3/5/2012 - 3/12/2012	I-131	<1.21E-02	0.00E+00	1.21E-02
		Cs-134	<1.23E-02	0.00E+00	1.23E-02
		Cs-137	<2.07E-02	0.00E+00	2.07E-02
		Be-7	<1.04E-01	0.00E+00	1.04E-01
		K-40	3.14E-01	1.17E-01	2.12E-01
232451	3/12/2012 - 3/19/2012	I-131	<7.52E-03	0.00E+00	7.52E-03
		Cs-134	<7.15E-03	0.00E+00	7.15E-03
		Cs-137	<9.50E-03	0.00E+00	9.50E-03
		Be-7	<6.20E-02	0.00E+00	6.20E-02
		K-40	3.18E-01	8.61E-02	1.22E-01
233291	3/19/2012 - 3/26/2012	I-131	<9.24E-03	0.00E+00	9.24E-03
		Cs-134	<1.05E-02	0.00E+00	1.05E-02
		Cs-137	<9.29E-03	0.00E+00	9.29E-03
		Be-7	<5.57E-02	0.00E+00	5.57E-02
		K-40	5.90E-01	8.70E-02	1.81E-01
233532	3/26/2012 - 4/2/2012	I-131	<8.98E-03	0.00E+00	8.98E-03
		Cs-134	<1.05E-02	0.00E+00	1.05E-02
		Cs-137	<1.21E-02	0.00E+00	1.21E-02
		Be-7	<7.31E-02	0.00E+00	7.31E-02
		K-40	<4.01E-01	0.00E+00	4.01E-01
234450	4/2/2012 - 4/9/2012	I-131	<9.09E-03	0.00E+00	9.09E-03
		Cs-134	<1.12E-02	0.00E+00	1.12E-02
		Cs-137	<1.40E-02	0.00E+00	1.40E-02
		Be-7	<7.43E-02	0.00E+00	7.43E-02
		K-40	<3.45E-01	0.00E+00	3.45E-01
234877	4/9/2012 - 4/16/2012	I-131	<9.50E-03	0.00E+00	9.50E-03
		Cs-134	<1.15E-02	0.00E+00	1.15E-02
		Cs-137	<1.06E-02	0.00E+00	1.06E-02
		Be-7	<8.47E-02	0.00E+00	8.47E-02
		K-40	4.00E-01	7.30E-02	1.46E-01
235200	4/16/2012 - 4/23/2012	I-131	<1.04E-02	0.00E+00	1.04E-02
		Cs-134	<1.13E-02	0.00E+00	1.13E-02
		Cs-137	<1.34E-02	0.00E+00	1.34E-02
		Be-7	<9.08E-02	0.00E+00	9.08E-02
		K-40	3.46E-01	8.94E-02	1.66E-01
235385	4/23/2012 - 4/30/2012	I-131	<8.39E-03	0.00E+00	8.39E-03
		Cs-134	<8.38E-03	0.00E+00	8.38E-03
		Cs-137	<1.11E-02	0.00E+00	1.11E-02
		Be-7	<5.32E-02	0.00E+00	5.32E-02



**MCGUIRE Radiological Environmental Monitoring Analysis Report - 2012 (Appendix E)**

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

Sample Point 121 [ INDICATOR - NE @ 0.47 miles ]

Sample ID:	Sample Dates:	Nuclide	Activity	1 Sigma Error	LLD
235385	4/23/2012 - 4/30/2012	K-40	<3.58E-01	0.00E+00	3.58E-01
235723	4/30/2012 - 5/7/2012	I-131	<8.80E-03	0.00E+00	8.80E-03
		Cs-134	<9.22E-03	0.00E+00	9.22E-03
		Cs-137	<1.09E-02	0.00E+00	1.09E-02
		Be-7	<5.42E-02	0.00E+00	5.42E-02
		K-40	2.58E-01	9.37E-02	1.84E-01
235969	5/7/2012 - 5/14/2012	I-131	<9.26E-03	0.00E+00	9.26E-03
		Cs-134	<4.73E-03	0.00E+00	4.73E-03
		Cs-137	<1.71E-02	0.00E+00	1.71E-02
		Be-7	<9.64E-02	0.00E+00	9.64E-02
		K-40	4.82E-01	1.05E-01	1.69E-01
236179	5/14/2012 - 5/21/2012	I-131	<2.51E-03	0.00E+00	2.51E-03
		Cs-134	<1.04E-02	0.00E+00	1.04E-02
		Cs-137	<1.50E-02	0.00E+00	1.50E-02
		Be-7	<7.05E-02	0.00E+00	7.05E-02
		K-40	<3.96E-01	0.00E+00	3.96E-01
236492	5/21/2012 - 5/29/2012	I-131	<7.44E-03	0.00E+00	7.44E-03
		Cs-134	<9.48E-03	0.00E+00	9.48E-03
		Cs-137	<1.37E-02	0.00E+00	1.37E-02
		Be-7	<5.15E-02	0.00E+00	5.15E-02
		K-40	2.49E-01	6.43E-02	4.49E-02
236791	5/29/2012 - 6/4/2012	I-131	<1.23E-02	0.00E+00	1.23E-02
		Cs-134	<1.58E-02	0.00E+00	1.58E-02
		Cs-137	<1.78E-02	0.00E+00	1.78E-02
		Be-7	<8.55E-02	0.00E+00	8.55E-02
		K-40	<6.28E-01	0.00E+00	6.28E-01
237117	6/4/2012 - 6/11/2012	I-131	<9.44E-03	0.00E+00	9.44E-03
		Cs-134	<2.66E-03	0.00E+00	2.66E-03
		Cs-137	<1.26E-02	0.00E+00	1.26E-02
		Be-7	<6.78E-02	0.00E+00	6.78E-02
		K-40	<4.24E-01	0.00E+00	4.24E-01
237292	6/11/2012 - 6/18/2012	I-131	<8.48E-03	0.00E+00	8.48E-03
		Cs-134	<1.64E-02	0.00E+00	1.64E-02
		Cs-137	<1.87E-02	0.00E+00	1.87E-02
		Be-7	<1.14E-01	0.00E+00	1.14E-01
		K-40	3.12E-01	1.11E-01	2.44E-01
237968	6/18/2012 - 6/25/2012	I-131	<7.36E-03	0.00E+00	7.36E-03
		Cs-134	<1.24E-02	0.00E+00	1.24E-02
		Cs-137	<1.39E-02	0.00E+00	1.39E-02
		Be-7	<8.42E-02	0.00E+00	8.42E-02
		K-40	4.69E-01	7.81E-02	1.83E-01
238720	6/25/2012 - 7/2/2012	I-131	<8.01E-03	0.00E+00	8.01E-03
		Cs-134	<8.80E-03	0.00E+00	8.80E-03
		Cs-137	<1.04E-02	0.00E+00	1.04E-02
		Be-7	<8.26E-02	0.00E+00	8.26E-02
		K-40	4.48E-01	8.93E-02	1.44E-01
239097	7/2/2012 - 7/9/2012	I-131	<9.88E-03	0.00E+00	9.88E-03
		Cs-134	<1.18E-02	0.00E+00	1.18E-02
		Cs-137	<1.50E-02	0.00E+00	1.50E-02
		Be-7	<7.28E-02	0.00E+00	7.28E-02



# MCGUIRE Radiological Environmental Monitoring Analysis Report - 2012 (Appendix E)

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

Sample Point 121 [ INDICATOR - NE @ 0.47 miles ]

Sample ID:	Sample Dates:	Nuclide	Activity	1 Sigma Error	LLD
239097	7/2/2012 - 7/9/2012	K-40	2.96E-01	7.92E-02	1.80E-01
239868	7/9/2012 - 7/16/2012	I-131	<1.30E-02	0.00E+00	1.30E-02
		Cs-134	<7.73E-03	0.00E+00	7.73E-03
		Cs-137	<1.64E-02	0.00E+00	1.64E-02
		Be-7	<6.82E-02	0.00E+00	6.82E-02
		K-40	<5.32E-01	0.00E+00	5.32E-01
239993	7/16/2012 - 7/23/2012	I-131	<7.78E-03	0.00E+00	7.78E-03
		Cs-134	<1.02E-02	0.00E+00	1.02E-02
		Cs-137	<1.09E-02	0.00E+00	1.09E-02
		Be-7	<8.25E-02	0.00E+00	8.25E-02
		K-40	3.18E-01	7.69E-02	9.33E-02
240313	7/23/2012 - 7/30/2012	I-131	<6.00E-03	0.00E+00	6.00E-03
		Cs-134	<9.86E-03	0.00E+00	9.86E-03
		Cs-137	<1.39E-02	0.00E+00	1.39E-02
		Be-7	<8.61E-02	0.00E+00	8.61E-02
		K-40	2.40E-01	6.81E-02	1.29E-01
240950	7/30/2012 - 8/6/2012	I-131	<7.89E-03	0.00E+00	7.89E-03
		Cs-134	<8.52E-03	0.00E+00	8.52E-03
		Cs-137	<8.70E-03	0.00E+00	8.70E-03
		Be-7	<5.07E-02	0.00E+00	5.07E-02
		K-40	4.51E-01	7.74E-02	3.59E-02
241221	8/6/2012 - 8/13/2012	I-131	<8.48E-03	0.00E+00	8.48E-03
		Cs-134	<1.03E-02	0.00E+00	1.03E-02
		Cs-137	<1.87E-02	0.00E+00	1.87E-02
		Be-7	<8.51E-02	0.00E+00	8.51E-02
		K-40	3.87E-01	7.45E-02	1.05E-01
241528	8/13/2012 - 8/20/2012	I-131	<9.27E-03	0.00E+00	9.27E-03
		Cs-134	<1.24E-02	0.00E+00	1.24E-02
		Cs-137	<1.39E-02	0.00E+00	1.39E-02
		Be-7	<8.01E-02	0.00E+00	8.01E-02
		K-40	<3.64E-01	0.00E+00	3.64E-01
242117	8/20/2012 - 8/27/2012	I-131	<1.08E-02	0.00E+00	1.08E-02
		Cs-134	<7.35E-03	0.00E+00	7.35E-03
		Cs-137	<1.28E-02	0.00E+00	1.28E-02
		Be-7	<7.94E-02	0.00E+00	7.94E-02
		K-40	3.98E-01	9.58E-02	1.05E-01
242446	8/27/2012 - 9/4/2012	I-131	<8.82E-03	0.00E+00	8.82E-03
		Cs-134	<9.15E-03	0.00E+00	9.15E-03
		Cs-137	<1.26E-02	0.00E+00	1.26E-02
		Be-7	<6.25E-02	0.00E+00	6.25E-02
		K-40	2.52E-01	6.97E-02	8.80E-02
242973	9/4/2012 - 9/10/2012	I-131	<6.80E-03	0.00E+00	6.80E-03
		Cs-134	<8.76E-03	0.00E+00	8.76E-03
		Cs-137	<1.66E-02	0.00E+00	1.66E-02
		Be-7	<1.10E-01	0.00E+00	1.10E-01
		K-40	<5.70E-01	0.00E+00	5.70E-01
243731	9/10/2012 - 9/17/2012	I-131	<8.91E-03	0.00E+00	8.91E-03
		Cs-134	<1.34E-02	0.00E+00	1.34E-02
		Cs-137	<1.21E-02	0.00E+00	1.21E-02
		Be-7	<6.14E-02	0.00E+00	6.14E-02



**MCGUIRE Radiological Environmental Monitoring Analysis Report - 2012 (Appendix E)**

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

Sample Point 121 [ INDICATOR - NE @ 0.47 miles ]

Sample ID:	Sample Dates:	Nuclide	Activity	1 Sigma Error	LLD
243731	9/10/2012 - 9/17/2012	K-40	<4.15E-01	0.00E+00	4.15E-01
244136	9/17/2012 - 9/24/2012	I-131	<7.24E-03	0.00E+00	7.24E-03
		Cs-134	<7.65E-03	0.00E+00	7.65E-03
		Cs-137	<1.15E-02	0.00E+00	1.15E-02
		Be-7	<5.11E-02	0.00E+00	5.11E-02
		K-40	<3.73E-01	0.00E+00	3.73E-01
245009	9/24/2012 - 10/1/2012	I-131	<7.54E-03	0.00E+00	7.54E-03
		Cs-134	<9.19E-03	0.00E+00	9.19E-03
		Cs-137	<1.10E-02	0.00E+00	1.10E-02
		Be-7	<5.82E-02	0.00E+00	5.82E-02
		K-40	1.56E-01	8.64E-02	1.88E-01
245829	10/1/2012 - 10/8/2012	I-131	<1.26E-02	0.00E+00	1.26E-02
		Cs-134	<1.28E-02	0.00E+00	1.28E-02
		Cs-137	<1.89E-02	0.00E+00	1.89E-02
		Be-7	<8.76E-02	0.00E+00	8.76E-02
		K-40	2.34E-01	7.40E-02	2.10E-01
246684	10/8/2012 - 10/15/2012	I-131	<9.04E-03	0.00E+00	9.04E-03
		Cs-134	<9.27E-03	0.00E+00	9.27E-03
		Cs-137	<9.14E-03	0.00E+00	9.14E-03
		Be-7	<4.51E-02	0.00E+00	4.51E-02
		K-40	3.49E-01	8.46E-02	1.82E-01
247092	10/15/2012 - 10/22/2012	I-131	<1.29E-02	0.00E+00	1.29E-02
		Cs-134	<1.52E-02	0.00E+00	1.52E-02
		Cs-137	<1.68E-02	0.00E+00	1.68E-02
		Be-7	<1.07E-01	0.00E+00	1.07E-01
		K-40	2.61E-01	7.88E-02	2.80E-01
247408	10/22/2012 - 10/29/2012	I-131	<8.04E-03	0.00E+00	8.04E-03
		Cs-134	<8.44E-03	0.00E+00	8.44E-03
		Cs-137	<9.58E-03	0.00E+00	9.58E-03
		Be-7	<4.61E-02	0.00E+00	4.61E-02
		K-40	<3.70E-01	0.00E+00	3.70E-01
247746	10/29/2012 - 11/5/2012	I-131	<4.23E-03	0.00E+00	4.23E-03
		Cs-134	<6.56E-03	0.00E+00	6.56E-03
		Cs-137	<4.79E-03	0.00E+00	4.79E-03
		Be-7	<4.75E-02	0.00E+00	4.75E-02
		K-40	3.39E-01	9.06E-02	1.75E-01
247941	11/5/2012 - 11/12/2012	I-131	<1.07E-02	0.00E+00	1.07E-02
		Cs-134	<7.79E-03	0.00E+00	7.79E-03
		Cs-137	<9.23E-03	0.00E+00	9.23E-03
		Be-7	<9.95E-02	0.00E+00	9.95E-02
		K-40	3.62E-01	7.09E-02	1.04E-01
248345	11/12/2012 - 11/19/2012	I-131	<5.80E-03	0.00E+00	5.80E-03
		Cs-134	<8.22E-03	0.00E+00	8.22E-03
		Cs-137	<1.29E-02	0.00E+00	1.29E-02
		Be-7	<6.96E-02	0.00E+00	6.96E-02
		K-40	4.31E-01	9.63E-02	5.82E-02
248624	11/19/2012 - 11/26/2012	I-131	<7.88E-03	0.00E+00	7.88E-03
		Cs-134	<8.64E-03	0.00E+00	8.64E-03
		Cs-137	<6.68E-03	0.00E+00	6.68E-03
		Be-7	<5.95E-02	0.00E+00	5.95E-02



**MCGUIRE Radiological Environmental Monitoring Analysis Report - 2012 (Appendix E)**

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

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

Sample ID:	Sample Dates:	Nuclide	Activity	1 Sigma Error	LLD
248624	11/19/2012 - 11/26/2012	K-40	2.75E-01	7.62E-02	5.71E-02
248997	11/26/2012 - 12/3/2012	I-131	<7.93E-03	0.00E+00	7.93E-03
		Cs-134	<1.43E-02	0.00E+00	1.43E-02
		Cs-137	<1.11E-02	0.00E+00	1.11E-02
		Be-7	<9.04E-02	0.00E+00	9.04E-02
		K-40	<4.26E-01	0.00E+00	4.26E-01
249236	12/3/2012 - 12/10/2012	I-131	<8.55E-03	0.00E+00	8.55E-03
		Cs-134	<8.58E-03	0.00E+00	8.58E-03
		Cs-137	<1.40E-02	0.00E+00	1.40E-02
		Be-7	<6.52E-02	0.00E+00	6.52E-02
		K-40	3.22E-01	6.71E-02	1.03E-01
249434	12/10/2012 - 12/17/2012	I-131	<7.08E-03	0.00E+00	7.08E-03
		Cs-134	<6.50E-03	0.00E+00	6.50E-03
		Cs-137	<1.32E-02	0.00E+00	1.32E-02
		Be-7	<5.97E-02	0.00E+00	5.97E-02
		K-40	2.60E-01	7.52E-02	5.86E-02
249861	12/17/2012 - 12/24/2012	I-131	<9.81E-03	0.00E+00	9.81E-03
		Cs-134	<1.24E-02	0.00E+00	1.24E-02
		Cs-137	<1.26E-02	0.00E+00	1.26E-02
		Be-7	<1.02E-01	0.00E+00	1.02E-01
		K-40	4.16E-01	7.72E-02	1.34E-01
250168	12/24/2012 - 12/31/2012	I-131	<1.06E-02	0.00E+00	1.06E-02
		Cs-134	<1.10E-02	0.00E+00	1.10E-02
		Cs-137	<1.82E-02	0.00E+00	1.82E-02
		Be-7	<7.08E-02	0.00E+00	7.08E-02
		K-40	3.72E-01	9.03E-02	5.92E-02

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

Sample ID:	Sample Dates:	Nuclide	Activity	1 Sigma Error	LLD
227170	1/3/2012 - 1/9/2012	I-131	<9.47E-03	0.00E+00	9.47E-03
		Cs-134	<1.30E-02	0.00E+00	1.30E-02
		Cs-137	<1.50E-02	0.00E+00	1.50E-02
		Be-7	<6.78E-02	0.00E+00	6.78E-02
		K-40	4.38E-01	8.14E-02	4.08E-02
227303	1/9/2012 - 1/16/2012	I-131	<1.09E-02	0.00E+00	1.09E-02
		Cs-134	<1.50E-02	0.00E+00	1.50E-02
		Cs-137	<1.71E-02	0.00E+00	1.71E-02
		Be-7	<7.76E-02	0.00E+00	7.76E-02
		K-40	<4.69E-01	0.00E+00	4.69E-01
227518	1/16/2012 - 1/23/2012	I-131	<7.38E-03	0.00E+00	7.38E-03
		Cs-134	<9.46E-03	0.00E+00	9.46E-03
		Cs-137	<9.51E-03	0.00E+00	9.51E-03
		Be-7	<9.31E-02	0.00E+00	9.31E-02
		K-40	3.26E-01	7.91E-02	1.78E-01
227840	1/23/2012 - 1/30/2012	I-131	<8.08E-03	0.00E+00	8.08E-03
		Cs-134	<7.75E-03	0.00E+00	7.75E-03
		Cs-137	<9.90E-03	0.00E+00	9.90E-03
		Be-7	<6.31E-02	0.00E+00	6.31E-02
		K-40	2.96E-01	6.32E-02	3.64E-02
228107	1/30/2012 - 2/6/2012	I-131	<1.02E-02	0.00E+00	1.02E-02
		Cs-134	<1.27E-02	0.00E+00	1.27E-02
		Cs-137	<1.48E-02	0.00E+00	1.48E-02



**MCGUIRE Radiological Environmental Monitoring Analysis Report - 2012 (Appendix E)**

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

Sample Point 125 [ INDICATOR - SW @ 0.38 miles ]

Sample ID:	Sample Dates:	Nuclide	Activity	1 Sigma Error	LLD
228107	1/30/2012 - 2/6/2012	Be-7	<6.57E-02	0.00E+00	6.57E-02
		K-40	3.34E-01	1.12E-01	1.94E-01
229418	2/6/2012 - 2/13/2012	I-131	<7.36E-03	0.00E+00	7.36E-03
		Cs-134	<1.24E-02	0.00E+00	1.24E-02
		Cs-137	<1.41E-02	0.00E+00	1.41E-02
		Be-7	<5.14E-02	0.00E+00	5.14E-02
		K-40	5.69E-01	8.67E-02	9.50E-02
230044	2/13/2012 - 2/20/2012	I-131	<1.11E-02	0.00E+00	1.11E-02
		Cs-134	<1.52E-02	0.00E+00	1.52E-02
		Cs-137	<1.51E-02	0.00E+00	1.51E-02
		Be-7	<7.41E-02	0.00E+00	7.41E-02
		K-40	4.77E-01	1.29E-01	1.67E-01
230719	2/20/2012 - 2/27/2012	I-131	<8.62E-03	0.00E+00	8.62E-03
		Cs-134	<1.05E-02	0.00E+00	1.05E-02
		Cs-137	<1.41E-02	0.00E+00	1.41E-02
		Be-7	<6.10E-02	0.00E+00	6.10E-02
		K-40	3.06E-01	9.30E-02	1.46E-01
230928	2/27/2012 - 3/5/2012	I-131	<8.36E-03	0.00E+00	8.36E-03
		Cs-134	<8.30E-03	0.00E+00	8.30E-03
		Cs-137	<7.45E-03	0.00E+00	7.45E-03
		Be-7	<1.12E-01	0.00E+00	1.12E-01
		K-40	2.81E-01	9.14E-02	2.09E-01
231638	3/5/2012 - 3/12/2012	I-131	<1.21E-02	0.00E+00	1.21E-02
		Cs-134	<1.62E-02	0.00E+00	1.62E-02
		Cs-137	<1.42E-02	0.00E+00	1.42E-02
		Be-7	<1.13E-01	0.00E+00	1.13E-01
		K-40	5.69E-01	1.16E-01	6.41E-02
232452	3/12/2012 - 3/19/2012	I-131	<9.62E-03	0.00E+00	9.62E-03
		Cs-134	<1.18E-02	0.00E+00	1.18E-02
		Cs-137	<7.29E-03	0.00E+00	7.29E-03
		Be-7	<5.66E-02	0.00E+00	5.66E-02
		K-40	<3.76E-01	0.00E+00	3.76E-01
233292	3/19/2012 - 3/26/2012	I-131	<7.02E-03	0.00E+00	7.02E-03
		Cs-134	<7.98E-03	0.00E+00	7.98E-03
		Cs-137	<1.18E-02	0.00E+00	1.18E-02
		Be-7	4.87E-02	1.80E-02	4.49E-02
		K-40	3.53E-01	7.54E-02	1.47E-01
233533	3/26/2012 - 4/2/2012	I-131	<6.61E-03	0.00E+00	6.61E-03
		Cs-134	<7.98E-03	0.00E+00	7.98E-03
		Cs-137	<9.00E-03	0.00E+00	9.00E-03
		Be-7	<6.84E-02	0.00E+00	6.84E-02
		K-40	3.76E-01	6.99E-02	3.51E-02
234451	4/2/2012 - 4/9/2012	I-131	<8.52E-03	0.00E+00	8.52E-03
		Cs-134	<1.08E-02	0.00E+00	1.08E-02
		Cs-137	<1.02E-02	0.00E+00	1.02E-02
		Be-7	<8.06E-02	0.00E+00	8.06E-02
		K-40	4.14E-01	7.56E-02	1.49E-01
234878	4/9/2012 - 4/16/2012	I-131	<1.36E-02	0.00E+00	1.36E-02
		Cs-134	<1.26E-02	0.00E+00	1.26E-02
		Cs-137	<1.94E-02	0.00E+00	1.94E-02
		Be-7	<8.75E-02	0.00E+00	8.75E-02



# MCGUIRE Radiological Environmental Monitoring Analysis Report - 2012 (Appendix E)

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

Sample Point 125 [ INDICATOR - SW @ 0.38 miles ]

Sample ID:	Sample Dates:	Nuclide	Activity	1 Sigma Error	LLD
234878	4/9/2012 - 4/16/2012	K-40	<4.89E-01	0.00E+00	4.89E-01
235201	4/16/2012 - 4/23/2012	I-131	<1.05E-02	0.00E+00	1.05E-02
		Cs-134	<1.21E-02	0.00E+00	1.21E-02
		Cs-137	<3.30E-03	0.00E+00	3.30E-03
		Be-7	<7.84E-02	0.00E+00	7.84E-02
		K-40	4.56E-01	1.02E-01	6.16E-02
235386	4/23/2012 - 4/30/2012	I-131	<8.09E-03	0.00E+00	8.09E-03
		Cs-134	<7.96E-03	0.00E+00	7.96E-03
		Cs-137	<1.30E-02	0.00E+00	1.30E-02
		Be-7	<4.69E-02	0.00E+00	4.69E-02
		K-40	3.24E-01	7.86E-02	5.15E-02
235724	4/30/2012 - 5/7/2012	I-131	<8.58E-03	0.00E+00	8.58E-03
		Cs-134	<7.71E-03	0.00E+00	7.71E-03
		Cs-137	<1.34E-02	0.00E+00	1.34E-02
		Be-7	<9.10E-02	0.00E+00	9.10E-02
		K-40	4.66E-01	1.04E-01	6.29E-02
235970	5/7/2012 - 5/14/2012	I-131	<1.61E-02	0.00E+00	1.61E-02
		Cs-134	<1.42E-02	0.00E+00	1.42E-02
		Cs-137	<9.76E-03	0.00E+00	9.76E-03
		Be-7	<1.28E-01	0.00E+00	1.28E-01
		K-40	3.04E-01	1.01E-01	2.10E-01
236180	5/14/2012 - 5/21/2012	I-131	<7.34E-03	0.00E+00	7.34E-03
		Cs-134	<1.07E-02	0.00E+00	1.07E-02
		Cs-137	<1.07E-02	0.00E+00	1.07E-02
		Be-7	<8.71E-02	0.00E+00	8.71E-02
		K-40	<3.69E-01	0.00E+00	3.69E-01
236493	5/21/2012 - 5/29/2012	I-131	<1.04E-02	0.00E+00	1.04E-02
		Cs-134	<1.12E-02	0.00E+00	1.12E-02
		Cs-137	<1.51E-02	0.00E+00	1.51E-02
		Be-7	<9.21E-02	0.00E+00	9.21E-02
		K-40	2.78E-01	7.42E-02	2.08E-01
236792	5/29/2012 - 6/4/2012	I-131	<1.28E-02	0.00E+00	1.28E-02
		Cs-134	<1.27E-02	0.00E+00	1.27E-02
		Cs-137	<1.46E-02	0.00E+00	1.46E-02
		Be-7	<8.59E-02	0.00E+00	8.59E-02
		K-40	6.81E-01	1.22E-01	1.73E-01
237118	6/4/2012 - 6/11/2012	I-131	<1.18E-02	0.00E+00	1.18E-02
		Cs-134	<1.37E-02	0.00E+00	1.37E-02
		Cs-137	<1.75E-02	0.00E+00	1.75E-02
		Be-7	<1.06E-01	0.00E+00	1.06E-01
		K-40	5.13E-01	1.09E-01	2.10E-01
237293	6/11/2012 - 6/18/2012	I-131	<1.09E-02	0.00E+00	1.09E-02
		Cs-134	<1.22E-02	0.00E+00	1.22E-02
		Cs-137	<1.63E-02	0.00E+00	1.63E-02
		Be-7	<7.81E-02	0.00E+00	7.81E-02
		K-40	4.81E-01	1.10E-01	2.66E-01
237969	6/18/2012 - 6/25/2012	I-131	<1.18E-02	0.00E+00	1.18E-02
		Cs-134	<1.15E-02	0.00E+00	1.15E-02
		Cs-137	<1.71E-02	0.00E+00	1.71E-02
		Be-7	<9.49E-02	0.00E+00	9.49E-02





**MCGUIRE Radiological Environmental Monitoring Analysis Report - 2012 (Appendix E)**

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

Sample Point 125 [ INDICATOR - SW @ 0.38 miles ]

Sample ID:	Sample Dates:	Nuclide	Activity	1 Sigma Error	LLD
237969	6/18/2012 - 6/25/2012	K-40	2.89E-01	7.71E-02	5.57E-02
238721	6/25/2012 - 7/2/2012	I-131	<1.40E-02	0.00E+00	1.40E-02
		Cs-134	<1.51E-02	0.00E+00	1.51E-02
		Cs-137	<1.68E-02	0.00E+00	1.68E-02
		Be-7	<7.93E-02	0.00E+00	7.93E-02
		K-40	2.25E-01	9.78E-02	2.64E-01
239098	7/2/2012 - 7/9/2012	I-131	<1.13E-02	0.00E+00	1.13E-02
		Cs-134	<1.03E-02	0.00E+00	1.03E-02
		Cs-137	<1.61E-02	0.00E+00	1.61E-02
		Be-7	<9.44E-02	0.00E+00	9.44E-02
		K-40	3.40E-01	1.11E-01	1.75E-01
239869	7/9/2012 - 7/16/2012	I-131	<9.37E-03	0.00E+00	9.37E-03
		Cs-134	<1.07E-02	0.00E+00	1.07E-02
		Cs-137	<1.21E-02	0.00E+00	1.21E-02
		Be-7	<7.22E-02	0.00E+00	7.22E-02
		K-40	<3.35E-01	0.00E+00	3.35E-01
239994	7/16/2012 - 7/23/2012	I-131	<1.03E-02	0.00E+00	1.03E-02
		Cs-134	<1.10E-02	0.00E+00	1.10E-02
		Cs-137	<1.33E-02	0.00E+00	1.33E-02
		Be-7	<4.67E-02	0.00E+00	4.67E-02
		K-40	2.26E-01	9.70E-02	1.39E-01
240314	7/23/2012 - 7/30/2012	I-131	<7.03E-03	0.00E+00	7.03E-03
		Cs-134	<1.46E-02	0.00E+00	1.46E-02
		Cs-137	<1.61E-02	0.00E+00	1.61E-02
		Be-7	<6.38E-02	0.00E+00	6.38E-02
		K-40	<4.00E-01	0.00E+00	4.00E-01
240951	7/30/2012 - 8/6/2012	I-131	<1.33E-02	0.00E+00	1.33E-02
		Cs-134	<1.37E-02	0.00E+00	1.37E-02
		Cs-137	<1.81E-02	0.00E+00	1.81E-02
		Be-7	<8.47E-02	0.00E+00	8.47E-02
		K-40	5.56E-01	1.14E-01	2.69E-01
241222	8/6/2012 - 8/13/2012	I-131	<2.89E-03	0.00E+00	2.89E-03
		Cs-134	<1.14E-02	0.00E+00	1.14E-02
		Cs-137	<1.42E-02	0.00E+00	1.42E-02
		Be-7	<7.30E-02	0.00E+00	7.30E-02
		K-40	2.80E-01	1.02E-01	2.21E-01
241529	8/13/2012 - 8/20/2012	I-131	<1.39E-02	0.00E+00	1.39E-02
		Cs-134	<1.26E-02	0.00E+00	1.26E-02
		Cs-137	<1.79E-02	0.00E+00	1.79E-02
		Be-7	<1.31E-01	0.00E+00	1.31E-01
		K-40	2.18E-01	1.04E-01	6.13E-02
242118	8/20/2012 - 8/27/2012	I-131	<1.44E-02	0.00E+00	1.44E-02
		Cs-134	<1.82E-02	0.00E+00	1.82E-02
		Cs-137	<1.37E-02	0.00E+00	1.37E-02
		Be-7	<1.05E-01	0.00E+00	1.05E-01
		K-40	4.49E-01	1.03E-01	2.26E-01
242447	8/27/2012 - 9/4/2012	I-131	<9.69E-03	0.00E+00	9.69E-03
		Cs-134	<1.16E-02	0.00E+00	1.16E-02
		Cs-137	<1.46E-02	0.00E+00	1.46E-02
		Be-7	<5.90E-02	0.00E+00	5.90E-02



**MCGUIRE Radiological Environmental Monitoring Analysis Report - 2012 (Appendix E)**

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

Sample Point 125 [ INDICATOR - SW @ 0.38 miles ]

Sample ID:	Sample Dates:	Nuclide	Activity	1 Sigma Error	LLD
242447	8/27/2012 - 9/4/2012	K-40	<2.92E-01	0.00E+00	2.92E-01
242974	9/4/2012 - 9/10/2012	I-131	<7.04E-03	0.00E+00	7.04E-03
		Cs-134	<1.25E-02	0.00E+00	1.25E-02
		Cs-137	<8.83E-03	0.00E+00	8.83E-03
		Be-7	<5.22E-02	0.00E+00	5.22E-02
		K-40	3.49E-01	1.19E-01	1.85E-01
243732	9/10/2012 - 9/17/2012	I-131	<1.21E-02	0.00E+00	1.21E-02
		Cs-134	<1.27E-02	0.00E+00	1.27E-02
		Cs-137	<1.56E-02	0.00E+00	1.56E-02
		Be-7	<1.34E-01	0.00E+00	1.34E-01
		K-40	<5.55E-01	0.00E+00	5.55E-01
244137	9/17/2012 - 9/24/2012	I-131	<1.14E-02	0.00E+00	1.14E-02
		Cs-134	<1.34E-02	0.00E+00	1.34E-02
		Cs-137	<1.75E-02	0.00E+00	1.75E-02
		Be-7	<9.50E-02	0.00E+00	9.50E-02
		K-40	3.70E-01	9.55E-02	6.66E-02
245010	9/24/2012 - 10/1/2012	I-131	<4.40E-03	0.00E+00	4.40E-03
		Cs-134	<9.91E-03	0.00E+00	9.91E-03
		Cs-137	<1.13E-02	0.00E+00	1.13E-02
		Be-7	<6.77E-02	0.00E+00	6.77E-02
		K-40	2.76E-01	9.86E-02	1.49E-01
245830	10/1/2012 - 10/8/2012	I-131	<8.58E-03	0.00E+00	8.58E-03
		Cs-134	<5.37E-03	0.00E+00	5.37E-03
		Cs-137	<1.38E-02	0.00E+00	1.38E-02
		Be-7	<8.85E-02	0.00E+00	8.85E-02
		K-40	<3.74E-01	0.00E+00	3.74E-01
246685	10/8/2012 - 10/15/2012	I-131	<1.60E-02	0.00E+00	1.60E-02
		Cs-134	<1.24E-02	0.00E+00	1.24E-02
		Cs-137	<1.10E-02	0.00E+00	1.10E-02
		Be-7	<1.01E-01	0.00E+00	1.01E-01
		K-40	4.13E-01	1.21E-01	2.06E-01
247093	10/15/2012 - 10/22/2012	I-131	<1.10E-02	0.00E+00	1.10E-02
		Cs-134	<1.22E-02	0.00E+00	1.22E-02
		Cs-137	<1.78E-02	0.00E+00	1.78E-02
		Be-7	<1.06E-01	0.00E+00	1.06E-01
		K-40	2.84E-01	1.16E-01	2.17E-01
247409	10/22/2012 - 10/29/2012	I-131	<1.24E-02	0.00E+00	1.24E-02
		Cs-134	<9.50E-03	0.00E+00	9.50E-03
		Cs-137	<1.46E-02	0.00E+00	1.46E-02
		Be-7	<7.04E-02	0.00E+00	7.04E-02
		K-40	<4.37E-01	0.00E+00	4.37E-01
247747	10/29/2012 - 11/5/2012	I-131	<1.10E-02	0.00E+00	1.10E-02
		Cs-134	<1.20E-02	0.00E+00	1.20E-02
		Cs-137	<1.70E-02	0.00E+00	1.70E-02
		Be-7	<1.35E-01	0.00E+00	1.35E-01
		K-40	4.08E-01	9.90E-02	1.76E-01
247942	11/5/2012 - 11/12/2012	I-131	<8.14E-03	0.00E+00	8.14E-03
		Cs-134	<4.99E-03	0.00E+00	4.99E-03
		Cs-137	<1.10E-02	0.00E+00	1.10E-02
		Be-7	<6.98E-02	0.00E+00	6.98E-02



**MCGUIRE Radiological Environmental Monitoring Analysis Report - 2012 (Appendix E)**

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

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

Sample ID:	Sample Dates:	Nuclide	Activity	1 Sigma Error	LLD
247942	11/5/2012 - 11/12/2012	K-40	4.57E-01	8.12E-02	1.49E-01
248346	11/12/2012 - 11/19/2012	I-131	<9.38E-03	0.00E+00	9.38E-03
		Cs-134	<9.35E-03	0.00E+00	9.35E-03
		Cs-137	<1.44E-02	0.00E+00	1.44E-02
		Be-7	<6.70E-02	0.00E+00	6.70E-02
		K-40	6.35E-01	9.36E-02	3.73E-02
248625	11/19/2012 - 11/26/2012	I-131	<8.71E-03	0.00E+00	8.71E-03
		Cs-134	<1.03E-02	0.00E+00	1.03E-02
		Cs-137	<1.78E-02	0.00E+00	1.78E-02
		Be-7	<8.40E-02	0.00E+00	8.40E-02
		K-40	<2.47E-01	0.00E+00	2.47E-01
248998	11/26/2012 - 12/3/2012	I-131	<9.42E-03	0.00E+00	9.42E-03
		Cs-134	<9.66E-03	0.00E+00	9.66E-03
		Cs-137	<1.42E-02	0.00E+00	1.42E-02
		Be-7	<6.09E-02	0.00E+00	6.09E-02
		K-40	5.39E-01	8.52E-02	1.03E-01
249237	12/3/2012 - 12/10/2012	I-131	<8.34E-03	0.00E+00	8.34E-03
		Cs-134	<8.00E-03	0.00E+00	8.00E-03
		Cs-137	<9.45E-03	0.00E+00	9.45E-03
		Be-7	<6.13E-02	0.00E+00	6.13E-02
		K-40	2.58E-01	7.34E-02	1.43E-01
249435	12/10/2012 - 12/17/2012	I-131	<5.12E-03	0.00E+00	5.12E-03
		Cs-134	<7.23E-03	0.00E+00	7.23E-03
		Cs-137	<9.06E-03	0.00E+00	9.06E-03
		Be-7	<6.08E-02	0.00E+00	6.08E-02
		K-40	3.77E-01	1.04E-01	2.42E-01
249862	12/17/2012 - 12/24/2012	I-131	<1.36E-02	0.00E+00	1.36E-02
		Cs-134	<1.04E-02	0.00E+00	1.04E-02
		Cs-137	<1.53E-02	0.00E+00	1.53E-02
		Be-7	<1.02E-01	0.00E+00	1.02E-01
		K-40	3.48E-01	8.45E-02	5.54E-02
250169	12/24/2012 - 12/31/2012	I-131	<9.84E-03	0.00E+00	9.84E-03
		Cs-134	<9.37E-03	0.00E+00	9.37E-03
		Cs-137	<1.17E-02	0.00E+00	1.17E-02
		Be-7	<2.09E-02	0.00E+00	2.09E-02
		K-40	<3.81E-01	0.00E+00	3.81E-01

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

Sample ID:	Sample Dates:	Nuclide	Activity	1 Sigma Error	LLD
227194	1/3/2012 - 1/9/2012	I-131	<1.25E-02	0.00E+00	1.25E-02
		Cs-134	<1.35E-02	0.00E+00	1.35E-02
		Cs-137	<1.48E-02	0.00E+00	1.48E-02
		Be-7	<6.38E-02	0.00E+00	6.38E-02
		K-40	2.88E-01	7.98E-02	5.98E-02
227304	1/9/2012 - 1/16/2012	I-131	<9.46E-03	0.00E+00	9.46E-03
		Cs-134	<1.27E-02	0.00E+00	1.27E-02
		Cs-137	<1.20E-02	0.00E+00	1.20E-02
		Be-7	<1.05E-01	0.00E+00	1.05E-01
		K-40	<5.00E-01	0.00E+00	5.00E-01
227542	1/16/2012 - 1/23/2012	I-131	<9.75E-03	0.00E+00	9.75E-03
		Cs-134	<1.24E-02	0.00E+00	1.24E-02
		Cs-137	<9.67E-03	0.00E+00	9.67E-03



**MCGUIRE Radiological Environmental Monitoring Analysis Report - 2012 (Appendix E)**

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

Sample Point 133 [ INDICATOR - ENE @ 6.23 miles ]

Sample ID:	Sample Dates:	Nuclide	Activity	1 Sigma Error	LLD
227542	1/16/2012 - 1/23/2012	Be-7	<9.49E-02	0.00E+00	9.49E-02
		K-40	3.65E-01	9.14E-02	6.17E-02
227864	1/23/2012 - 1/30/2012	I-131	<8.14E-03	0.00E+00	8.14E-03
		Cs-134	<1.04E-02	0.00E+00	1.04E-02
		Cs-137	<1.44E-02	0.00E+00	1.44E-02
		Be-7	<1.20E-01	0.00E+00	1.20E-01
		K-40	2.70E-01	1.02E-01	6.28E-02
228131	1/30/2012 - 2/6/2012	I-131	<8.73E-03	0.00E+00	8.73E-03
		Cs-134	<1.02E-02	0.00E+00	1.02E-02
		Cs-137	<1.38E-02	0.00E+00	1.38E-02
		Be-7	<8.86E-02	0.00E+00	8.86E-02
		K-40	5.74E-01	1.11E-01	1.49E-01
229442	2/6/2012 - 2/13/2012	I-131	<1.09E-02	0.00E+00	1.09E-02
		Cs-134	<1.20E-02	0.00E+00	1.20E-02
		Cs-137	<1.44E-02	0.00E+00	1.44E-02
		Be-7	<8.38E-02	0.00E+00	8.38E-02
		K-40	4.05E-01	9.29E-02	1.86E-01
230068	2/13/2012 - 2/20/2012	I-131	<9.07E-03	0.00E+00	9.07E-03
		Cs-134	<1.17E-02	0.00E+00	1.17E-02
		Cs-137	<1.65E-02	0.00E+00	1.65E-02
		Be-7	<1.07E-01	0.00E+00	1.07E-01
		K-40	4.34E-01	9.96E-02	6.17E-02
230743	2/20/2012 - 2/27/2012	I-131	<9.78E-03	0.00E+00	9.78E-03
		Cs-134	<1.21E-02	0.00E+00	1.21E-02
		Cs-137	<1.46E-02	0.00E+00	1.46E-02
		Be-7	<1.20E-01	0.00E+00	1.20E-01
		K-40	2.96E-01	8.22E-02	6.16E-02
230952	2/27/2012 - 3/5/2012	I-131	<1.33E-02	0.00E+00	1.33E-02
		Cs-134	<1.27E-02	0.00E+00	1.27E-02
		Cs-137	<1.59E-02	0.00E+00	1.59E-02
		Be-7	<9.15E-02	0.00E+00	9.15E-02
		K-40	4.53E-01	1.01E-01	2.03E-01
231662	3/5/2012 - 3/12/2012	I-131	<9.36E-03	0.00E+00	9.36E-03
		Cs-134	<8.74E-03	0.00E+00	8.74E-03
		Cs-137	<1.38E-02	0.00E+00	1.38E-02
		Be-7	<9.51E-02	0.00E+00	9.51E-02
		K-40	4.27E-01	8.91E-02	1.18E-01
232476	3/12/2012 - 3/19/2012	I-131	<7.55E-03	0.00E+00	7.55E-03
		Cs-134	<1.05E-02	0.00E+00	1.05E-02
		Cs-137	<1.13E-02	0.00E+00	1.13E-02
		Be-7	<5.76E-02	0.00E+00	5.76E-02
		K-40	4.55E-01	1.07E-01	1.23E-01
233316	3/19/2012 - 3/26/2012	I-131	<1.27E-02	0.00E+00	1.27E-02
		Cs-134	<1.48E-02	0.00E+00	1.48E-02
		Cs-137	<1.62E-02	0.00E+00	1.62E-02
		Be-7	<9.78E-02	0.00E+00	9.78E-02
		K-40	3.22E-01	1.10E-01	1.72E-01
233557	3/26/2012 - 4/2/2012	I-131	<6.71E-03	0.00E+00	6.71E-03
		Cs-134	<5.95E-03	0.00E+00	5.95E-03
		Cs-137	<9.56E-03	0.00E+00	9.56E-03
		Be-7	<5.90E-02	0.00E+00	5.90E-02



**MCGUIRE Radiological Environmental Monitoring Analysis Report - 2012 (Appendix E)**

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

Sample Point 133 [ INDICATOR - ENE @ 6.23 miles ]

Sample ID:	Sample Dates:	Nuclide	Activity	1 Sigma Error	LLD
233557	3/26/2012 - 4/2/2012	K-40	2.51E-01	6.68E-02	1.12E-01
234475	4/2/2012 - 4/9/2012	I-131	<7.32E-03	0.00E+00	7.32E-03
		Cs-134	<7.76E-03	0.00E+00	7.76E-03
		Cs-137	<1.15E-02	0.00E+00	1.15E-02
		Be-7	<7.26E-02	0.00E+00	7.26E-02
		K-40	2.98E-01	7.27E-02	9.90E-02
234879	4/9/2012 - 4/16/2012	I-131	<1.14E-02	0.00E+00	1.14E-02
		Cs-134	<9.61E-03	0.00E+00	9.61E-03
		Cs-137	<1.61E-02	0.00E+00	1.61E-02
		Be-7	<9.75E-02	0.00E+00	9.75E-02
		K-40	<4.69E-01	0.00E+00	4.69E-01
235225	4/16/2012 - 4/23/2012	I-131	<8.65E-03	0.00E+00	8.65E-03
		Cs-134	<9.35E-03	0.00E+00	9.35E-03
		Cs-137	<1.05E-02	0.00E+00	1.05E-02
		Be-7	<7.29E-02	0.00E+00	7.29E-02
		K-40	<3.56E-01	0.00E+00	3.56E-01
235410	4/23/2012 - 4/30/2012	I-131	<1.41E-02	0.00E+00	1.41E-02
		Cs-134	<1.23E-02	0.00E+00	1.23E-02
		Cs-137	<1.72E-02	0.00E+00	1.72E-02
		Be-7	<1.04E-01	0.00E+00	1.04E-01
		K-40	3.87E-01	9.38E-02	6.15E-02
235748	4/30/2012 - 5/7/2012	I-131	<1.02E-02	0.00E+00	1.02E-02
		Cs-134	<1.22E-02	0.00E+00	1.22E-02
		Cs-137	<1.50E-02	0.00E+00	1.50E-02
		Be-7	<8.73E-02	0.00E+00	8.73E-02
		K-40	3.50E-01	8.24E-02	5.25E-02
235994	5/7/2012 - 5/14/2012	I-131	<9.53E-03	0.00E+00	9.53E-03
		Cs-134	<1.22E-02	0.00E+00	1.22E-02
		Cs-137	<1.27E-02	0.00E+00	1.27E-02
		Be-7	<5.88E-02	0.00E+00	5.88E-02
		K-40	7.03E-01	1.07E-01	1.18E-01
236204	5/14/2012 - 5/21/2012	I-131	<7.37E-03	0.00E+00	7.37E-03
		Cs-134	<6.82E-03	0.00E+00	6.82E-03
		Cs-137	<1.06E-02	0.00E+00	1.06E-02
		Be-7	<6.56E-02	0.00E+00	6.56E-02
		K-40	5.58E-01	9.57E-02	1.25E-01
236517	5/21/2012 - 5/29/2012	I-131	<1.02E-02	0.00E+00	1.02E-02
		Cs-134	<1.10E-02	0.00E+00	1.10E-02
		Cs-137	<1.12E-02	0.00E+00	1.12E-02
		Be-7	<5.61E-02	0.00E+00	5.61E-02
		K-40	2.93E-01	7.57E-02	1.64E-01
236816	5/29/2012 - 6/4/2012	I-131	<1.24E-02	0.00E+00	1.24E-02
		Cs-134	<1.47E-02	0.00E+00	1.47E-02
		Cs-137	<1.59E-02	0.00E+00	1.59E-02
		Be-7	<6.51E-02	0.00E+00	6.51E-02
		K-40	2.40E-01	1.02E-01	2.15E-01
237142	6/4/2012 - 6/11/2012	I-131	<9.47E-03	0.00E+00	9.47E-03
		Cs-134	<7.34E-03	0.00E+00	7.34E-03
		Cs-137	<9.03E-03	0.00E+00	9.03E-03
		Be-7	<6.87E-02	0.00E+00	6.87E-02



# MCGUIRE Radiological Environmental Monitoring Analysis Report - 2012 (Appendix E)

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

Sample Point 133 [ INDICATOR - ENE @ 6.23 miles ]

Sample ID:	Sample Dates:	Nuclide	Activity	1 Sigma Error	LLD
237142	6/4/2012 - 6/11/2012	K-40	6.67E-01	8.91E-02	3.22E-02
237317	6/11/2012 - 6/18/2012	I-131	<1.06E-02	0.00E+00	1.06E-02
		Cs-134	<1.02E-02	0.00E+00	1.02E-02
		Cs-137	<1.35E-02	0.00E+00	1.35E-02
		Be-7	<6.73E-02	0.00E+00	6.73E-02
		K-40	3.28E-01	7.96E-02	1.44E-01
237993	6/18/2012 - 6/25/2012	I-131	<7.98E-03	0.00E+00	7.98E-03
		Cs-134	<1.02E-02	0.00E+00	1.02E-02
		Cs-137	<1.46E-02	0.00E+00	1.46E-02
		Be-7	<9.52E-02	0.00E+00	9.52E-02
		K-40	5.53E-01	9.76E-02	1.50E-01
238745	6/25/2012 - 7/2/2012	I-131	<8.46E-03	0.00E+00	8.46E-03
		Cs-134	<8.93E-03	0.00E+00	8.93E-03
		Cs-137	<1.01E-02	0.00E+00	1.01E-02
		Be-7	<7.95E-02	0.00E+00	7.95E-02
		K-40	4.19E-01	8.08E-02	1.11E-01
239122	7/2/2012 - 7/9/2012	I-131	<9.70E-03	0.00E+00	9.70E-03
		Cs-134	<1.11E-02	0.00E+00	1.11E-02
		Cs-137	<1.61E-02	0.00E+00	1.61E-02
		Be-7	<8.21E-02	0.00E+00	8.21E-02
		K-40	<4.32E-01	0.00E+00	4.32E-01
239870	7/9/2012 - 7/16/2012	I-131	<1.11E-02	0.00E+00	1.11E-02
		Cs-134	<1.47E-02	0.00E+00	1.47E-02
		Cs-137	<1.83E-02	0.00E+00	1.83E-02
		Be-7	<8.82E-02	0.00E+00	8.82E-02
		K-40	3.92E-01	9.52E-02	3.13E-01
240018	7/16/2012 - 7/23/2012	I-131	<1.16E-02	0.00E+00	1.16E-02
		Cs-134	<1.46E-02	0.00E+00	1.46E-02
		Cs-137	<1.74E-02	0.00E+00	1.74E-02
		Be-7	<7.10E-02	0.00E+00	7.10E-02
		K-40	3.86E-01	9.37E-02	1.61E-01
240316	7/23/2012 - 7/30/2012	I-131	<9.65E-03	0.00E+00	9.65E-03
		Cs-134	<1.22E-02	0.00E+00	1.22E-02
		Cs-137	<1.48E-02	0.00E+00	1.48E-02
		Be-7	<9.19E-02	0.00E+00	9.19E-02
		K-40	<5.51E-01	0.00E+00	5.51E-01
240975	7/30/2012 - 8/6/2012	I-131	<1.00E-02	0.00E+00	1.00E-02
		Cs-134	<8.05E-03	0.00E+00	8.05E-03
		Cs-137	<1.51E-02	0.00E+00	1.51E-02
		Be-7	<9.74E-02	0.00E+00	9.74E-02
		K-40	2.90E-01	7.49E-02	5.22E-02
241246	8/6/2012 - 8/13/2012	I-131	<1.15E-02	0.00E+00	1.15E-02
		Cs-134	<1.29E-02	0.00E+00	1.29E-02
		Cs-137	<1.26E-02	0.00E+00	1.26E-02
		Be-7	<1.02E-01	0.00E+00	1.02E-01
		K-40	3.48E-01	8.99E-02	1.76E-01
241553	8/13/2012 - 8/20/2012	I-131	<8.96E-03	0.00E+00	8.96E-03
		Cs-134	<1.67E-02	0.00E+00	1.67E-02
		Cs-137	<1.40E-02	0.00E+00	1.40E-02
		Be-7	<1.20E-01	0.00E+00	1.20E-01



# MCGUIRE Radiological Environmental Monitoring Analysis Report - 2012 (Appendix E)

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

Sample Point 133 [ INDICATOR - ENE @ 6.23 miles ]

Sample ID:	Sample Dates:	Nuclide	Activity	1 Sigma Error	LLD
241553	8/13/2012 - 8/20/2012	K-40	6.00E-01	1.20E-01	6.49E-02
242142	8/20/2012 - 8/27/2012	I-131	<1.29E-02	0.00E+00	1.29E-02
		Cs-134	<9.24E-03	0.00E+00	9.24E-03
		Cs-137	<1.18E-02	0.00E+00	1.18E-02
		Be-7	<9.68E-02	0.00E+00	9.68E-02
		K-40	4.02E-01	1.22E-01	2.38E-01
242471	8/27/2012 - 9/4/2012	I-131	<1.05E-02	0.00E+00	1.05E-02
		Cs-134	<2.60E-03	0.00E+00	2.60E-03
		Cs-137	<1.69E-02	0.00E+00	1.69E-02
		Be-7	<1.07E-01	0.00E+00	1.07E-01
		K-40	3.59E-01	8.71E-02	5.71E-02
242998	9/4/2012 - 9/10/2012	I-131	<1.07E-02	0.00E+00	1.07E-02
		Cs-134	<1.42E-02	0.00E+00	1.42E-02
		Cs-137	<1.58E-02	0.00E+00	1.58E-02
		Be-7	<1.10E-01	0.00E+00	1.10E-01
		K-40	2.12E-01	1.13E-01	1.76E-01
243756	9/10/2012 - 9/17/2012	I-131	<8.56E-03	0.00E+00	8.56E-03
		Cs-134	<1.13E-02	0.00E+00	1.13E-02
		Cs-137	<1.22E-02	0.00E+00	1.22E-02
		Be-7	<6.43E-02	0.00E+00	6.43E-02
		K-40	<3.94E-01	0.00E+00	3.94E-01
244161	9/17/2012 - 9/24/2012	I-131	<6.73E-03	0.00E+00	6.73E-03
		Cs-134	<7.50E-03	0.00E+00	7.50E-03
		Cs-137	<1.20E-02	0.00E+00	1.20E-02
		Be-7	<8.27E-02	0.00E+00	8.27E-02
		K-40	5.10E-01	1.04E-01	5.74E-02
245032	9/24/2012 - 10/1/2012	I-131	<1.30E-02	0.00E+00	1.30E-02
		Cs-134	<1.63E-02	0.00E+00	1.63E-02
		Cs-137	<1.11E-02	0.00E+00	1.11E-02
		Be-7	<1.33E-01	0.00E+00	1.33E-01
		K-40	3.24E-01	8.65E-02	6.25E-02
245852	10/1/2012 - 10/8/2012	I-131	<6.14E-03	0.00E+00	6.14E-03
		Cs-134	<9.32E-03	0.00E+00	9.32E-03
		Cs-137	<8.38E-03	0.00E+00	8.38E-03
		Be-7	<5.70E-02	0.00E+00	5.70E-02
		K-40	3.56E-01	1.07E-01	2.12E-01
246707	10/8/2012 - 10/15/2012	I-131	<9.59E-03	0.00E+00	9.59E-03
		Cs-134	<9.15E-03	0.00E+00	9.15E-03
		Cs-137	<1.09E-02	0.00E+00	1.09E-02
		Be-7	<6.46E-02	0.00E+00	6.46E-02
		K-40	<3.80E-01	0.00E+00	3.80E-01
247115	10/15/2012 - 10/22/2012	I-131	<1.41E-02	0.00E+00	1.41E-02
		Cs-134	<1.40E-02	0.00E+00	1.40E-02
		Cs-137	<1.70E-02	0.00E+00	1.70E-02
		Be-7	<1.10E-01	0.00E+00	1.10E-01
		K-40	<5.12E-01	0.00E+00	5.12E-01
247431	10/22/2012 - 10/29/2012	I-131	<1.41E-02	0.00E+00	1.41E-02
		Cs-134	<1.19E-02	0.00E+00	1.19E-02
		Cs-137	<9.63E-03	0.00E+00	9.63E-03
		Be-7	<9.85E-02	0.00E+00	9.85E-02



**MCGUIRE Radiological Environmental Monitoring Analysis Report - 2012 (Appendix E)**

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

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

Sample ID:	Sample Dates:	Nuclide	Activity	1 Sigma Error	LLD
247431	10/22/2012 - 10/29/2012	K-40	<4.96E-01	0.00E+00	4.96E-01
247769	10/29/2012 - 11/5/2012	I-131	<1.23E-02	0.00E+00	1.23E-02
		Cs-134	<9.40E-03	0.00E+00	9.40E-03
		Cs-137	<1.44E-02	0.00E+00	1.44E-02
		Be-7	<1.06E-01	0.00E+00	1.06E-01
		K-40	3.92E-01	9.24E-02	2.80E-01
247964	11/5/2012 - 11/12/2012	I-131	<8.46E-03	0.00E+00	8.46E-03
		Cs-134	<9.76E-03	0.00E+00	9.76E-03
		Cs-137	<1.52E-02	0.00E+00	1.52E-02
		Be-7	<9.10E-02	0.00E+00	9.10E-02
		K-40	<4.83E-01	0.00E+00	4.83E-01
248368	11/12/2012 - 11/19/2012	I-131	<8.60E-03	0.00E+00	8.60E-03
		Cs-134	<7.62E-03	0.00E+00	7.62E-03
		Cs-137	<1.73E-02	0.00E+00	1.73E-02
		Be-7	<7.17E-02	0.00E+00	7.17E-02
		K-40	2.92E-01	9.97E-02	2.86E-01
248647	11/19/2012 - 11/26/2012	I-131	<5.40E-03	0.00E+00	5.40E-03
		Cs-134	<1.09E-02	0.00E+00	1.09E-02
		Cs-137	<1.58E-02	0.00E+00	1.58E-02
		Be-7	<9.84E-02	0.00E+00	9.84E-02
		K-40	<3.98E-01	0.00E+00	3.98E-01
249020	11/26/2012 - 12/3/2012	I-131	<8.15E-03	0.00E+00	8.15E-03
		Cs-134	<6.30E-03	0.00E+00	6.30E-03
		Cs-137	<1.23E-02	0.00E+00	1.23E-02
		Be-7	<6.69E-02	0.00E+00	6.69E-02
		K-40	3.37E-01	8.42E-02	1.75E-01
249259	12/3/2012 - 12/10/2012	I-131	<8.60E-03	0.00E+00	8.60E-03
		Cs-134	<7.46E-03	0.00E+00	7.46E-03
		Cs-137	<1.92E-02	0.00E+00	1.92E-02
		Be-7	<8.62E-02	0.00E+00	8.62E-02
		K-40	<2.62E-01	0.00E+00	2.62E-01
249457	12/10/2012 - 12/17/2012	I-131	<1.21E-02	0.00E+00	1.21E-02
		Cs-134	<1.40E-02	0.00E+00	1.40E-02
		Cs-137	<2.06E-02	0.00E+00	2.06E-02
		Be-7	<8.50E-02	0.00E+00	8.50E-02
		K-40	3.02E-01	1.40E-01	2.58E-01
249884	12/17/2012 - 12/24/2012	I-131	<1.04E-02	0.00E+00	1.04E-02
		Cs-134	<1.03E-02	0.00E+00	1.03E-02
		Cs-137	<8.35E-03	0.00E+00	8.35E-03
		Be-7	<5.98E-02	0.00E+00	5.98E-02
		K-40	2.17E-01	8.74E-02	1.87E-01
250191	12/24/2012 - 12/31/2012	I-131	<9.15E-03	0.00E+00	9.15E-03
		Cs-134	<1.19E-02	0.00E+00	1.19E-02
		Cs-137	<1.29E-02	0.00E+00	1.29E-02
		Be-7	<6.34E-02	0.00E+00	6.34E-02
		K-40	<3.98E-01	0.00E+00	3.98E-01

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

Sample ID:	Sample Dates:	Nuclide	Activity	1 Sigma Error	LLD
227171	1/3/2012 - 1/9/2012	I-131	<1.27E-02	0.00E+00	1.27E-02
		Cs-134	<1.84E-02	0.00E+00	1.84E-02
		Cs-137	<1.49E-02	0.00E+00	1.49E-02





# MCGUIRE Radiological Environmental Monitoring Analysis Report - 2012 (Appendix E)

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

Sample Point 195 [ INDICATOR - N @ 0.19 miles ]

Sample ID:	Sample Dates:	Nuclide	Activity	1 Sigma Error	LLD
227171	1/3/2012 - 1/9/2012	Be-7	<8.61E-02	0.00E+00	8.61E-02
		K-40	3.21E-01	1.13E-01	2.29E-01
227305	1/9/2012 - 1/16/2012	I-131	<1.28E-02	0.00E+00	1.28E-02
		Cs-134	<1.22E-02	0.00E+00	1.22E-02
		Cs-137	<2.37E-02	0.00E+00	2.37E-02
		Be-7	<1.31E-01	0.00E+00	1.31E-01
		K-40	3.81E-01	9.53E-02	2.65E-01
227519	1/16/2012 - 1/23/2012	I-131	<1.13E-02	0.00E+00	1.13E-02
		Cs-134	<1.32E-02	0.00E+00	1.32E-02
		Cs-137	<1.56E-02	0.00E+00	1.56E-02
		Be-7	<1.17E-01	0.00E+00	1.17E-01
		K-40	2.78E-01	8.02E-02	6.26E-02
227841	1/23/2012 - 1/30/2012	I-131	<6.73E-03	0.00E+00	6.73E-03
		Cs-134	<7.19E-03	0.00E+00	7.19E-03
		Cs-137	<8.53E-03	0.00E+00	8.53E-03
		Be-7	<1.03E-01	0.00E+00	1.03E-01
		K-40	2.96E-01	7.90E-02	1.90E-01
228108	1/30/2012 - 2/6/2012	I-131	<1.26E-02	0.00E+00	1.26E-02
		Cs-134	<1.48E-02	0.00E+00	1.48E-02
		Cs-137	<2.06E-02	0.00E+00	2.06E-02
		Be-7	<1.08E-01	0.00E+00	1.08E-01
		K-40	4.01E-01	1.13E-01	6.10E-02
229419	2/6/2012 - 2/13/2012	I-131	<7.41E-03	0.00E+00	7.41E-03
		Cs-134	<9.95E-03	0.00E+00	9.95E-03
		Cs-137	<1.04E-02	0.00E+00	1.04E-02
		Be-7	<7.02E-02	0.00E+00	7.02E-02
		K-40	3.87E-01	7.32E-02	1.26E-01
230045	2/13/2012 - 2/20/2012	I-131	<7.07E-03	0.00E+00	7.07E-03
		Cs-134	<1.05E-02	0.00E+00	1.05E-02
		Cs-137	<9.75E-03	0.00E+00	9.75E-03
		Be-7	<8.34E-02	0.00E+00	8.34E-02
		K-40	2.92E-01	7.53E-02	1.41E-01
230720	2/20/2012 - 2/27/2012	I-131	<7.32E-03	0.00E+00	7.32E-03
		Cs-134	<6.58E-03	0.00E+00	6.58E-03
		Cs-137	<9.11E-03	0.00E+00	9.11E-03
		Be-7	<5.46E-02	0.00E+00	5.46E-02
		K-40	5.76E-01	8.23E-02	8.84E-02
230929	2/27/2012 - 3/5/2012	I-131	<1.18E-02	0.00E+00	1.18E-02
		Cs-134	<1.12E-02	0.00E+00	1.12E-02
		Cs-137	<1.60E-02	0.00E+00	1.60E-02
		Be-7	<5.64E-02	0.00E+00	5.64E-02
		K-40	5.89E-01	1.16E-01	2.06E-01
231639	3/5/2012 - 3/12/2012	I-131	<5.43E-03	0.00E+00	5.43E-03
		Cs-134	<1.45E-02	0.00E+00	1.45E-02
		Cs-137	<1.17E-02	0.00E+00	1.17E-02
		Be-7	<7.68E-02	0.00E+00	7.68E-02
		K-40	3.58E-01	1.09E-01	1.84E-01
232453	3/12/2012 - 3/19/2012	I-131	<9.87E-03	0.00E+00	9.87E-03
		Cs-134	<1.65E-02	0.00E+00	1.65E-02
		Cs-137	<1.69E-02	0.00E+00	1.69E-02
		Be-7	<9.52E-02	0.00E+00	9.52E-02



# MCGUIRE Radiological Environmental Monitoring Analysis Report - 2012 (Appendix E)

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

Sample Point 195 [ INDICATOR - N @ 0.19 miles ]

Sample ID	Sample Dates	Nuclide	Activity	1 Sigma Error	LLD
232453	3/12/2012 - 3/19/2012	K-40	3.66E-01	9.15E-02	1.67E-01
233293	3/19/2012 - 3/26/2012	I-131	<7.42E-03	0.00E+00	7.42E-03
		Cs-134	<9.04E-03	0.00E+00	9.04E-03
		Cs-137	<1.12E-02	0.00E+00	1.12E-02
		Be-7	<6.46E-02	0.00E+00	6.46E-02
		K-40	7.05E-01	9.88E-02	1.26E-01
233534	3/26/2012 - 4/2/2012	I-131	<1.04E-02	0.00E+00	1.04E-02
		Cs-134	<1.02E-02	0.00E+00	1.02E-02
		Cs-137	<1.83E-02	0.00E+00	1.83E-02
		Be-7	<8.30E-02	0.00E+00	8.30E-02
		K-40	4.49E-01	9.57E-02	5.52E-02
234452	4/2/2012 - 4/9/2012	I-131	<6.70E-03	0.00E+00	6.70E-03
		Cs-134	<1.00E-02	0.00E+00	1.00E-02
		Cs-137	<1.05E-02	0.00E+00	1.05E-02
		Be-7	<7.54E-02	0.00E+00	7.54E-02
		K-40	6.25E-01	9.60E-02	1.36E-01
234880	4/9/2012 - 4/16/2012	I-131	<1.02E-02	0.00E+00	1.02E-02
		Cs-134	<1.43E-02	0.00E+00	1.43E-02
		Cs-137	<2.08E-02	0.00E+00	2.08E-02
		Be-7	<1.16E-01	0.00E+00	1.16E-01
		K-40	3.44E-01	1.06E-01	2.41E-01
235202	4/16/2012 - 4/23/2012	I-131	<8.81E-03	0.00E+00	8.81E-03
		Cs-134	<1.04E-02	0.00E+00	1.04E-02
		Cs-137	<5.14E-03	0.00E+00	5.14E-03
		Be-7	<8.10E-02	0.00E+00	8.10E-02
		K-40	2.90E-01	7.49E-02	1.43E-01
235387	4/23/2012 - 4/30/2012	I-131	<1.32E-02	0.00E+00	1.32E-02
		Cs-134	<1.05E-02	0.00E+00	1.05E-02
		Cs-137	<1.61E-02	0.00E+00	1.61E-02
		Be-7	<1.03E-01	0.00E+00	1.03E-01
		K-40	3.42E-01	8.82E-02	6.15E-02
235725	4/30/2012 - 5/7/2012	I-131	<1.13E-02	0.00E+00	1.13E-02
		Cs-134	<1.16E-02	0.00E+00	1.16E-02
		Cs-137	<1.38E-02	0.00E+00	1.38E-02
		Be-7	<9.53E-02	0.00E+00	9.53E-02
		K-40	3.31E-01	8.85E-02	3.20E-01
235971	5/7/2012 - 5/14/2012	I-131	<7.54E-03	0.00E+00	7.54E-03
		Cs-134	<9.57E-03	0.00E+00	9.57E-03
		Cs-137	<1.06E-02	0.00E+00	1.06E-02
		Be-7	<5.52E-02	0.00E+00	5.52E-02
		K-40	5.89E-01	8.88E-02	9.78E-02
236181	5/14/2012 - 5/21/2012	I-131	<7.28E-03	0.00E+00	7.28E-03
		Cs-134	<9.42E-03	0.00E+00	9.42E-03
		Cs-137	<1.25E-02	0.00E+00	1.25E-02
		Be-7	<6.18E-02	0.00E+00	6.18E-02
		K-40	5.78E-01	9.20E-02	1.12E-01
236494	5/21/2012 - 5/29/2012	I-131	<6.23E-03	0.00E+00	6.23E-03
		Cs-134	<8.66E-03	0.00E+00	8.66E-03
		Cs-137	<1.61E-02	0.00E+00	1.61E-02
		Be-7	<7.80E-02	0.00E+00	7.80E-02



# MCGUIRE Radiological Environmental Monitoring Analysis Report - 2012 (Appendix E)

Media Type: AIR RADIOIODINE Concentration (Activity): pCi/m<sup>3</sup>

Sample Point 195 [ INDICATOR - N @ 0.19 miles ]

Sample ID:	Sample Dates:	Nuclide	Activity	1 Sigma Error	LLD
236494	5/21/2012 - 5/29/2012	K-40	<3.61E-01	0.00E+00	3.61E-01
236793	5/29/2012 - 6/4/2012	I-131	<1.65E-02	0.00E+00	1.65E-02
		Cs-134	<1.37E-02	0.00E+00	1.37E-02
		Cs-137	<2.13E-02	0.00E+00	2.13E-02
		Be-7	<1.43E-01	0.00E+00	1.43E-01
		K-40	<5.92E-01	0.00E+00	5.92E-01
237119	6/4/2012 - 6/11/2012	I-131	<1.03E-02	0.00E+00	1.03E-02
		Cs-134	<1.55E-02	0.00E+00	1.55E-02
		Cs-137	<1.50E-02	0.00E+00	1.50E-02
		Be-7	<9.67E-02	0.00E+00	9.67E-02
		K-40	3.82E-01	9.01E-02	5.74E-02
237294	6/11/2012 - 6/18/2012	I-131	<8.11E-03	0.00E+00	8.11E-03
		Cs-134	<9.86E-03	0.00E+00	9.86E-03
		Cs-137	<1.29E-02	0.00E+00	1.29E-02
		Be-7	<6.83E-02	0.00E+00	6.83E-02
		K-40	1.99E-01	9.05E-02	1.21E-01
237970	6/18/2012 - 6/25/2012	I-131	<7.24E-03	0.00E+00	7.24E-03
		Cs-134	<8.45E-03	0.00E+00	8.45E-03
		Cs-137	<1.20E-02	0.00E+00	1.20E-02
		Be-7	<7.05E-02	0.00E+00	7.05E-02
		K-40	5.53E-01	7.98E-02	1.05E-01
238722	6/25/2012 - 7/2/2012	I-131	<1.29E-02	0.00E+00	1.29E-02
		Cs-134	<1.23E-02	0.00E+00	1.23E-02
		Cs-137	<1.74E-02	0.00E+00	1.74E-02
		Be-7	<9.07E-02	0.00E+00	9.07E-02
		K-40	2.38E-01	7.52E-02	1.80E-01
239099	7/2/2012 - 7/9/2012	I-131	<8.52E-03	0.00E+00	8.52E-03
		Cs-134	<1.00E-02	0.00E+00	1.00E-02
		Cs-137	<1.39E-02	0.00E+00	1.39E-02
		Be-7	<7.10E-02	0.00E+00	7.10E-02
		K-40	2.23E-01	7.69E-02	3.62E-02
239871	7/9/2012 - 7/16/2012	I-131	<5.49E-03	0.00E+00	5.49E-03
		Cs-134	<7.71E-03	0.00E+00	7.71E-03
		Cs-137	<1.22E-02	0.00E+00	1.22E-02
		Be-7	<6.74E-02	0.00E+00	6.74E-02
		K-40	3.62E-01	8.11E-02	9.63E-02
239995	7/16/2012 - 7/23/2012	I-131	<1.09E-02	0.00E+00	1.09E-02
		Cs-134	<1.15E-02	0.00E+00	1.15E-02
		Cs-137	<1.84E-02	0.00E+00	1.84E-02
		Be-7	<7.10E-02	0.00E+00	7.10E-02
		K-40	<3.75E-01	0.00E+00	3.75E-01
240315	7/23/2012 - 7/30/2012	I-131	<1.25E-02	0.00E+00	1.25E-02
		Cs-134	<1.31E-02	0.00E+00	1.31E-02
		Cs-137	<1.44E-02	0.00E+00	1.44E-02
		Be-7	<1.19E-01	0.00E+00	1.19E-01
		K-40	3.32E-01	8.87E-02	2.26E-01
240952	7/30/2012 - 8/6/2012	I-131	<8.18E-03	0.00E+00	8.18E-03
		Cs-134	<9.61E-03	0.00E+00	9.61E-03
		Cs-137	<1.84E-02	0.00E+00	1.84E-02
		Be-7	<9.11E-02	0.00E+00	9.11E-02



# MCGUIRE Radiological Environmental Monitoring Analysis Report - 2012 (Appendix E)

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

Sample Point 195 [ INDICATOR - N @ 0.19 miles ]

Sample ID	Sample Dates	Nuclide	Activity	1 Sigma Error	LLD
240952	7/30/2012 - 8/6/2012	K-40	5.95E-01	1.17E-01	1.64E-01
241223	8/6/2012 - 8/13/2012	I-131	<1.28E-02	0.00E+00	1.28E-02
		Cs-134	<1.49E-02	0.00E+00	1.49E-02
		Cs-137	<1.03E-02	0.00E+00	1.03E-02
		Be-7	<1.04E-01	0.00E+00	1.04E-01
		K-40	<3.47E-01	0.00E+00	3.47E-01
241530	8/13/2012 - 8/20/2012	I-131	<1.39E-02	0.00E+00	1.39E-02
		Cs-134	<1.09E-02	0.00E+00	1.09E-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	3.62E-01	9.06E-02	1.71E-01
242119	8/20/2012 - 8/27/2012	I-131	<7.03E-03	0.00E+00	7.03E-03
		Cs-134	<1.07E-02	0.00E+00	1.07E-02
		Cs-137	<1.65E-02	0.00E+00	1.65E-02
		Be-7	<6.26E-02	0.00E+00	6.26E-02
		K-40	4.83E-01	8.40E-02	3.95E-02
242448	8/27/2012 - 9/4/2012	I-131	<8.96E-03	0.00E+00	8.96E-03
		Cs-134	<8.63E-03	0.00E+00	8.63E-03
		Cs-137	<1.38E-02	0.00E+00	1.38E-02
		Be-7	<6.53E-02	0.00E+00	6.53E-02
		K-40	6.04E-01	8.45E-02	8.48E-02
242975	9/4/2012 - 9/10/2012	I-131	<8.81E-03	0.00E+00	8.81E-03
		Cs-134	<1.15E-02	0.00E+00	1.15E-02
		Cs-137	<1.68E-02	0.00E+00	1.68E-02
		Be-7	<8.89E-02	0.00E+00	8.89E-02
		K-40	4.04E-01	8.08E-02	1.17E-01
243733	9/10/2012 - 9/17/2012	I-131	<1.25E-02	0.00E+00	1.25E-02
		Cs-134	<1.00E-02	0.00E+00	1.00E-02
		Cs-137	<1.72E-02	0.00E+00	1.72E-02
		Be-7	<1.08E-01	0.00E+00	1.08E-01
		K-40	3.67E-01	1.06E-01	2.39E-01
244138	9/17/2012 - 9/24/2012	I-131	<8.00E-03	0.00E+00	8.00E-03
		Cs-134	<1.12E-02	0.00E+00	1.12E-02
		Cs-137	<1.43E-02	0.00E+00	1.43E-02
		Be-7	<8.22E-02	0.00E+00	8.22E-02
		K-40	4.16E-01	9.54E-02	1.34E-01
245011	9/24/2012 - 10/1/2012	I-131	<1.30E-02	0.00E+00	1.30E-02
		Cs-134	<1.16E-02	0.00E+00	1.16E-02
		Cs-137	<9.99E-03	0.00E+00	9.99E-03
		Be-7	<7.21E-02	0.00E+00	7.21E-02
		K-40	3.66E-01	1.32E-01	2.16E-01
245831	10/1/2012 - 10/8/2012	I-131	<6.71E-03	0.00E+00	6.71E-03
		Cs-134	<6.88E-03	0.00E+00	6.88E-03
		Cs-137	<1.02E-02	0.00E+00	1.02E-02
		Be-7	<5.88E-02	0.00E+00	5.88E-02
		K-40	1.71E-01	6.04E-02	2.26E-01
246686	10/8/2012 - 10/15/2012	I-131	<8.79E-03	0.00E+00	8.79E-03
		Cs-134	<6.16E-03	0.00E+00	6.16E-03
		Cs-137	<9.30E-03	0.00E+00	9.30E-03
		Be-7	<9.55E-02	0.00E+00	9.55E-02



## MCGUIRE Radiological Environmental Monitoring Analysis Report - 2012 (Appendix E)

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

Sample Point 195 [ INDICATOR - N @ 0.19 miles ]

Sample ID:	Sample Dates:	Nuclide	Activity	1 Sigma Error	LLD
246686	10/8/2012 - 10/15/2012	K-40	4.93E-01	1.01E-01	5.55E-02
247094	10/15/2012 - 10/22/2012	I-131	<1.32E-02	0.00E+00	1.32E-02
		Cs-134	<1.81E-02	0.00E+00	1.81E-02
		Cs-137	<1.78E-02	0.00E+00	1.78E-02
		Be-7	<1.23E-01	0.00E+00	1.23E-01
		K-40	2.62E-01	7.90E-02	6.44E-02
247410	10/22/2012 - 10/29/2012	I-131	<4.54E-03	0.00E+00	4.54E-03
		Cs-134	<3.95E-03	0.00E+00	3.95E-03
		Cs-137	<1.09E-02	0.00E+00	1.09E-02
		Be-7	<7.87E-02	0.00E+00	7.87E-02
		K-40	<4.38E-01	0.00E+00	4.38E-01
247748	10/29/2012 - 11/5/2012	I-131	<5.63E-03	0.00E+00	5.63E-03
		Cs-134	<9.44E-03	0.00E+00	9.44E-03
		Cs-137	<8.50E-03	0.00E+00	8.50E-03
		Be-7	<6.93E-02	0.00E+00	6.93E-02
		K-40	3.96E-01	6.89E-02	8.80E-02
247943	11/5/2012 - 11/12/2012	I-131	<8.30E-03	0.00E+00	8.30E-03
		Cs-134	<9.19E-03	0.00E+00	9.19E-03
		Cs-137	<1.11E-02	0.00E+00	1.11E-02
		Be-7	<8.60E-02	0.00E+00	8.60E-02
		K-40	5.51E-01	8.50E-02	9.41E-02
248347	11/12/2012 - 11/19/2012	I-131	<8.46E-03	0.00E+00	8.46E-03
		Cs-134	<1.05E-02	0.00E+00	1.05E-02
		Cs-137	<1.38E-02	0.00E+00	1.38E-02
		Be-7	<6.68E-02	0.00E+00	6.68E-02
		K-40	3.40E-01	8.57E-02	1.49E-01
248626	11/19/2012 - 11/26/2012	I-131	<1.39E-02	0.00E+00	1.39E-02
		Cs-134	<1.18E-02	0.00E+00	1.18E-02
		Cs-137	<1.71E-02	0.00E+00	1.71E-02
		Be-7	<1.13E-01	0.00E+00	1.13E-01
		K-40	2.90E-01	8.37E-02	6.53E-02
248999	11/26/2012 - 12/3/2012	I-131	<9.00E-03	0.00E+00	9.00E-03
		Cs-134	<1.08E-02	0.00E+00	1.08E-02
		Cs-137	<1.29E-02	0.00E+00	1.29E-02
		Be-7	<5.87E-02	0.00E+00	5.87E-02
		K-40	<4.78E-01	0.00E+00	4.78E-01
249238	12/3/2012 - 12/10/2012	I-131	<9.53E-03	0.00E+00	9.53E-03
		Cs-134	<1.36E-02	0.00E+00	1.36E-02
		Cs-137	<1.35E-02	0.00E+00	1.35E-02
		Be-7	<7.63E-02	0.00E+00	7.63E-02
		K-40	4.02E-01	1.03E-01	2.11E-01
249436	12/10/2012 - 12/17/2012	I-131	<7.50E-03	0.00E+00	7.50E-03
		Cs-134	<8.76E-03	0.00E+00	8.76E-03
		Cs-137	<1.14E-02	0.00E+00	1.14E-02
		Be-7	<6.03E-02	0.00E+00	6.03E-02
		K-40	1.87E-01	8.13E-02	1.88E-01
249863	12/17/2012 - 12/24/2012	I-131	<1.02E-02	0.00E+00	1.02E-02
		Cs-134	<1.34E-02	0.00E+00	1.34E-02
		Cs-137	<1.76E-02	0.00E+00	1.76E-02
		Be-7	<8.36E-02	0.00E+00	8.36E-02



# MCGUIRE Radiological Environmental Monitoring Analysis Report - 2012 (Appendix E)

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

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

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Sample ID:	Sample Dates:	Nuclide	Activity	1 Sigma Error	LLD
249863	12/17/2012 - 12/24/2012	K-40	<4.86E-01	0.00E+00	4.86E-01
250170	12/24/2012 - 12/31/2012	I-131	<1.04E-02	0.00E+00	1.04E-02
		Cs-134	<1.18E-02	0.00E+00	1.18E-02
		Cs-137	<1.57E-02	0.00E+00	1.57E-02
		Be-7	<5.05E-02	0.00E+00	5.05E-02
		K-40	5.00E-01	8.46E-02	1.50E-01

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

## Sample Point 104 [ INDICATOR - NNW @ 1.52 miles ]

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Sample ID:	Sample Dates:	Nuclide	Activity	1 Sigma Error	LLD
244980	9/11/2012 - 9/11/2012	I-131	<1.49E+01	0.00E+00	1.49E+01
		Cs-134	<1.30E+01	0.00E+00	1.30E+01
		Cs-137	<1.72E+01	0.00E+00	1.72E+01
		Be-7	<1.22E+02	0.00E+00	1.22E+02
		K-40	2.50E+03	1.92E+02	1.07E+02
246727	10/1/2012 - 10/1/2012	I-131	<9.27E+00	0.00E+00	9.27E+00
		Cs-134	<8.21E+00	0.00E+00	8.21E+00
		Cs-137	<1.17E+01	0.00E+00	1.17E+01
		Be-7	6.48E+01	3.38E+01	6.72E+01
		K-40	3.18E+03	1.32E+02	7.12E+01
248393	11/5/2012 - 11/5/2012	I-131	<1.16E+01	0.00E+00	1.16E+01
		Cs-134	<9.70E+00	0.00E+00	9.70E+00
		Cs-137	<1.64E+01	0.00E+00	1.64E+01
		Be-7	1.56E+02	5.43E+01	9.03E+01
		K-40	4.64E+03	2.03E+02	1.16E+02
249418	12/3/2012 - 12/3/2012	I-131	<2.90E+01	0.00E+00	2.90E+01
		Cs-134	<2.60E+01	0.00E+00	2.60E+01
		Cs-137	<2.90E+01	0.00E+00	2.90E+01
		Be-7	3.32E+02	8.12E+01	1.52E+02
		K-40	6.63E+03	4.64E+02	3.97E+02

## Sample Point 188 [ INDICATOR - NNE @ 2.79 miles ]

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Sample ID:	Sample Dates:	Nuclide	Activity	1 Sigma Error	LLD
226943	1/3/2012 - 1/3/2012	I-131	<2.16E+01	0.00E+00	2.16E+01
		Cs-134	<2.18E+01	0.00E+00	2.18E+01
		Cs-137	<2.61E+01	0.00E+00	2.61E+01
		Be-7	1.99E+03	1.36E+02	1.52E+02
		K-40	6.69E+03	3.37E+02	2.12E+02
227938	2/6/2012 - 2/6/2012	I-131	<2.00E+01	0.00E+00	2.00E+01
		Cs-134	<1.75E+01	0.00E+00	1.75E+01
		Cs-137	<2.84E+01	0.00E+00	2.84E+01
		Be-7	1.34E+03	1.10E+02	1.52E+02
		K-40	5.38E+03	2.96E+02	2.03E+02
230890	3/5/2012 - 3/5/2012	I-131	<2.32E+01	0.00E+00	2.32E+01
		Cs-134	<2.62E+01	0.00E+00	2.62E+01
		Cs-137	<3.53E+01	0.00E+00	3.53E+01
		Be-7	7.75E+02	1.20E+02	2.12E+02
		K-40	6.53E+03	4.26E+02	2.57E+02
233521	4/2/2012 - 4/2/2012	I-131	<1.64E+01	0.00E+00	1.64E+01
		Cs-134	<1.73E+01	0.00E+00	1.73E+01
		Cs-137	<1.92E+01	0.00E+00	1.92E+01
		Be-7	4.70E+02	7.87E+01	1.27E+02
		K-40	3.62E+03	2.60E+02	1.36E+02



### MC GUIRE Radiological Environmental Monitoring Analysis Report - 2012 (Appendix E)

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

Sample Point 188 [ INDICATOR - NNE @ 2.79 miles ]

Sample ID:	Sample Dates:	Nuclide	Activity	1 Sigma Error	LLD
235436	5/7/2012 - 5/7/2012	I-131	<1.63E+01	0.00E+00	1.63E+01
		Cs-134	<1.61E+01	0.00E+00	1.61E+01
		Cs-137	<1.72E+01	0.00E+00	1.72E+01
		Be-7	4.94E+02	8.39E+01	1.28E+02
		K-40	5.41E+03	2.56E+02	1.24E+02

Sample ID:	Sample Dates:	Nuclide	Activity	1 Sigma Error	LLD
236742	6/4/2012 - 6/4/2012	I-131	<1.46E+01	0.00E+00	1.46E+01
		Cs-134	<1.11E+01	0.00E+00	1.11E+01
		Cs-137	<1.27E+01	0.00E+00	1.27E+01
		Be-7	9.36E+02	8.13E+01	1.05E+02
		K-40	5.86E+03	2.48E+02	1.38E+02

Sample ID:	Sample Dates:	Nuclide	Activity	1 Sigma Error	LLD
238709	7/2/2012 - 7/2/2012	I-131	<2.07E+01	0.00E+00	2.07E+01
		Cs-134	<2.31E+01	0.00E+00	2.31E+01
		Cs-137	<2.31E+01	0.00E+00	2.31E+01
		Be-7	3.46E+02	8.05E+01	1.56E+02
		K-40	4.04E+03	3.00E+02	3.09E+02

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

Sample Point 101 [ INDICATOR - E @ 3.31 miles ]

Sample ID:	Sample Dates:	Nuclide	Activity	1 Sigma Error	LLD
227355	12/12/2011 - 1/9/2012	Beta	1.18E+00	4.00E-01	1.27E+00
		Mn-54	<7.93E+00	0.00E+00	7.93E+00
		Co-58	<7.34E+00	0.00E+00	7.34E+00
		Fe-59	<1.92E+01	0.00E+00	1.92E+01
		Co-60	<8.82E+00	0.00E+00	8.82E+00
		Zn-65	<1.40E+01	0.00E+00	1.40E+01
		Zr-95	<6.59E+00	0.00E+00	6.59E+00
		Nb-95	<6.63E+00	0.00E+00	6.63E+00
		I-131	<6.70E+00	0.00E+00	6.70E+00
		Cs-134	<8.47E+00	0.00E+00	8.47E+00
		Cs-137	<8.37E+00	0.00E+00	8.37E+00
		BaLa-140	<9.67E+00	0.00E+00	9.67E+00
		Be-7	<6.00E+01	0.00E+00	6.00E+01
		K-40	1.17E+02	4.09E+01	9.40E+01

Sample ID:	Sample Dates:	Nuclide	Activity	1 Sigma Error	LLD
229466	1/9/2012 - 2/6/2012	Beta	1.52E+00	3.97E-01	1.24E+00
		Mn-54	<5.29E+00	0.00E+00	5.29E+00
		Co-58	<4.97E+00	0.00E+00	4.97E+00
		Fe-59	<8.21E+00	0.00E+00	8.21E+00
		Co-60	<7.45E+00	0.00E+00	7.45E+00
		Zn-65	<1.42E+01	0.00E+00	1.42E+01
		Zr-95	<8.98E+00	0.00E+00	8.98E+00
		Nb-95	<5.89E+00	0.00E+00	5.89E+00
		I-131	<6.30E+00	0.00E+00	6.30E+00
		Cs-134	<5.06E+00	0.00E+00	5.06E+00
		Cs-137	<5.50E+00	0.00E+00	5.50E+00
		BaLa-140	<7.90E+00	0.00E+00	7.90E+00
		Be-7	<4.83E+01	0.00E+00	4.83E+01
		K-40	2.76E+02	3.83E+01	5.83E+01

Sample ID:	Sample Dates:	Nuclide	Activity	1 Sigma Error	LLD
231158	12/12/2011 - 3/5/2012	H3DW	7.62E+02	6.35E+01	1.68E+02

Sample ID:	Sample Dates:	Nuclide	Activity	1 Sigma Error	LLD
231686	2/6/2012 - 3/5/2012	Beta	1.64E+00	3.95E-01	1.22E+00
		Mn-54	<5.84E+00	0.00E+00	5.84E+00
		Co-58	<4.83E+00	0.00E+00	4.83E+00
		Fe-59	<1.00E+01	0.00E+00	1.00E+01
		Co-60	<6.56E+00	0.00E+00	6.56E+00
		Zn-65	<8.84E+00	0.00E+00	8.84E+00
		Zr-95	<9.03E+00	0.00E+00	9.03E+00
		Nb-95	<4.22E+00	0.00E+00	4.22E+00
		I-131	<5.72E+00	0.00E+00	5.72E+00
		Cs-134	<3.67E+00	0.00E+00	3.67E+00



**MCGUIRE Radiological Environmental Monitoring Analysis Report - 2012 (Appendix E)**

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

Sample Point 101 [ INDICATOR - E @ 3.31 miles ]

Sample ID:	Sample Dates:	Nuclide	Activity	1 Sigma Error	LLD
231686	2/6/2012 - 3/5/2012	Cs-137	<5.18E+00	0.00E+00	5.18E+00
		BaLa-140	<5.30E+00	0.00E+00	5.30E+00
		Be-7	<4.60E+01	0.00E+00	4.60E+01
		K-40	1.68E+02	3.44E+01	5.99E+01
		Beta	1.07E+00	4.02E-01	1.32E+00
234544	3/5/2012 - 4/2/2012	Beta	1.07E+00	4.02E-01	1.32E+00
		Mn-54	<5.22E+00	0.00E+00	5.22E+00
		Co-58	<5.06E+00	0.00E+00	5.06E+00
		Fe-59	<9.57E+00	0.00E+00	9.57E+00
		Co-60	<7.37E+00	0.00E+00	7.37E+00
		Zn-65	<9.09E+00	0.00E+00	9.09E+00
		Zr-95	<6.24E+00	0.00E+00	6.24E+00
		Nb-95	<5.43E+00	0.00E+00	5.43E+00
		I-131	<5.40E+00	0.00E+00	5.40E+00
		Cs-134	<4.66E+00	0.00E+00	4.66E+00
		Cs-137	<4.65E+00	0.00E+00	4.65E+00
		BaLa-140	<7.72E+00	0.00E+00	7.72E+00
		Be-7	<3.64E+01	0.00E+00	3.64E+01
		K-40	2.31E+02	2.98E+01	2.92E+01
235772	4/2/2012 - 4/30/2012	Beta	1.93E+00	3.94E-01	1.19E+00
		Mn-54	<9.88E+00	0.00E+00	9.88E+00
		Co-58	<7.00E+00	0.00E+00	7.00E+00
		Fe-59	<1.36E+01	0.00E+00	1.36E+01
		Co-60	<6.80E+00	0.00E+00	6.80E+00
		Zn-65	<1.31E+01	0.00E+00	1.31E+01
		Zr-95	<1.42E+01	0.00E+00	1.42E+01
		Nb-95	<7.54E+00	0.00E+00	7.54E+00
		I-131	<5.24E+00	0.00E+00	5.24E+00
		Cs-134	<4.76E+00	0.00E+00	4.76E+00
		Cs-137	<3.80E+00	0.00E+00	3.80E+00
		BaLa-140	<4.72E+00	0.00E+00	4.72E+00
		Be-7	<4.11E+01	0.00E+00	4.11E+01
		K-40	<9.66E+01	0.00E+00	9.66E+01
236841	4/30/2012 - 5/29/2012	Beta	1.36E+00	4.12E-01	1.32E+00
		Mn-54	<4.14E+00	0.00E+00	4.14E+00
		Co-58	<5.21E+00	0.00E+00	5.21E+00
		Fe-59	<1.14E+01	0.00E+00	1.14E+01
		Co-60	<7.12E+00	0.00E+00	7.12E+00
		Zn-65	<1.24E+01	0.00E+00	1.24E+01
		Zr-95	<7.67E+00	0.00E+00	7.67E+00
		Nb-95	<5.15E+00	0.00E+00	5.15E+00
		I-131	<5.25E+00	0.00E+00	5.25E+00
		Cs-134	<5.12E+00	0.00E+00	5.12E+00
		Cs-137	<5.73E+00	0.00E+00	5.73E+00
		BaLa-140	<5.24E+00	0.00E+00	5.24E+00
		Be-7	<3.88E+01	0.00E+00	3.88E+01
		K-40	7.16E+01	2.48E+01	5.69E+01
236883	3/5/2012 - 5/29/2012	H3DW	8.43E+02	6.63E+01	1.74E+02
238769	5/29/2012 - 6/25/2012	Beta	1.31E+00	3.85E-01	1.21E+00
		Mn-54	<4.52E+00	0.00E+00	4.52E+00
		Co-58	<4.28E+00	0.00E+00	4.28E+00
		Fe-59	<8.53E+00	0.00E+00	8.53E+00
		Co-60	<5.81E+00	0.00E+00	5.81E+00
		Zn-65	<8.32E+00	0.00E+00	8.32E+00
		Zr-95	<5.26E+00	0.00E+00	5.26E+00
		Nb-95	<4.44E+00	0.00E+00	4.44E+00
		I-131	<3.90E+00	0.00E+00	3.90E+00
		Cs-134	<3.94E+00	0.00E+00	3.94E+00
		Cs-137	<5.29E+00	0.00E+00	5.29E+00
		BaLa-140	<6.59E+00	0.00E+00	6.59E+00





**MCGUIRE Radiological Environmental Monitoring Analysis Report - 2012 (Appendix E)**

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

Sample Point 101 [ INDICATOR - E @ 3.31 miles ]

Sample ID:	Sample Dates:	Nuclide	Activity	1 Sigma Error	LLD
238769	5/29/2012 - 6/25/2012	Be-7	<3.13E+01	0.00E+00	3.13E+01
		K-40	8.85E+01	1.81E+01	4.37E+01
240376	6/25/2012 - 7/23/2012	Beta	1.49E+00	3.88E-01	1.21E+00
		Mn-54	<7.36E+00	0.00E+00	7.36E+00
		Co-58	<7.89E+00	0.00E+00	7.89E+00
		Fe-59	<1.26E+01	0.00E+00	1.26E+01
		Co-60	<9.84E+00	0.00E+00	9.84E+00
		Zn-65	<1.87E+01	0.00E+00	1.87E+01
		Zr-95	<1.34E+01	0.00E+00	1.34E+01
		Nb-95	<7.61E+00	0.00E+00	7.61E+00
		I-131	<7.47E+00	0.00E+00	7.47E+00
		Cs-134	<6.30E+00	0.00E+00	6.30E+00
		Cs-137	<7.62E+00	0.00E+00	7.62E+00
		BaLa-140	<2.86E+00	0.00E+00	2.86E+00
		Be-7	<4.64E+01	0.00E+00	4.64E+01
		K-40	<1.38E+02	0.00E+00	1.38E+02
		242166	7/23/2012 - 8/20/2012	Beta	2.26E+00
Mn-54	<5.31E+00			0.00E+00	5.31E+00
Co-58	<4.52E+00			0.00E+00	4.52E+00
Fe-59	<1.01E+01			0.00E+00	1.01E+01
Co-60	<6.48E+00			0.00E+00	6.48E+00
Zn-65	<1.16E+01			0.00E+00	1.16E+01
Zr-95	<8.87E+00			0.00E+00	8.87E+00
Nb-95	<5.73E+00			0.00E+00	5.73E+00
I-131	<6.52E+00			0.00E+00	6.52E+00
Cs-134	<4.32E+00			0.00E+00	4.32E+00
Cs-137	<6.24E+00			0.00E+00	6.24E+00
BaLa-140	<5.77E+00			0.00E+00	5.77E+00
Be-7	<4.79E+01			0.00E+00	4.79E+01
K-40	1.23E+02			4.07E+01	7.23E+01
242481	5/29/2012 - 8/20/2012			H3DW	7.49E+02
244185	8/20/2012 - 9/17/2012	Beta	1.90E+00	4.28E-01	1.32E+00
		Mn-54	<5.64E+00	0.00E+00	5.64E+00
		Co-58	<4.55E+00	0.00E+00	4.55E+00
		Fe-59	<8.69E+00	0.00E+00	8.69E+00
		Co-60	<6.71E+00	0.00E+00	6.71E+00
		Zn-65	<1.12E+01	0.00E+00	1.12E+01
		Zr-95	<6.13E+00	0.00E+00	6.13E+00
		Nb-95	<5.33E+00	0.00E+00	5.33E+00
		I-131	<4.90E+00	0.00E+00	4.90E+00
		Cs-134	<5.12E+00	0.00E+00	5.12E+00
		Cs-137	<5.81E+00	0.00E+00	5.81E+00
		BaLa-140	<5.26E+00	0.00E+00	5.26E+00
		Be-7	<4.18E+01	0.00E+00	4.18E+01
		K-40	2.46E+02	3.08E+01	5.35E+01
		247140	9/17/2012 - 10/15/2012	Beta	7.94E-01
Mn-54	<1.02E+01			0.00E+00	1.02E+01
Co-58	<7.50E+00			0.00E+00	7.50E+00
Fe-59	<1.00E+01			0.00E+00	1.00E+01
Co-60	<9.79E+00			0.00E+00	9.79E+00
Zn-65	<9.42E+00			0.00E+00	9.42E+00
Zr-95	<1.22E+01			0.00E+00	1.22E+01
Nb-95	<5.89E+00			0.00E+00	5.89E+00
I-131	<7.38E+00			0.00E+00	7.38E+00
Cs-134	<5.13E+00			0.00E+00	5.13E+00
Cs-137	<8.12E+00			0.00E+00	8.12E+00
BaLa-140	<6.87E+00			0.00E+00	6.87E+00
Be-7	<5.13E+01			0.00E+00	5.13E+01



**MCGUIRE Radiological Environmental Monitoring Analysis Report - 2012 (Appendix E)**

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

**Sample Point 101 [ INDICATOR - E @ 3.31 miles ]**

Sample ID: 247140 Sample Dates: 9/17/2012 - 10/15/2012 Nuclide Activity 1 Sigma Error LLD  
K-40 <1.25E+02 0.00E+00 1.25E+02

Sample ID: 248392 Sample Dates: 10/15/2012 - 11/12/2012 Nuclide Activity 1 Sigma Error LLD  
Beta 1.44E+00 4.32E-01 1.37E+00  
Mn-54 <6.06E+00 0.00E+00 6.06E+00  
Co-58 <6.00E+00 0.00E+00 6.00E+00  
Fe-59 <3.42E+00 0.00E+00 3.42E+00  
Co-60 <9.84E+00 0.00E+00 9.84E+00  
Zn-65 <1.69E+01 0.00E+00 1.69E+01  
Zr-95 <1.19E+01 0.00E+00 1.19E+01  
Nb-95 <9.00E+00 0.00E+00 9.00E+00  
I-131 <5.40E+00 0.00E+00 5.40E+00  
Cs-134 <6.74E+00 0.00E+00 6.74E+00  
Cs-137 <9.13E+00 0.00E+00 9.13E+00  
BaLa-140 <7.75E+00 0.00E+00 7.75E+00  
Be-7 <4.60E+01 0.00E+00 4.60E+01  
K-40 <1.51E+02 0.00E+00 1.51E+02

Sample ID: 249023 Sample Dates: 8/20/2012 - 12/10/2012 Nuclide Activity 1 Sigma Error LLD  
H3DW 8.25E+02 6.59E+01 1.75E+02

Sample ID: 249481 Sample Dates: 11/12/2012 - 12/10/2012 Nuclide Activity 1 Sigma Error LLD  
Beta 2.42E+00 4.11E-01 1.21E+00  
Mn-54 <6.10E+00 0.00E+00 6.10E+00  
Co-58 <5.08E+00 0.00E+00 5.08E+00  
Fe-59 <9.23E+00 0.00E+00 9.23E+00  
Co-60 <7.21E+00 0.00E+00 7.21E+00  
Zn-65 <1.16E+01 0.00E+00 1.16E+01  
Zr-95 <9.96E+00 0.00E+00 9.96E+00  
Nb-95 <6.17E+00 0.00E+00 6.17E+00  
I-131 <5.38E+00 0.00E+00 5.38E+00  
Cs-134 <4.97E+00 0.00E+00 4.97E+00  
Cs-137 <5.51E+00 0.00E+00 5.51E+00  
BaLa-140 <5.18E+00 0.00E+00 5.18E+00  
Be-7 <4.68E+01 0.00E+00 4.68E+01  
K-40 1.35E+02 3.06E+01 6.22E+01

**Sample Point 119 [ INDICATOR - SSW @ 7.4 miles ]**

Sample ID: 227339 Sample Dates: 12/12/2011 - 1/9/2012 Nuclide Activity 1 Sigma Error LLD  
Beta 1.53E+00 4.06E-01 1.26E+00  
Mn-54 <5.54E+00 0.00E+00 5.54E+00  
Co-58 <5.49E+00 0.00E+00 5.49E+00  
Fe-59 <1.13E+01 0.00E+00 1.13E+01  
Co-60 <9.22E+00 0.00E+00 9.22E+00  
Zn-65 <1.48E+01 0.00E+00 1.48E+01  
Zr-95 <1.36E+01 0.00E+00 1.36E+01  
Nb-95 <5.34E+00 0.00E+00 5.34E+00  
I-131 <5.98E+00 0.00E+00 5.98E+00  
Cs-134 <5.63E+00 0.00E+00 5.63E+00  
Cs-137 <8.83E+00 0.00E+00 8.83E+00  
BaLa-140 <1.35E+01 0.00E+00 1.35E+01  
Be-7 <5.35E+01 0.00E+00 5.35E+01  
K-40 <1.30E+02 0.00E+00 1.30E+02

Sample ID: 229450 Sample Dates: 1/9/2012 - 2/6/2012 Nuclide Activity 1 Sigma Error LLD  
Beta 1.29E+00 3.91E-01 1.23E+00  
Mn-54 <5.80E+00 0.00E+00 5.80E+00  
Co-58 <6.28E+00 0.00E+00 6.28E+00  
Fe-59 <9.43E+00 0.00E+00 9.43E+00  
Co-60 <4.59E+00 0.00E+00 4.59E+00  
Zn-65 <1.02E+01 0.00E+00 1.02E+01  
Zr-95 <8.49E+00 0.00E+00 8.49E+00  
Nb-95 <5.50E+00 0.00E+00 5.50E+00  
I-131 <5.13E+00 0.00E+00 5.13E+00  
Cs-134 <4.45E+00 0.00E+00 4.45E+00  
Cs-137 <5.87E+00 0.00E+00 5.87E+00  
BaLa-140 <5.43E+00 0.00E+00 5.43E+00  
Be-7 <4.12E+01 0.00E+00 4.12E+01



**MCGUIRE Radiological Environmental Monitoring Analysis Report - 2012 (Appendix E)**

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

Sample Point 119 [ INDICATOR - SSW @ 7.4 miles ]

Sample ID:	Sample Dates:	Nuclide	Activity	1 Sigma Error	LLD
229450	1/9/2012 - 2/6/2012	K-40	9.69E+01	2.57E+01	5.17E+01
231157	12/12/2011 - 3/5/2012	H3DW	6.05E+02	6.14E+01	1.69E+02
231670	2/6/2012 - 3/5/2012	Beta	1.77E+00	3.96E-01	1.21E+00
		Mn-54	<6.40E+00	0.00E+00	6.40E+00
		Co-58	<4.20E+00	0.00E+00	4.20E+00
		Fe-59	<8.42E+00	0.00E+00	8.42E+00
		Co-60	<8.91E+00	0.00E+00	8.91E+00
		Zn-65	<1.35E+01	0.00E+00	1.35E+01
		Zr-95	<1.14E+01	0.00E+00	1.14E+01
		Nb-95	<6.72E+00	0.00E+00	6.72E+00
		I-131	<5.33E+00	0.00E+00	5.33E+00
		Cs-134	<6.43E+00	0.00E+00	6.43E+00
		Cs-137	<7.24E+00	0.00E+00	7.24E+00
		BaLa-140	<1.14E+01	0.00E+00	1.14E+01
		Be-7	<4.23E+01	0.00E+00	4.23E+01
		K-40	6.74E+01	2.25E+01	2.02E+01
234528	3/5/2012 - 4/2/2012	Beta	1.88E+00	4.19E-01	1.31E+00
		Mn-54	<6.06E+00	0.00E+00	6.06E+00
		Co-58	<7.55E+00	0.00E+00	7.55E+00
		Fe-59	<1.24E+01	0.00E+00	1.24E+01
		Co-60	<6.23E+00	0.00E+00	6.23E+00
		Zn-65	<1.51E+01	0.00E+00	1.51E+01
		Zr-95	<1.24E+01	0.00E+00	1.24E+01
		Nb-95	<6.42E+00	0.00E+00	6.42E+00
		I-131	<7.78E+00	0.00E+00	7.78E+00
		Cs-134	<6.94E+00	0.00E+00	6.94E+00
		Cs-137	<7.65E+00	0.00E+00	7.65E+00
		BaLa-140	<9.94E+00	0.00E+00	9.94E+00
		Be-7	<4.58E+01	0.00E+00	4.58E+01
		K-40	1.40E+02	3.41E+01	8.66E+01
235756	4/2/2012 - 4/30/2012	Beta	1.91E+00	3.90E-01	1.18E+00
		Mn-54	<5.22E+00	0.00E+00	5.22E+00
		Co-58	<4.15E+00	0.00E+00	4.15E+00
		Fe-59	<1.68E+01	0.00E+00	1.68E+01
		Co-60	<9.85E+00	0.00E+00	9.85E+00
		Zn-65	<1.84E+01	0.00E+00	1.84E+01
		Zr-95	<8.79E+00	0.00E+00	8.79E+00
		Nb-95	<8.78E+00	0.00E+00	8.78E+00
		I-131	<7.18E+00	0.00E+00	7.18E+00
		Cs-134	<7.95E+00	0.00E+00	7.95E+00
		Cs-137	<8.90E+00	0.00E+00	8.90E+00
		BaLa-140	<5.95E+00	0.00E+00	5.95E+00
		Be-7	<6.02E+01	0.00E+00	6.02E+01
		K-40	2.15E+02	4.21E+01	6.34E+01
236824	4/30/2012 - 5/29/2012	Beta	1.24E+00	4.06E-01	1.31E+00
		Mn-54	<5.36E+00	0.00E+00	5.36E+00
		Co-58	<6.01E+00	0.00E+00	6.01E+00
		Fe-59	<8.78E+00	0.00E+00	8.78E+00
		Co-60	<6.99E+00	0.00E+00	6.99E+00
		Zn-65	<9.97E+00	0.00E+00	9.97E+00
		Zr-95	<8.23E+00	0.00E+00	8.23E+00
		Nb-95	<2.81E+00	0.00E+00	2.81E+00
		I-131	<5.51E+00	0.00E+00	5.51E+00
		Cs-134	<4.37E+00	0.00E+00	4.37E+00
		Cs-137	<6.01E+00	0.00E+00	6.01E+00
		BaLa-140	<4.46E+00	0.00E+00	4.46E+00
		Be-7	<4.64E+01	0.00E+00	4.64E+01
		K-40	1.81E+02	4.20E+01	6.08E+01



**MCGUIRE Radiological Environmental Monitoring Analysis Report - 2012 (Appendix E)**

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

Sample Point 119 [ INDICATOR - SSW @ 7.4 miles ]

Sample ID:	Sample Dates:	Nuclide	Activity	1 Sigma Error	LLD
236884	3/5/2012 - 5/29/2012	H3DW	4.80E+02	6.08E+01	1.74E+02
238753	5/29/2012 - 6/25/2012	Beta	1.66E+00	3.91E-01	1.20E+00
		Mn-54	<6.37E+00	0.00E+00	6.37E+00
		Co-58	<6.45E+00	0.00E+00	6.45E+00
		Fe-59	<1.49E+01	0.00E+00	1.49E+01
		Co-60	<1.24E+01	0.00E+00	1.24E+01
		Zn-65	<1.51E+01	0.00E+00	1.51E+01
		Zr-95	<1.38E+01	0.00E+00	1.38E+01
		Nb-95	<7.38E+00	0.00E+00	7.38E+00
		I-131	<8.40E+00	0.00E+00	8.40E+00
		Cs-134	<8.06E+00	0.00E+00	8.06E+00
		Cs-137	<8.42E+00	0.00E+00	8.42E+00
		BaLa-140	<7.76E+00	0.00E+00	7.76E+00
		Be-7	<5.31E+01	0.00E+00	5.31E+01
		K-40	1.08E+02	4.75E+01	7.44E+01
240360	6/25/2012 - 7/23/2012	Beta	1.82E+00	3.95E-01	1.20E+00
		Mn-54	<5.49E+00	0.00E+00	5.49E+00
		Co-58	<4.71E+00	0.00E+00	4.71E+00
		Fe-59	<1.09E+01	0.00E+00	1.09E+01
		Co-60	<7.85E+00	0.00E+00	7.85E+00
		Zn-65	<1.19E+01	0.00E+00	1.19E+01
		Zr-95	<1.02E+01	0.00E+00	1.02E+01
		Nb-95	<5.26E+00	0.00E+00	5.26E+00
		I-131	<4.65E+00	0.00E+00	4.65E+00
		Cs-134	<4.98E+00	0.00E+00	4.98E+00
		Cs-137	<6.53E+00	0.00E+00	6.53E+00
		BaLa-140	<6.22E+00	0.00E+00	6.22E+00
		Be-7	<3.87E+01	0.00E+00	3.87E+01
		K-40	8.80E+01	3.63E+01	6.85E+01
242150	7/23/2012 - 8/20/2012	Beta	2.75E+00	4.34E-01	1.27E+00
		Mn-54	<4.65E+00	0.00E+00	4.65E+00
		Co-58	<3.97E+00	0.00E+00	3.97E+00
		Fe-59	<1.05E+01	0.00E+00	1.05E+01
		Co-60	<8.08E+00	0.00E+00	8.08E+00
		Zn-65	<9.90E+00	0.00E+00	9.90E+00
		Zr-95	<7.86E+00	0.00E+00	7.86E+00
		Nb-95	<3.69E+00	0.00E+00	3.69E+00
		I-131	<4.43E+00	0.00E+00	4.43E+00
		Cs-134	<5.37E+00	0.00E+00	5.37E+00
		Cs-137	<6.10E+00	0.00E+00	6.10E+00
		BaLa-140	<4.84E+00	0.00E+00	4.84E+00
		Be-7	<3.53E+01	0.00E+00	3.53E+01
		K-40	<9.89E+01	0.00E+00	9.89E+01
242482	5/29/2012 - 8/20/2012	H3DW	4.70E+02	6.09E+01	1.74E+02
244169	8/20/2012 - 9/17/2012	Beta	1.83E+00	4.24E-01	1.31E+00
		Mn-54	<4.48E+00	0.00E+00	4.48E+00
		Co-58	<5.23E+00	0.00E+00	5.23E+00
		Fe-59	<8.35E+00	0.00E+00	8.35E+00
		Co-60	<7.20E+00	0.00E+00	7.20E+00
		Zn-65	<1.02E+01	0.00E+00	1.02E+01
		Zr-95	<9.03E+00	0.00E+00	9.03E+00
		Nb-95	<4.83E+00	0.00E+00	4.83E+00
		I-131	<5.01E+00	0.00E+00	5.01E+00
		Cs-134	<5.02E+00	0.00E+00	5.02E+00
		Cs-137	<4.54E+00	0.00E+00	4.54E+00
		BaLa-140	<3.55E+00	0.00E+00	3.55E+00
		Be-7	<4.20E+01	0.00E+00	4.20E+01
		K-40	2.06E+02	2.82E+01	6.08E+01



**MCGUIRE Radiological Environmental Monitoring Analysis Report - 2012 (Appendix E)**

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

Sample Point 119 [ INDICATOR - SSW @ 7.4 miles ]

Sample ID:	Sample Dates:	Nuclide	Activity	1 Sigma Error	LLD
247124	9/17/2012 - 10/15/2012	Beta	9.97E-01	4.22E-01	1.37E+00
		Mn-54	<4.32E+00	0.00E+00	4.32E+00
		Co-58	<4.84E+00	0.00E+00	4.84E+00
		Fe-59	<9.32E+00	0.00E+00	9.32E+00
		Co-60	<6.57E+00	0.00E+00	6.57E+00
		Zn-65	<8.60E+00	0.00E+00	8.60E+00
		Zr-95	<6.03E+00	0.00E+00	6.03E+00
		Nb-95	<4.84E+00	0.00E+00	4.84E+00
		I-131	<5.65E+00	0.00E+00	5.65E+00
		Cs-134	<5.01E+00	0.00E+00	5.01E+00
		Cs-137	<5.85E+00	0.00E+00	5.85E+00
		BaLa-140	<4.74E+00	0.00E+00	4.74E+00
		Be-7	<4.70E+01	0.00E+00	4.70E+01
		K-40	8.78E+01	2.82E+01	5.84E+01

Sample ID:	Sample Dates:	Nuclide	Activity	1 Sigma Error	LLD
248376	10/15/2012 - 11/12/2012	Beta	1.12E+00	4.24E-01	1.36E+00
		Mn-54	<4.56E+00	0.00E+00	4.56E+00
		Co-58	<4.52E+00	0.00E+00	4.52E+00
		Fe-59	<9.47E+00	0.00E+00	9.47E+00
		Co-60	<6.92E+00	0.00E+00	6.92E+00
		Zn-65	<1.11E+01	0.00E+00	1.11E+01
		Zr-95	<5.56E+00	0.00E+00	5.56E+00
		Nb-95	<4.71E+00	0.00E+00	4.71E+00
		I-131	<5.19E+00	0.00E+00	5.19E+00
		Cs-134	<5.34E+00	0.00E+00	5.34E+00
		Cs-137	<5.03E+00	0.00E+00	5.03E+00
		BaLa-140	<7.30E+00	0.00E+00	7.30E+00
		Be-7	<3.55E+01	0.00E+00	3.55E+01
		K-40	<8.78E+01	0.00E+00	8.78E+01

Sample ID:	Sample Dates:	Nuclide	Activity	1 Sigma Error	LLD
249024	8/20/2012 - 12/10/2012	H3DW	5.21E+02	6.15E+01	1.75E+02

Sample ID:	Sample Dates:	Nuclide	Activity	1 Sigma Error	LLD
249465	11/12/2012 - 12/10/2012	Beta	2.79E+00	4.16E-01	1.20E+00
		Mn-54	<5.57E+00	0.00E+00	5.57E+00
		Co-58	<4.61E+00	0.00E+00	4.61E+00
		Fe-59	<8.48E+00	0.00E+00	8.48E+00
		Co-60	<1.04E+01	0.00E+00	1.04E+01
		Zn-65	<1.30E+01	0.00E+00	1.30E+01
		Zr-95	<9.22E+00	0.00E+00	9.22E+00
		Nb-95	<5.73E+00	0.00E+00	5.73E+00
		I-131	<5.37E+00	0.00E+00	5.37E+00
		Cs-134	<5.96E+00	0.00E+00	5.96E+00
		Cs-137	<7.28E+00	0.00E+00	7.28E+00
		BaLa-140	<6.96E+00	0.00E+00	6.96E+00
		Be-7	<4.40E+01	0.00E+00	4.40E+01
		K-40	<8.94E+01	0.00E+00	8.94E+01

Sample Point 132 [ INDICATOR - SSE @ 11.1 miles ]

Sample ID:	Sample Dates:	Nuclide	Activity	1 Sigma Error	LLD
227340	12/12/2011 - 1/9/2012	Beta	6.46E-01	3.87E-01	1.27E+00
		Mn-54	<5.00E+00	0.00E+00	5.00E+00
		Co-58	<7.82E+00	0.00E+00	7.82E+00
		Fe-59	<1.59E+01	0.00E+00	1.59E+01
		Co-60	<8.89E+00	0.00E+00	8.89E+00
		Zn-65	<1.30E+01	0.00E+00	1.30E+01
		Zr-95	<8.70E+00	0.00E+00	8.70E+00
		Nb-95	<5.49E+00	0.00E+00	5.49E+00
		I-131	<6.42E+00	0.00E+00	6.42E+00
		Cs-134	<6.21E+00	0.00E+00	6.21E+00
		Cs-137	<7.62E+00	0.00E+00	7.62E+00
		BaLa-140	<1.12E+01	0.00E+00	1.12E+01
		Be-7	<7.08E+01	0.00E+00	7.08E+01
		K-40	<1.14E+02	0.00E+00	1.14E+02



**MCGUIRE Radiological Environmental Monitoring Analysis Report - 2012 (Appendix E)**

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

Sample Point 132 [ INDICATOR - SSE @ 11.1 miles ]

Sample ID:	Sample Dates:	Nuclide	Activity	1 Sigma Error	LLD
229451	1/9/2012 - 2/6/2012	Beta	1.43E+00	3.97E-01	1.24E+00
		Mn-54	<4.51E+00	0.00E+00	4.51E+00
		Co-58	<4.44E+00	0.00E+00	4.44E+00
		Fe-59	<9.09E+00	0.00E+00	9.09E+00
		Co-60	<6.11E+00	0.00E+00	6.11E+00
		Zn-65	<1.50E+01	0.00E+00	1.50E+01
		Zr-95	<8.26E+00	0.00E+00	8.26E+00
		Nb-95	<4.88E+00	0.00E+00	4.88E+00
		I-131	<4.59E+00	0.00E+00	4.59E+00
		Cs-134	<4.87E+00	0.00E+00	4.87E+00
		Cs-137	<6.08E+00	0.00E+00	6.08E+00
		BaLa-140	<6.95E+00	0.00E+00	6.95E+00
		Be-7	<3.89E+01	0.00E+00	3.89E+01
		K-40	1.08E+02	3.25E+01	5.94E+01
231145	12/12/2011 - 3/5/2012	H3DW	5.55E+02	6.04E+01	1.68E+02
231671	2/6/2012 - 3/5/2012	Beta	1.94E+00	4.02E-01	1.22E+00
		Mn-54	<5.34E+00	0.00E+00	5.34E+00
		Co-58	<6.63E+00	0.00E+00	6.63E+00
		Fe-59	<8.34E+00	0.00E+00	8.34E+00
		Co-60	<8.80E+00	0.00E+00	8.80E+00
		Zn-65	<1.34E+01	0.00E+00	1.34E+01
		Zr-95	<6.34E+00	0.00E+00	6.34E+00
		Nb-95	<5.43E+00	0.00E+00	5.43E+00
		I-131	<7.07E+00	0.00E+00	7.07E+00
		Cs-134	<5.50E+00	0.00E+00	5.50E+00
		Cs-137	<6.16E+00	0.00E+00	6.16E+00
		BaLa-140	<6.84E+00	0.00E+00	6.84E+00
		Be-7	3.25E+01	2.00E+01	3.24E+01
		K-40	5.90E+01	2.09E+01	9.51E+01
234529	3/5/2012 - 4/2/2012	Beta	1.19E+00	4.06E-01	1.32E+00
		Mn-54	<3.23E+00	0.00E+00	3.23E+00
		Co-58	<4.53E+00	0.00E+00	4.53E+00
		Fe-59	<6.60E+00	0.00E+00	6.60E+00
		Co-60	<5.89E+00	0.00E+00	5.89E+00
		Zn-65	<8.98E+00	0.00E+00	8.98E+00
		Zr-95	<8.56E+00	0.00E+00	8.56E+00
		Nb-95	<4.43E+00	0.00E+00	4.43E+00
		I-131	<5.34E+00	0.00E+00	5.34E+00
		Cs-134	<4.71E+00	0.00E+00	4.71E+00
		Cs-137	<5.13E+00	0.00E+00	5.13E+00
		BaLa-140	<7.20E+00	0.00E+00	7.20E+00
		Be-7	<4.23E+01	0.00E+00	4.23E+01
		K-40	1.26E+02	2.82E+01	5.55E+01
235757	4/2/2012 - 4/30/2012	Beta	2.28E+00	4.01E-01	1.18E+00
		Mn-54	<5.46E+00	0.00E+00	5.46E+00
		Co-58	<6.92E+00	0.00E+00	6.92E+00
		Fe-59	<1.44E+01	0.00E+00	1.44E+01
		Co-60	<7.99E+00	0.00E+00	7.99E+00
		Zn-65	<1.40E+01	0.00E+00	1.40E+01
		Zr-95	<8.11E+00	0.00E+00	8.11E+00
		Nb-95	<6.92E+00	0.00E+00	6.92E+00
		I-131	<5.98E+00	0.00E+00	5.98E+00
		Cs-134	<5.45E+00	0.00E+00	5.45E+00
		Cs-137	<6.96E+00	0.00E+00	6.96E+00
		BaLa-140	<2.56E+00	0.00E+00	2.56E+00
		Be-7	<6.12E+01	0.00E+00	6.12E+01
		K-40	<1.03E+02	0.00E+00	1.03E+02
236825	4/30/2012 - 5/29/2012	Beta	8.56E-01	4.00E-01	1.32E+00
		Mn-54	<4.52E+00	0.00E+00	4.52E+00



**MCGUIRE Radiological Environmental Monitoring Analysis Report - 2012 (Appendix E)**

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

Sample Point 132 [ INDICATOR - SSE @ 11.1 miles ]

Sample ID:	Sample Dates:	Nuclide	Activity	1 Sigma Error	LLD
236825	4/30/2012 - 5/29/2012	Co-58	<5.02E+00	0.00E+00	5.02E+00
		Fe-59	<9.85E+00	0.00E+00	9.85E+00
		Co-60	<7.28E+00	0.00E+00	7.28E+00
		Zn-65	<8.49E+00	0.00E+00	8.49E+00
		Zr-95	<6.88E+00	0.00E+00	6.88E+00
		Nb-95	<4.94E+00	0.00E+00	4.94E+00
		I-131	<5.57E+00	0.00E+00	5.57E+00
		Cs-134	<4.45E+00	0.00E+00	4.45E+00
		Cs-137	<5.69E+00	0.00E+00	5.69E+00
		BaLa-140	<6.22E+00	0.00E+00	6.22E+00
		Be-7	4.22E+01	2.04E+01	3.66E+01
		K-40	1.67E+02	3.12E+01	5.46E+01

Sample ID:	Sample Dates:	Nuclide	Activity	1 Sigma Error	LLD
236885	3/5/2012 - 5/29/2012	H3DW	6.19E+02	6.30E+01	1.74E+02

Sample ID:	Sample Dates:	Nuclide	Activity	1 Sigma Error	LLD
238754	5/29/2012 - 6/25/2012	Beta	1.21E+00	3.83E-01	1.21E+00
		Mn-54	<5.54E+00	0.00E+00	5.54E+00
		Co-58	<3.75E+00	0.00E+00	3.75E+00
		Fe-59	<3.10E+00	0.00E+00	3.10E+00
		Co-60	<9.73E+00	0.00E+00	9.73E+00
		Zn-65	<1.85E+01	0.00E+00	1.85E+01
		Zr-95	<1.22E+01	0.00E+00	1.22E+01
		Nb-95	<4.96E+00	0.00E+00	4.96E+00
		I-131	<6.26E+00	0.00E+00	6.26E+00
		Cs-134	<6.56E+00	0.00E+00	6.56E+00
		Cs-137	<7.75E+00	0.00E+00	7.75E+00
		BaLa-140	<8.72E+00	0.00E+00	8.72E+00
		Be-7	<5.95E+01	0.00E+00	5.95E+01
K-40	<9.81E+01	0.00E+00	9.81E+01		

Sample ID:	Sample Dates:	Nuclide	Activity	1 Sigma Error	LLD
240361	6/25/2012 - 7/23/2012	Beta	1.55E+00	3.92E-01	1.21E+00
		Mn-54	<6.03E+00	0.00E+00	6.03E+00
		Co-58	<7.85E+00	0.00E+00	7.85E+00
		Fe-59	<1.36E+01	0.00E+00	1.36E+01
		Co-60	<1.02E+01	0.00E+00	1.02E+01
		Zn-65	<1.68E+01	0.00E+00	1.68E+01
		Zr-95	<8.59E+00	0.00E+00	8.59E+00
		Nb-95	<7.99E+00	0.00E+00	7.99E+00
		I-131	<7.70E+00	0.00E+00	7.70E+00
		Cs-134	<5.61E+00	0.00E+00	5.61E+00
		Cs-137	<4.88E+00	0.00E+00	4.88E+00
		BaLa-140	<2.82E+00	0.00E+00	2.82E+00
		Be-7	<4.79E+01	0.00E+00	4.79E+01
		K-40	<1.52E+02	0.00E+00	1.52E+02

Sample ID:	Sample Dates:	Nuclide	Activity	1 Sigma Error	LLD
242151	7/23/2012 - 8/20/2012	Beta	2.07E+00	4.22E-01	1.28E+00
		Mn-54	<7.21E+00	0.00E+00	7.21E+00
		Co-58	<9.44E+00	0.00E+00	9.44E+00
		Fe-59	<1.20E+01	0.00E+00	1.20E+01
		Co-60	<1.08E+01	0.00E+00	1.08E+01
		Zn-65	<1.64E+01	0.00E+00	1.64E+01
		Zr-95	<1.35E+01	0.00E+00	1.35E+01
		Nb-95	<4.96E+00	0.00E+00	4.96E+00
		I-131	<6.44E+00	0.00E+00	6.44E+00
		Cs-134	<7.47E+00	0.00E+00	7.47E+00
		Cs-137	<7.07E+00	0.00E+00	7.07E+00
		BaLa-140	<1.03E+01	0.00E+00	1.03E+01
		Be-7	<5.87E+01	0.00E+00	5.87E+01
		K-40	<1.39E+02	0.00E+00	1.39E+02

Sample ID:	Sample Dates:	Nuclide	Activity	1 Sigma Error	LLD
242483	5/29/2012 - 8/20/2012	H3DW	6.48E+02	6.37E+01	1.74E+02

Sample ID:	Sample Dates:	Nuclide	Activity	1 Sigma Error	LLD
244170	8/20/2012 - 9/17/2012	Beta	2.10E+00	4.33E-01	1.32E+00



**MCGUIRE Radiological Environmental Monitoring Analysis Report - 2012 (Appendix E)**

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

Sample Point 132 [ INDICATOR - SSE @ 11.1 miles ]

Sample ID:	Sample Dates:	Nuclide	Activity	1 Sigma Error	LLD
244170	8/20/2012 - 9/17/2012	Mn-54	<4.00E+00	0.00E+00	4.00E+00
		Co-58	<4.24E+00	0.00E+00	4.24E+00
		Fe-59	<1.02E+01	0.00E+00	1.02E+01
		Co-60	<8.29E+00	0.00E+00	8.29E+00
		Zn-65	<9.60E+00	0.00E+00	9.60E+00
		Zr-95	<9.40E+00	0.00E+00	9.40E+00
		Nb-95	<4.44E+00	0.00E+00	4.44E+00
		I-131	<3.90E+00	0.00E+00	3.90E+00
		Cs-134	<5.27E+00	0.00E+00	5.27E+00
		Cs-137	<6.01E+00	0.00E+00	6.01E+00
		BaLa-140	<7.66E+00	0.00E+00	7.66E+00
		Be-7	<3.52E+01	0.00E+00	3.52E+01
		K-40	2.12E+02	3.50E+01	6.76E+01

Sample ID:	Sample Dates:	Nuclide	Activity	1 Sigma Error	LLD
247125	9/17/2012 - 10/15/2012	Beta	8.69E-01	4.20E-01	1.38E+00
		Mn-54	<5.61E+00	0.00E+00	5.61E+00
		Co-58	<6.14E+00	0.00E+00	6.14E+00
		Fe-59	<1.07E+01	0.00E+00	1.07E+01
		Co-60	<1.02E+01	0.00E+00	1.02E+01
		Zn-65	<1.38E+01	0.00E+00	1.38E+01
		Zr-95	<1.00E+01	0.00E+00	1.00E+01
		Nb-95	<7.56E+00	0.00E+00	7.56E+00
		I-131	<5.45E+00	0.00E+00	5.45E+00
		Cs-134	<6.55E+00	0.00E+00	6.55E+00
		Cs-137	<8.69E+00	0.00E+00	8.69E+00
		BaLa-140	<2.56E+00	0.00E+00	2.56E+00
		Be-7	<5.42E+01	0.00E+00	5.42E+01
		K-40	<1.25E+02	0.00E+00	1.25E+02

Sample ID:	Sample Dates:	Nuclide	Activity	1 Sigma Error	LLD
248377	10/15/2012 - 11/12/2012	Beta	1.25E+00	4.29E-01	1.37E+00
		Mn-54	<4.50E+00	0.00E+00	4.50E+00
		Co-58	<3.06E+00	0.00E+00	3.06E+00
		Fe-59	<1.06E+01	0.00E+00	1.06E+01
		Co-60	<7.36E+00	0.00E+00	7.36E+00
		Zn-65	<1.11E+01	0.00E+00	1.11E+01
		Zr-95	<9.13E+00	0.00E+00	9.13E+00
		Nb-95	<5.33E+00	0.00E+00	5.33E+00
		I-131	<5.07E+00	0.00E+00	5.07E+00
		Cs-134	<5.32E+00	0.00E+00	5.32E+00
		Cs-137	<5.23E+00	0.00E+00	5.23E+00
		BaLa-140	<6.18E+00	0.00E+00	6.18E+00
		Be-7	<3.94E+01	0.00E+00	3.94E+01
		K-40	9.52E+01	2.40E+01	6.12E+01

Sample ID:	Sample Dates:	Nuclide	Activity	1 Sigma Error	LLD
249025	8/20/2012 - 12/10/2012	H3DW	5.64E+02	6.21E+01	1.75E+02

Sample ID:	Sample Dates:	Nuclide	Activity	1 Sigma Error	LLD
249466	11/12/2012 - 12/10/2012	Beta	2.59E+00	4.14E-01	1.21E+00
		Mn-54	<8.25E+00	0.00E+00	8.25E+00
		Co-58	<6.15E+00	0.00E+00	6.15E+00
		Fe-59	<1.17E+01	0.00E+00	1.17E+01
		Co-60	<1.16E+01	0.00E+00	1.16E+01
		Zn-65	<1.51E+01	0.00E+00	1.51E+01
		Zr-95	<8.80E+00	0.00E+00	8.80E+00
		Nb-95	<7.77E+00	0.00E+00	7.77E+00
		I-131	<8.12E+00	0.00E+00	8.12E+00
		Cs-134	<7.45E+00	0.00E+00	7.45E+00
		Cs-137	<6.76E+00	0.00E+00	6.76E+00
		BaLa-140	<1.05E+01	0.00E+00	1.05E+01
		Be-7	<5.71E+01	0.00E+00	5.71E+01
		K-40	1.32E+02	3.30E+01	2.23E+01

Sample Point 136 [ CONTROL - NNE @ 12.7 miles ]

Sample ID:	Sample Dates:	Nuclide	Activity	1 Sigma Error	LLD
227341	12/12/2011 - 1/9/2012	Beta	1.28E+00	4.00E-01	1.26E+00





**MC GUIRE Radiological Environmental Monitoring Analysis Report - 2012 (Appendix E)**

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

Sample Point 136 [ CONTROL - NNE @ 12.7 miles ]

Sample ID:	Sample Dates:	Nuclide	Activity	1 Sigma Error	LLD
227341	12/12/2011 - 1/9/2012	Mn-54	<3.91E+00	0.00E+00	3.91E+00
		Co-58	<5.60E+00	0.00E+00	5.60E+00
		Fe-59	<1.06E+01	0.00E+00	1.06E+01
		Co-60	<7.17E+00	0.00E+00	7.17E+00
		Zn-65	<7.60E+00	0.00E+00	7.60E+00
		Zr-95	<8.00E+00	0.00E+00	8.00E+00
		Nb-95	<5.05E+00	0.00E+00	5.05E+00
		I-131	<5.43E+00	0.00E+00	5.43E+00
		Cs-134	<4.50E+00	0.00E+00	4.50E+00
		Cs-137	<5.21E+00	0.00E+00	5.21E+00
		BaLa-140	<7.29E+00	0.00E+00	7.29E+00
		Be-7	<2.91E+01	0.00E+00	2.91E+01
		K-40	<1.08E+02	0.00E+00	1.08E+02

Sample ID:	Sample Dates:	Nuclide	Activity	1 Sigma Error	LLD
229452	1/9/2012 - 2/6/2012	Beta	1.47E+00	3.95E-01	1.23E+00
		Mn-54	<9.08E+00	0.00E+00	9.08E+00
		Co-58	<6.76E+00	0.00E+00	6.76E+00
		Fe-59	<1.43E+01	0.00E+00	1.43E+01
		Co-60	<9.97E+00	0.00E+00	9.97E+00
		Zn-65	<1.93E+01	0.00E+00	1.93E+01
		Zr-95	<1.15E+01	0.00E+00	1.15E+01
		Nb-95	<8.45E+00	0.00E+00	8.45E+00
		I-131	<9.66E+00	0.00E+00	9.66E+00
		Cs-134	<7.12E+00	0.00E+00	7.12E+00
		Cs-137	<7.64E+00	0.00E+00	7.64E+00
		BaLa-140	<7.60E+00	0.00E+00	7.60E+00
		Be-7	<5.07E+01	0.00E+00	5.07E+01
		K-40	1.40E+02	3.41E+01	2.23E+01

Sample ID:	Sample Dates:	Nuclide	Activity	1 Sigma Error	LLD
231146	12/12/2011 - 3/5/2012	H3DW	<1.05E+02	0.00E+00	1.68E+02

Sample ID:	Sample Dates:	Nuclide	Activity	1 Sigma Error	LLD
231672	2/6/2012 - 3/5/2012	Beta	1.90E+00	3.99E-01	1.21E+00
		Mn-54	<4.36E+00	0.00E+00	4.36E+00
		Co-58	<5.73E+00	0.00E+00	5.73E+00
		Fe-59	<1.02E+01	0.00E+00	1.02E+01
		Co-60	<7.54E+00	0.00E+00	7.54E+00
		Zn-65	<1.09E+01	0.00E+00	1.09E+01
		Zr-95	<1.01E+01	0.00E+00	1.01E+01
		Nb-95	<5.65E+00	0.00E+00	5.65E+00
		I-131	<4.29E+00	0.00E+00	4.29E+00
		Cs-134	<5.54E+00	0.00E+00	5.54E+00
		Cs-137	<6.67E+00	0.00E+00	6.67E+00
		BaLa-140	<6.57E+00	0.00E+00	6.57E+00
		Be-7	<3.71E+01	0.00E+00	3.71E+01
		K-40	9.16E+01	2.45E+01	4.50E+01

Sample ID:	Sample Dates:	Nuclide	Activity	1 Sigma Error	LLD
234530	3/5/2012 - 4/2/2012	Beta	1.21E+00	4.04E-01	1.31E+00
		Mn-54	<4.90E+00	0.00E+00	4.90E+00
		Co-58	<4.56E+00	0.00E+00	4.56E+00
		Fe-59	<8.13E+00	0.00E+00	8.13E+00
		Co-60	<7.10E+00	0.00E+00	7.10E+00
		Zn-65	<8.02E+00	0.00E+00	8.02E+00
		Zr-95	<1.05E+01	0.00E+00	1.05E+01
		Nb-95	<5.44E+00	0.00E+00	5.44E+00
		I-131	<3.70E+00	0.00E+00	3.70E+00
		Cs-134	<5.11E+00	0.00E+00	5.11E+00
		Cs-137	<5.86E+00	0.00E+00	5.86E+00
		BaLa-140	<5.03E+00	0.00E+00	5.03E+00
		Be-7	<4.64E+01	0.00E+00	4.64E+01
		K-40	1.09E+02	2.18E+01	4.20E+01

Sample ID:	Sample Dates:	Nuclide	Activity	1 Sigma Error	LLD
235758	4/2/2012 - 4/30/2012	Beta	2.20E+00	3.98E-01	1.18E+00
		Mn-54	<4.76E+00	0.00E+00	4.76E+00
		Co-58	<4.12E+00	0.00E+00	4.12E+00



# MCGUIRE Radiological Environmental Monitoring Analysis Report - 2012 (Appendix E)

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

Sample Point 136 [ CONTROL - NNE @ 12.7 miles ]

Sample ID:	Sample Dates:	Nuclide	Activity	1 Sigma Error	LLD
235758	4/2/2012 - 4/30/2012	Fe-59	<7.87E+00	0.00E+00	7.87E+00
		Co-60	<4.98E+00	0.00E+00	4.98E+00
		Zn-65	<7.65E+00	0.00E+00	7.65E+00
		Zr-95	<1.05E+01	0.00E+00	1.05E+01
		Nb-95	<5.51E+00	0.00E+00	5.51E+00
		I-131	<4.56E+00	0.00E+00	4.56E+00
		Cs-134	<4.60E+00	0.00E+00	4.60E+00
		Cs-137	<4.54E+00	0.00E+00	4.54E+00
		BaLa-140	<5.07E+00	0.00E+00	5.07E+00
		Be-7	<3.28E+01	0.00E+00	3.28E+01
		K-40	1.91E+02	3.52E+01	4.40E+01
236826	4/30/2012 - 5/29/2012	Beta	1.45E+00	4.12E-01	1.32E+00
		Mn-54	<4.88E+00	0.00E+00	4.88E+00
		Co-58	<4.68E+00	0.00E+00	4.68E+00
		Fe-59	<1.22E+01	0.00E+00	1.22E+01
		Co-60	<7.01E+00	0.00E+00	7.01E+00
		Zn-65	<1.00E+01	0.00E+00	1.00E+01
		Zr-95	<8.52E+00	0.00E+00	8.52E+00
		Nb-95	<3.41E+00	0.00E+00	3.41E+00
		I-131	<4.89E+00	0.00E+00	4.89E+00
		Cs-134	<4.42E+00	0.00E+00	4.42E+00
		Cs-137	<5.31E+00	0.00E+00	5.31E+00
		BaLa-140	<4.78E+00	0.00E+00	4.78E+00
		Be-7	<3.79E+01	0.00E+00	3.79E+01
		K-40	1.77E+02	3.39E+01	5.40E+01
236886	3/5/2012 - 5/29/2012	H3DW	<-2.3E+01	0.00E+00	1.74E+02
238755	5/29/2012 - 6/25/2012	Beta	1.54E+00	3.89E-01	1.20E+00
		Mn-54	<6.13E+00	0.00E+00	6.13E+00
		Co-58	<4.82E+00	0.00E+00	4.82E+00
		Fe-59	<1.49E+01	0.00E+00	1.49E+01
		Co-60	<1.15E+01	0.00E+00	1.15E+01
		Zn-65	<1.51E+01	0.00E+00	1.51E+01
		Zr-95	<8.68E+00	0.00E+00	8.68E+00
		Nb-95	<6.44E+00	0.00E+00	6.44E+00
		I-131	<6.67E+00	0.00E+00	6.67E+00
		Cs-134	<7.00E+00	0.00E+00	7.00E+00
		Cs-137	<8.90E+00	0.00E+00	8.90E+00
		BaLa-140	<7.80E+00	0.00E+00	7.80E+00
		Be-7	<4.01E+01	0.00E+00	4.01E+01
		K-40	<7.68E+01	0.00E+00	7.68E+01
240362	6/25/2012 - 7/23/2012	Beta	1.90E+00	3.98E-01	1.21E+00
		Mn-54	<2.86E+00	0.00E+00	2.86E+00
		Co-58	<3.82E+00	0.00E+00	3.82E+00
		Fe-59	<8.39E+00	0.00E+00	8.39E+00
		Co-60	<6.01E+00	0.00E+00	6.01E+00
		Zn-65	<1.02E+01	0.00E+00	1.02E+01
		Zr-95	<6.89E+00	0.00E+00	6.89E+00
		Nb-95	<4.43E+00	0.00E+00	4.43E+00
		I-131	<5.15E+00	0.00E+00	5.15E+00
		Cs-134	<4.95E+00	0.00E+00	4.95E+00
		Cs-137	<5.83E+00	0.00E+00	5.83E+00
		BaLa-140	<5.32E+00	0.00E+00	5.32E+00
		Be-7	<3.77E+01	0.00E+00	3.77E+01
		K-40	1.33E+02	2.28E+01	3.51E+01
242152	7/23/2012 - 8/20/2012	Beta	2.66E+00	4.32E-01	1.27E+00
		Mn-54	<7.43E+00	0.00E+00	7.43E+00
		Co-58	<6.38E+00	0.00E+00	6.38E+00
		Fe-59	<1.79E+01	0.00E+00	1.79E+01
		Co-60	<1.08E+01	0.00E+00	1.08E+01



**MCGUIRE Radiological Environmental Monitoring Analysis Report - 2012 (Appendix E)**

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

Sample Point 136 [ CONTROL - NNE @ 12.7 miles ]

Sample ID:	Sample Dates:	Nuclide	Activity	1 Sigma Error	LLD
242152	7/23/2012 - 8/20/2012	Zn-65	<1.84E+01	0.00E+00	1.84E+01
		Zr-95	<1.27E+01	0.00E+00	1.27E+01
		Nb-95	<7.48E+00	0.00E+00	7.48E+00
		I-131	<8.93E+00	0.00E+00	8.93E+00
		Cs-134	<7.09E+00	0.00E+00	7.09E+00
		Cs-137	<7.88E+00	0.00E+00	7.88E+00
		BaLa-140	<5.87E+00	0.00E+00	5.87E+00
		Be-7	<5.75E+01	0.00E+00	5.75E+01
		K-40	<1.15E+02	0.00E+00	1.15E+02
		242484	5/29/2012 - 8/20/2012	H3DW	<1.08E+02
244171	8/20/2012 - 9/17/2012	Beta	2.24E+00	4.34E-01	1.32E+00
		Mn-54	<4.78E+00	0.00E+00	4.78E+00
		Co-58	<4.24E+00	0.00E+00	4.24E+00
		Fe-59	<1.25E+01	0.00E+00	1.25E+01
		Co-60	<7.86E+00	0.00E+00	7.86E+00
		Zn-65	<1.02E+01	0.00E+00	1.02E+01
		Zr-95	<7.98E+00	0.00E+00	7.98E+00
		Nb-95	<4.54E+00	0.00E+00	4.54E+00
		I-131	<5.47E+00	0.00E+00	5.47E+00
		Cs-134	<3.78E+00	0.00E+00	3.78E+00
		Cs-137	<5.69E+00	0.00E+00	5.69E+00
		BaLa-140	<5.58E+00	0.00E+00	5.58E+00
		Be-7	<3.65E+01	0.00E+00	3.65E+01
		K-40	2.69E+02	3.22E+01	2.76E+01
		247126	9/17/2012 - 10/15/2012	Beta	1.21E+00
Mn-54	<7.52E+00			0.00E+00	7.52E+00
Co-58	<5.48E+00			0.00E+00	5.48E+00
Fe-59	<1.38E+01			0.00E+00	1.38E+01
Co-60	<9.87E+00			0.00E+00	9.87E+00
Zn-65	<1.19E+01			0.00E+00	1.19E+01
Zr-95	<1.19E+01			0.00E+00	1.19E+01
Nb-95	<5.54E+00			0.00E+00	5.54E+00
I-131	<6.90E+00			0.00E+00	6.90E+00
Cs-134	<5.76E+00			0.00E+00	5.76E+00
Cs-137	<8.67E+00			0.00E+00	8.67E+00
BaLa-140	<8.78E+00			0.00E+00	8.78E+00
Be-7	<5.05E+01			0.00E+00	5.05E+01
K-40	<1.25E+02			0.00E+00	1.25E+02
248378	10/15/2012 - 11/12/2012			Beta	6.65E-01
		Mn-54	<7.50E+00	0.00E+00	7.50E+00
		Co-58	<6.73E+00	0.00E+00	6.73E+00
		Fe-59	<1.15E+01	0.00E+00	1.15E+01
		Co-60	<1.29E+01	0.00E+00	1.29E+01
		Zn-65	<1.61E+01	0.00E+00	1.61E+01
		Zr-95	<1.33E+01	0.00E+00	1.33E+01
		Nb-95	<7.40E+00	0.00E+00	7.40E+00
		I-131	<7.06E+00	0.00E+00	7.06E+00
		Cs-134	<5.99E+00	0.00E+00	5.99E+00
		Cs-137	<7.88E+00	0.00E+00	7.88E+00
		BaLa-140	<2.60E+00	0.00E+00	2.60E+00
		Be-7	<4.29E+01	0.00E+00	4.29E+01
		K-40	7.59E+01	3.45E+01	8.13E+01
		249026	8/20/2012 - 12/10/2012	H3DW	<1.12E+02
249467	11/12/2012 - 12/10/2012	Beta	1.87E+00	3.96E-01	1.20E+00
		Mn-54	<4.99E+00	0.00E+00	4.99E+00
		Co-58	<4.58E+00	0.00E+00	4.58E+00
		Fe-59	<9.80E+00	0.00E+00	9.80E+00



**MCGUIRE Radiological Environmental Monitoring Analysis Report - 2012 (Appendix E)**

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

Sample Point 136 [ CONTROL - NNE @ 12.7 miles ]

Sample ID:	Sample Dates:	Nuclide	Activity	1 Sigma Error	LLD
249467	11/12/2012 - 12/10/2012	Co-60	<5.84E+00	0.00E+00	5.84E+00
		Zn-65	<1.04E+01	0.00E+00	1.04E+01
		Zr-95	<9.53E+00	0.00E+00	9.53E+00
		Nb-95	<5.79E+00	0.00E+00	5.79E+00
		I-131	<5.12E+00	0.00E+00	5.12E+00
		Cs-134	<4.16E+00	0.00E+00	4.16E+00
		Cs-137	<5.49E+00	0.00E+00	5.49E+00
		BaLa-140	<4.47E+00	0.00E+00	4.47E+00
		Be-7	<3.84E+01	0.00E+00	3.84E+01
		K-40	1.71E+02	2.57E+01	3.49E+01

Sample Point 194 [ INDICATOR - NNW @ 6.73 miles ]

Sample ID:	Sample Dates:	Nuclide	Activity	1 Sigma Error	LLD
227342	12/12/2011 - 1/9/2012	Beta	1.78E+00	4.12E-01	1.27E+00
		Mn-54	<5.42E+00	0.00E+00	5.42E+00
		Co-58	<4.60E+00	0.00E+00	4.60E+00
		Fe-59	<9.69E+00	0.00E+00	9.69E+00
		Co-60	<5.89E+00	0.00E+00	5.89E+00
		Zn-65	<1.29E+01	0.00E+00	1.29E+01
		Zr-95	<8.10E+00	0.00E+00	8.10E+00
		Nb-95	<6.28E+00	0.00E+00	6.28E+00
		I-131	<5.45E+00	0.00E+00	5.45E+00
		Cs-134	<5.05E+00	0.00E+00	5.05E+00
		Cs-137	<5.58E+00	0.00E+00	5.58E+00
		BaLa-140	<6.83E+00	0.00E+00	6.83E+00
		Be-7	<4.77E+01	0.00E+00	4.77E+01
		K-40	<9.62E+01	0.00E+00	9.62E+01

Sample ID:	Sample Dates:	Nuclide	Activity	1 Sigma Error	LLD
229453	1/9/2012 - 2/6/2012	Beta	1.92E+00	4.07E-01	1.23E+00
		Mn-54	<4.74E+00	0.00E+00	4.74E+00
		Co-58	<4.61E+00	0.00E+00	4.61E+00
		Fe-59	<8.48E+00	0.00E+00	8.48E+00
		Co-60	<8.21E+00	0.00E+00	8.21E+00
		Zn-65	<1.06E+01	0.00E+00	1.06E+01
		Zr-95	<5.52E+00	0.00E+00	5.52E+00
		Nb-95	<5.58E+00	0.00E+00	5.58E+00
		I-131	<4.92E+00	0.00E+00	4.92E+00
		Cs-134	<4.64E+00	0.00E+00	4.64E+00
		Cs-137	<4.76E+00	0.00E+00	4.76E+00
		BaLa-140	<4.41E+00	0.00E+00	4.41E+00
		Be-7	<3.44E+01	0.00E+00	3.44E+01
		K-40	2.22E+02	3.13E+01	4.43E+01

Sample ID:	Sample Dates:	Nuclide	Activity	1 Sigma Error	LLD
231147	12/12/2011 - 3/5/2012	H3DW	<1.20E+02	0.00E+00	1.69E+02

Sample ID:	Sample Dates:	Nuclide	Activity	1 Sigma Error	LLD
231673	2/6/2012 - 3/5/2012	Beta	2.20E+00	4.07E-01	1.21E+00
		Mn-54	<8.01E+00	0.00E+00	8.01E+00
		Co-58	<5.96E+00	0.00E+00	5.96E+00
		Fe-59	<1.49E+01	0.00E+00	1.49E+01
		Co-60	<1.10E+01	0.00E+00	1.10E+01
		Zn-65	<1.40E+01	0.00E+00	1.40E+01
		Zr-95	<9.27E+00	0.00E+00	9.27E+00
		Nb-95	<7.42E+00	0.00E+00	7.42E+00
		I-131	<5.52E+00	0.00E+00	5.52E+00
		Cs-134	<6.50E+00	0.00E+00	6.50E+00
		Cs-137	<8.08E+00	0.00E+00	8.08E+00
		BaLa-140	<1.26E+01	0.00E+00	1.26E+01
		Be-7	<3.81E+01	0.00E+00	3.81E+01
		K-40	<1.23E+02	0.00E+00	1.23E+02

Sample ID:	Sample Dates:	Nuclide	Activity	1 Sigma Error	LLD
234531	3/5/2012 - 4/2/2012	Beta	1.61E+00	4.13E-01	1.31E+00
		Mn-54	<7.50E+00	0.00E+00	7.50E+00
		Co-58	<6.33E+00	0.00E+00	6.33E+00
		Fe-59	<1.76E+01	0.00E+00	1.76E+01



**MCGUIRE Radiological Environmental Monitoring Analysis Report - 2012 (Appendix E)**

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

Sample Point 194 [ INDICATOR - NNW @ 6.73 miles ]

Sample ID:	Sample Dates:	Nuclide	Activity	1 Sigma Error	LLD
234531	3/5/2012 - 4/2/2012	Co-60	<6.89E+00	0.00E+00	6.89E+00
		Zn-65	<1.62E+01	0.00E+00	1.62E+01
		Zr-95	<1.30E+01	0.00E+00	1.30E+01
		Nb-95	<5.69E+00	0.00E+00	5.69E+00
		I-131	<7.89E+00	0.00E+00	7.89E+00
		Cs-134	<6.53E+00	0.00E+00	6.53E+00
		Cs-137	<7.24E+00	0.00E+00	7.24E+00
		BaLa-140	<1.04E+01	0.00E+00	1.04E+01
		Be-7	<6.91E+01	0.00E+00	6.91E+01
		K-40	<1.23E+02	0.00E+00	1.23E+02

Sample ID:	Sample Dates:	Nuclide	Activity	1 Sigma Error	LLD
235759	4/2/2012 - 4/30/2012	Beta	1.83E+00	3.88E-01	1.18E+00
		Mn-54	<5.23E+00	0.00E+00	5.23E+00
		Co-58	<5.30E+00	0.00E+00	5.30E+00
		Fe-59	<9.64E+00	0.00E+00	9.64E+00
		Co-60	<6.12E+00	0.00E+00	6.12E+00
		Zn-65	<1.15E+01	0.00E+00	1.15E+01
		Zr-95	<8.48E+00	0.00E+00	8.48E+00
		Nb-95	<4.80E+00	0.00E+00	4.80E+00
		I-131	<4.51E+00	0.00E+00	4.51E+00
		Cs-134	<4.22E+00	0.00E+00	4.22E+00
		Cs-137	<4.76E+00	0.00E+00	4.76E+00
		BaLa-140	<4.96E+00	0.00E+00	4.96E+00
		Be-7	<3.50E+01	0.00E+00	3.50E+01
		K-40	<1.03E+02	0.00E+00	1.03E+02

Sample ID:	Sample Dates:	Nuclide	Activity	1 Sigma Error	LLD
236827	4/30/2012 - 5/29/2012	Beta	1.93E+00	4.24E-01	1.32E+00
		Mn-54	<5.82E+00	0.00E+00	5.82E+00
		Co-58	<4.83E+00	0.00E+00	4.83E+00
		Fe-59	<9.82E+00	0.00E+00	9.82E+00
		Co-60	<5.90E+00	0.00E+00	5.90E+00
		Zn-65	<1.00E+01	0.00E+00	1.00E+01
		Zr-95	<6.42E+00	0.00E+00	6.42E+00
		Nb-95	<5.21E+00	0.00E+00	5.21E+00
		I-131	<4.76E+00	0.00E+00	4.76E+00
		Cs-134	<4.64E+00	0.00E+00	4.64E+00
		Cs-137	<6.18E+00	0.00E+00	6.18E+00
		BaLa-140	<6.78E+00	0.00E+00	6.78E+00
		Be-7	<4.18E+01	0.00E+00	4.18E+01
		K-40	<1.14E+02	0.00E+00	1.14E+02

Sample ID:	Sample Dates:	Nuclide	Activity	1 Sigma Error	LLD
236887	3/5/2012 - 5/29/2012	H3DW	1.99E+02	5.62E+01	1.74E+02

Sample ID:	Sample Dates:	Nuclide	Activity	1 Sigma Error	LLD
238756	5/29/2012 - 6/25/2012	Beta	1.38E+00	3.86E-01	1.20E+00
		Mn-54	<3.81E+00	0.00E+00	3.81E+00
		Co-58	<2.97E+00	0.00E+00	2.97E+00
		Fe-59	<6.41E+00	0.00E+00	6.41E+00
		Co-60	<5.64E+00	0.00E+00	5.64E+00
		Zn-65	<5.79E+00	0.00E+00	5.79E+00
		Zr-95	<6.33E+00	0.00E+00	6.33E+00
		Nb-95	<3.17E+00	0.00E+00	3.17E+00
		I-131	<3.27E+00	0.00E+00	3.27E+00
		Cs-134	<3.38E+00	0.00E+00	3.38E+00
		Cs-137	<4.58E+00	0.00E+00	4.58E+00
		BaLa-140	<4.44E+00	0.00E+00	4.44E+00
		Be-7	<2.43E+01	0.00E+00	2.43E+01
		K-40	1.53E+02	1.92E+01	3.46E+01

Sample ID:	Sample Dates:	Nuclide	Activity	1 Sigma Error	LLD
240363	6/25/2012 - 7/23/2012	Beta	1.86E+00	4.00E-01	1.22E+00
		Mn-54	<7.86E+00	0.00E+00	7.86E+00
		Co-58	<6.34E+00	0.00E+00	6.34E+00
		Fe-59	<3.09E+00	0.00E+00	3.09E+00
		Co-60	<7.18E+00	0.00E+00	7.18E+00
		Zn-65	<1.37E+01	0.00E+00	1.37E+01



# MCGUIRE Radiological Environmental Monitoring Analysis Report - 2012 (Appendix E)

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

Sample Point 194 [ INDICATOR - NNW @ 6.73 miles ]

Sample ID:	Sample Dates:	Nuclide	Activity	1 Sigma Error	LLD
240363	6/25/2012 - 7/23/2012	Zr-95	<9.81E+00	0.00E+00	9.81E+00
		Nb-95	<7.80E+00	0.00E+00	7.80E+00
		I-131	<7.38E+00	0.00E+00	7.38E+00
		Cs-134	<7.62E+00	0.00E+00	7.62E+00
		Cs-137	<6.85E+00	0.00E+00	6.85E+00
		BaLa-140	<1.01E+01	0.00E+00	1.01E+01
		Be-7	<5.56E+01	0.00E+00	5.56E+01
		K-40	<1.06E+02	0.00E+00	1.06E+02
242153	7/23/2012 - 8/20/2012	Beta	2.48E+00	4.28E-01	1.27E+00
		Mn-54	<7.56E+00	0.00E+00	7.56E+00
		Co-58	<7.20E+00	0.00E+00	7.20E+00
		Fe-59	<1.50E+01	0.00E+00	1.50E+01
		Co-60	<1.26E+01	0.00E+00	1.26E+01
		Zn-65	<1.54E+01	0.00E+00	1.54E+01
		Zr-95	<1.07E+01	0.00E+00	1.07E+01
		Nb-95	<5.30E+00	0.00E+00	5.30E+00
		I-131	<6.08E+00	0.00E+00	6.08E+00
		Cs-134	<7.93E+00	0.00E+00	7.93E+00
		Cs-137	<8.39E+00	0.00E+00	8.39E+00
		BaLa-140	<1.06E+01	0.00E+00	1.06E+01
		Be-7	<5.72E+01	0.00E+00	5.72E+01
		K-40	<1.31E+02	0.00E+00	1.31E+02
242485	5/29/2012 - 8/20/2012	H3DW	2.23E+02	5.68E+01	1.74E+02
244172	8/20/2012 - 9/17/2012	Beta	1.69E+00	4.22E-01	1.32E+00
		Mn-54	<5.29E+00	0.00E+00	5.29E+00
		Co-58	<4.64E+00	0.00E+00	4.64E+00
		Fe-59	<9.36E+00	0.00E+00	9.36E+00
		Co-60	<6.04E+00	0.00E+00	6.04E+00
		Zn-65	<1.14E+01	0.00E+00	1.14E+01
		Zr-95	<9.22E+00	0.00E+00	9.22E+00
		Nb-95	<5.98E+00	0.00E+00	5.98E+00
		I-131	<4.75E+00	0.00E+00	4.75E+00
		Cs-134	<4.11E+00	0.00E+00	4.11E+00
		Cs-137	<6.02E+00	0.00E+00	6.02E+00
		BaLa-140	<4.53E+00	0.00E+00	4.53E+00
		Be-7	<4.56E+01	0.00E+00	4.56E+01
		K-40	1.70E+02	4.09E+01	5.30E+01
247127	9/17/2012 - 10/15/2012	Beta	9.79E-01	4.26E-01	1.38E+00
		Mn-54	<7.37E+00	0.00E+00	7.37E+00
		Co-58	<6.33E+00	0.00E+00	6.33E+00
		Fe-59	<1.78E+01	0.00E+00	1.78E+01
		Co-60	<8.82E+00	0.00E+00	8.82E+00
		Zn-65	<1.51E+01	0.00E+00	1.51E+01
		Zr-95	<1.34E+01	0.00E+00	1.34E+01
		Nb-95	<9.12E+00	0.00E+00	9.12E+00
		I-131	<8.57E+00	0.00E+00	8.57E+00
		Cs-134	<6.86E+00	0.00E+00	6.86E+00
		Cs-137	<6.97E+00	0.00E+00	6.97E+00
		BaLa-140	<9.71E+00	0.00E+00	9.71E+00
		Be-7	<7.18E+01	0.00E+00	7.18E+01
		K-40	<1.52E+02	0.00E+00	1.52E+02
248379	10/15/2012 - 11/13/2012	Beta	9.26E-01	4.22E-01	1.37E+00
		Mn-54	<5.36E+00	0.00E+00	5.36E+00
		Co-58	<5.15E+00	0.00E+00	5.15E+00
		Fe-59	<9.97E+00	0.00E+00	9.97E+00
		Co-60	<6.53E+00	0.00E+00	6.53E+00
		Zn-65	<1.07E+01	0.00E+00	1.07E+01
		Zr-95	<9.66E+00	0.00E+00	9.66E+00
		Nb-95	<5.69E+00	0.00E+00	5.69E+00



**MCGUIRE Radiological Environmental Monitoring Analysis Report - 2012 (Appendix E)**

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

Sample Point 194 [ INDICATOR - NNW @ 6.73 miles ]

Sample ID:	Sample Dates:	Nuclide	Activity	1 Sigma Error	LLD
248379	10/15/2012 - 11/13/2012	I-131	<5.94E+00	0.00E+00	5.94E+00
		Cs-134	<5.83E+00	0.00E+00	5.83E+00
		Cs-137	<7.56E+00	0.00E+00	7.56E+00
		BaLa-140	<7.33E+00	0.00E+00	7.33E+00
		Be-7	<4.12E+01	0.00E+00	4.12E+01
		K-40	1.76E+02	4.96E+01	5.93E+01
249027	8/20/2012 - 12/10/2012	H3DW	<9.84E+01	0.00E+00	1.75E+02
249468	11/13/2012 - 12/10/2012	Beta	2.08E+00	4.00E-01	1.20E+00
		Mn-54	<6.80E+00	0.00E+00	6.80E+00
		Co-58	<4.85E+00	0.00E+00	4.85E+00
		Fe-59	<1.10E+01	0.00E+00	1.10E+01
		Co-60	<1.15E+01	0.00E+00	1.15E+01
		Zn-65	<1.58E+01	0.00E+00	1.58E+01
		Zr-95	<1.28E+01	0.00E+00	1.28E+01
		Nb-95	<5.39E+00	0.00E+00	5.39E+00
		I-131	<6.95E+00	0.00E+00	6.95E+00
		Cs-134	<8.36E+00	0.00E+00	8.36E+00
		Cs-137	<7.76E+00	0.00E+00	7.76E+00
		BaLa-140	<9.75E+00	0.00E+00	9.75E+00
		Be-7	3.97E+01	1.67E+01	4.95E+01
		K-40	<7.17E+01	0.00E+00	7.17E+01

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

Sample Point 129 [ INDICATOR - ENE @ 0.51 miles ]

Sample ID:	Sample Dates:	Nuclide	Activity	1 Sigma Error	LLD		
233515	4/9/2012 - 4/9/2012	Mn-54	<1.92E+01	0.00E+00	1.92E+01		
		Co-58	<1.94E+01	0.00E+00	1.94E+01		
		Fe-59	<5.27E+01	0.00E+00	5.27E+01		
		Co-60	<2.19E+01	0.00E+00	2.19E+01		
		Zn-65	<5.51E+01	0.00E+00	5.51E+01		
		Nb-95	<1.94E+01	0.00E+00	1.94E+01		
		I-131	<2.08E+01	0.00E+00	2.08E+01		
		Cs-134	<1.78E+01	0.00E+00	1.78E+01		
		Cs-137	<2.51E+01	0.00E+00	2.51E+01		
		Be-7	<1.42E+02	0.00E+00	1.42E+02		
		K-40	4.98E+03	2.70E+02	1.58E+02		
		Ag-110M	<1.58E+01	0.00E+00	1.58E+01		
		Sb-122	<3.37E+01	0.00E+00	3.37E+01		
		Sb-125	<4.72E+01	0.00E+00	4.72E+01		
		244943	10/2/2012 - 10/2/2012	Mn-54	<1.67E+01	0.00E+00	1.67E+01
				Co-58	<2.19E+01	0.00E+00	2.19E+01
				Fe-59	<5.20E+01	0.00E+00	5.20E+01
Co-60	<3.01E+01			0.00E+00	3.01E+01		
Zn-65	<4.57E+01			0.00E+00	4.57E+01		
Nb-95	<2.29E+01			0.00E+00	2.29E+01		
I-131	<1.69E+01			0.00E+00	1.69E+01		
Cs-134	<1.97E+01			0.00E+00	1.97E+01		
Cs-137	3.34E+01			9.95E+00	1.65E+01		
Be-7	<1.48E+02			0.00E+00	1.48E+02		
K-40	4.90E+03			2.77E+02	2.35E+02		
Ag-110M	<1.87E+01			0.00E+00	1.87E+01		
Sb-122	<4.42E+01			0.00E+00	4.42E+01		
Sb-125	<4.90E+01			0.00E+00	4.90E+01		

Sample Point 137 [ CONTROL - N @ 12 miles ]

Sample ID:	Sample Dates:	Nuclide	Activity	1 Sigma Error	LLD
233516	4/10/2012 - 4/10/2012	Mn-54	<1.47E+01	0.00E+00	1.47E+01
		Co-58	<1.48E+01	0.00E+00	1.48E+01
		Fe-59	<3.32E+01	0.00E+00	3.32E+01
		Co-60	<1.69E+01	0.00E+00	1.69E+01
		Zn-65	<3.86E+01	0.00E+00	3.86E+01



**MCGUIRE Radiological Environmental Monitoring Analysis Report - 2012 (Appendix E)**

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

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

Sample ID:	Sample Dates:	Nuclide	Activity	1 Sigma Error	LLD
233516	4/10/2012 - 4/10/2012	Nb-95	<1.33E+01	0.00E+00	1.33E+01
		I-131	<1.49E+01	0.00E+00	1.49E+01
		Cs-134	<1.50E+01	0.00E+00	1.50E+01
		Cs-137	4.45E+01	9.72E+00	1.37E+01
		Be-7	<1.18E+02	0.00E+00	1.18E+02
		K-40	6.46E+03	2.45E+02	1.78E+02
		Ag-110M	<1.43E+01	0.00E+00	1.43E+01
		Sb-122	<2.54E+01	0.00E+00	2.54E+01
		Sb-125	<4.30E+01	0.00E+00	4.30E+01

Sample ID:	Sample Dates:	Nuclide	Activity	1 Sigma Error	LLD
244944	10/1/2012 - 10/1/2012	Mn-54	<1.38E+01	0.00E+00	1.38E+01
		Co-58	<1.21E+01	0.00E+00	1.21E+01
		Fe-59	<2.37E+01	0.00E+00	2.37E+01
		Co-60	<1.97E+01	0.00E+00	1.97E+01
		Zn-65	<3.23E+01	0.00E+00	3.23E+01
		Nb-95	<1.12E+01	0.00E+00	1.12E+01
		I-131	<1.35E+01	0.00E+00	1.35E+01
		Cs-134	<1.12E+01	0.00E+00	1.12E+01
		Cs-137	<1.54E+01	0.00E+00	1.54E+01
		Be-7	<8.42E+01	0.00E+00	8.42E+01
		K-40	3.45E+03	2.08E+02	1.27E+02
		Ag-110M	<8.86E+00	0.00E+00	8.86E+00
		Sb-122	<3.12E+01	0.00E+00	3.12E+01
		Sb-125	<2.88E+01	0.00E+00	2.88E+01

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

**Sample Point 129 [ INDICATOR - ENE @ 0.51 miles ]**

Sample ID:	Sample Dates:	Nuclide	Activity	1 Sigma Error	LLD
233517	4/9/2012 - 4/9/2012	Mn-54	<1.52E+01	0.00E+00	1.52E+01
		Co-58	<2.39E+01	0.00E+00	2.39E+01
		Fe-59	<4.47E+01	0.00E+00	4.47E+01
		Co-60	<2.60E+01	0.00E+00	2.60E+01
		Zn-65	<6.28E+01	0.00E+00	6.28E+01
		Nb-95	<2.20E+01	0.00E+00	2.20E+01
		I-131	<1.76E+01	0.00E+00	1.76E+01
		Cs-134	<1.64E+01	0.00E+00	1.64E+01
		Cs-137	<1.68E+01	0.00E+00	1.68E+01
		Be-7	<1.10E+02	0.00E+00	1.10E+02
		K-40	2.86E+03	2.43E+02	1.93E+02
		Ag-110M	<1.93E+01	0.00E+00	1.93E+01
		Sb-122	<3.87E+01	0.00E+00	3.87E+01
		Sb-125	<3.93E+01	0.00E+00	3.93E+01

Sample ID:	Sample Dates:	Nuclide	Activity	1 Sigma Error	LLD
244945	10/1/2012 - 10/1/2012	Mn-54	<1.68E+01	0.00E+00	1.68E+01
		Co-58	<1.79E+01	0.00E+00	1.79E+01
		Fe-59	<5.26E+01	0.00E+00	5.26E+01
		Co-60	<2.43E+01	0.00E+00	2.43E+01
		Zn-65	<6.17E+01	0.00E+00	6.17E+01
		Nb-95	<1.56E+01	0.00E+00	1.56E+01
		I-131	<1.62E+01	0.00E+00	1.62E+01
		Cs-134	<1.97E+01	0.00E+00	1.97E+01
		Cs-137	<1.98E+01	0.00E+00	1.98E+01
		Be-7	<1.55E+02	0.00E+00	1.55E+02
		K-40	2.36E+03	2.52E+02	2.73E+02
		Ag-110M	<2.28E+01	0.00E+00	2.28E+01
		Sb-122	<4.96E+01	0.00E+00	4.96E+01
		Sb-125	<3.97E+01	0.00E+00	3.97E+01

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

Sample ID:	Sample Dates:	Nuclide	Activity	1 Sigma Error	LLD
233518	4/10/2012 - 4/10/2012	Mn-54	<2.11E+01	0.00E+00	2.11E+01
		Co-58	<2.02E+01	0.00E+00	2.02E+01
		Fe-59	<4.06E+01	0.00E+00	4.06E+01
		Co-60	<1.62E+01	0.00E+00	1.62E+01
		Zn-65	<4.21E+01	0.00E+00	4.21E+01





**MCGUIRE Radiological Environmental Monitoring Analysis Report - 2012 (Appendix E)**

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

Sample Point 137 [ CONTROL - N @ 12 miles ]

Sample ID:	Sample Dates:	Nuclide	Activity	1 Sigma Error	LLD
233518	4/10/2012 - 4/10/2012	Nb-95	<1.94E+01	0.00E+00	1.94E+01
		I-131	<1.56E+01	0.00E+00	1.56E+01
		Cs-134	<1.87E+01	0.00E+00	1.87E+01
		Cs-137	<1.56E+01	0.00E+00	1.56E+01
		Be-7	<1.09E+02	0.00E+00	1.09E+02
		K-40	3.19E+03	2.67E+02	1.63E+02
		Ag-110M	<1.70E+01	0.00E+00	1.70E+01
		Sb-122	<2.99E+01	0.00E+00	2.99E+01
		Sb-125	<5.42E+01	0.00E+00	5.42E+01

Sample ID:	Sample Dates:	Nuclide	Activity	1 Sigma Error	LLD
244946	10/1/2012 - 10/1/2012	Mn-54	<1.76E+01	0.00E+00	1.76E+01
		Co-58	<1.68E+01	0.00E+00	1.68E+01
		Fe-59	<3.81E+01	0.00E+00	3.81E+01
		Co-60	<2.49E+01	0.00E+00	2.49E+01
		Zn-65	<5.09E+01	0.00E+00	5.09E+01
		Nb-95	<1.98E+01	0.00E+00	1.98E+01
		I-131	<1.96E+01	0.00E+00	1.96E+01
		Cs-134	<1.71E+01	0.00E+00	1.71E+01
		Cs-137	<2.12E+01	0.00E+00	2.12E+01
		Be-7	<1.29E+02	0.00E+00	1.29E+02
		K-40	3.32E+03	2.17E+02	1.87E+02
		Ag-110M	<1.65E+01	0.00E+00	1.65E+01
		Sb-122	<3.95E+01	0.00E+00	3.95E+01
		Sb-125	<3.26E+01	0.00E+00	3.26E+01

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

Sample Point 129 [ INDICATOR - ENE @ 0.51 miles ]

Sample ID:	Sample Dates:	Nuclide	Activity	1 Sigma Error	LLD
233519	4/9/2012 - 4/9/2012	Mn-54	<2.18E+01	0.00E+00	2.18E+01
		Co-58	<1.36E+01	0.00E+00	1.36E+01
		Fe-59	<4.24E+01	0.00E+00	4.24E+01
		Co-60	<2.61E+01	0.00E+00	2.61E+01
		Zn-65	<4.88E+01	0.00E+00	4.88E+01
		Nb-95	<2.11E+01	0.00E+00	2.11E+01
		I-131	<1.96E+01	0.00E+00	1.96E+01
		Cs-134	<1.74E+01	0.00E+00	1.74E+01
		Cs-137	<2.24E+01	0.00E+00	2.24E+01
		Be-7	<1.30E+02	0.00E+00	1.30E+02
		K-40	5.40E+03	3.22E+02	2.50E+02
		Ag-110M	<1.70E+01	0.00E+00	1.70E+01
		Sb-122	<3.64E+01	0.00E+00	3.64E+01
		Sb-125	<4.61E+01	0.00E+00	4.61E+01

Sample ID:	Sample Dates:	Nuclide	Activity	1 Sigma Error	LLD
244947	10/1/2012 - 10/1/2012	Mn-54	<3.65E+01	0.00E+00	3.65E+01
		Co-58	<3.37E+01	0.00E+00	3.37E+01
		Fe-59	<5.93E+01	0.00E+00	5.93E+01
		Co-60	<4.21E+01	0.00E+00	4.21E+01
		Zn-65	<6.62E+01	0.00E+00	6.62E+01
		Nb-95	<2.88E+01	0.00E+00	2.88E+01
		I-131	<2.92E+01	0.00E+00	2.92E+01
		Cs-134	<2.41E+01	0.00E+00	2.41E+01
		Cs-137	<4.06E+01	0.00E+00	4.06E+01
		Be-7	<2.01E+02	0.00E+00	2.01E+02
		K-40	5.24E+03	4.05E+02	2.87E+02
		Ag-110M	<2.61E+01	0.00E+00	2.61E+01
		Sb-122	<5.67E+01	0.00E+00	5.67E+01
		Sb-125	<7.52E+01	0.00E+00	7.52E+01

Sample Point 137 [ CONTROL - N @ 12 miles ]

Sample ID:	Sample Dates:	Nuclide	Activity	1 Sigma Error	LLD
233520	4/10/2012 - 4/10/2012	Mn-54	<1.39E+01	0.00E+00	1.39E+01
		Co-58	<1.42E+01	0.00E+00	1.42E+01
		Fe-59	<2.72E+01	0.00E+00	2.72E+01
		Co-60	<1.74E+01	0.00E+00	1.74E+01
		Zn-65	<3.57E+01	0.00E+00	3.57E+01



**MCGUIRE Radiological Environmental Monitoring Analysis Report - 2012 (Appendix E)**

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

Sample Point 137 [ CONTROL - N @ 12 miles ]

Sample ID:	Sample Dates:	Nuclide	Activity	1 Sigma Error	LLD
233520	4/10/2012 - 4/10/2012	Nb-95	<1.44E+01	0.00E+00	1.44E+01
		I-131	<1.43E+01	0.00E+00	1.43E+01
		Cs-134	<1.42E+01	0.00E+00	1.42E+01
		Cs-137	<1.80E+01	0.00E+00	1.80E+01
		Be-7	<1.17E+02	0.00E+00	1.17E+02
		K-40	4.31E+03	2.20E+02	1.76E+02
		Ag-110M	<1.18E+01	0.00E+00	1.18E+01
		Sb-122	<2.03E+01	0.00E+00	2.03E+01
		Sb-125	<3.73E+01	0.00E+00	3.73E+01

Sample ID:	Sample Dates:	Nuclide	Activity	1 Sigma Error	LLD
244948	10/1/2012 - 10/1/2012	Mn-54	<2.00E+01	0.00E+00	2.00E+01
		Co-58	<1.86E+01	0.00E+00	1.86E+01
		Fe-59	<4.39E+01	0.00E+00	4.39E+01
		Co-60	<3.17E+01	0.00E+00	3.17E+01
		Zn-65	<4.63E+01	0.00E+00	4.63E+01
		Nb-95	<2.03E+01	0.00E+00	2.03E+01
		I-131	<1.15E+01	0.00E+00	1.15E+01
		Cs-134	<1.70E+01	0.00E+00	1.70E+01
		Cs-137	<2.11E+01	0.00E+00	2.11E+01
		Be-7	<1.66E+02	0.00E+00	1.66E+02
		K-40	3.83E+03	2.80E+02	2.18E+02
		Ag-110M	<1.72E+01	0.00E+00	1.72E+01
		Sb-122	<3.47E+01	0.00E+00	3.47E+01
		Sb-125	<3.64E+01	0.00E+00	3.64E+01

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

Sample Point 141 [ CONTROL - WNW @ 14.8 miles ]

Sample ID:	Sample Dates:	Nuclide	Activity	1 Sigma Error	LLD
227251	1/3/2012 - 1/3/2012	Be-7	<4.64E+00	0.00E+00	4.64E+00
		K-40	1.77E+01	3.48E+00	7.31E+00
		LLI-131	<5.75E-01	0.00E+00	5.75E-01
		I-131	<5.45E+00	0.00E+00	5.45E+00
		Cs-134	<5.18E+00	0.00E+00	5.18E+00
		Cs-137	<5.83E+00	0.00E+00	5.83E+00
		BaLa-140	<4.38E+00	0.00E+00	4.38E+00
		Be-7	<4.66E+01	0.00E+00	4.66E+01
		K-40	1.51E+03	7.63E+01	4.03E+01

Sample ID:	Sample Dates:	Nuclide	Activity	1 Sigma Error	LLD
227554	1/16/2012 - 1/16/2012	Be-7	<5.06E+00	0.00E+00	5.06E+00
		K-40	<1.94E+01	0.00E+00	1.94E+01
		LLI-131	<5.59E-01	0.00E+00	5.59E-01
		I-131	<6.04E+00	0.00E+00	6.04E+00
		Cs-134	<5.23E+00	0.00E+00	5.23E+00
		Cs-137	<6.42E+00	0.00E+00	6.42E+00
		BaLa-140	<5.40E+00	0.00E+00	5.40E+00
		Be-7	<4.54E+01	0.00E+00	4.54E+01
		K-40	1.55E+03	7.73E+01	3.62E+01

Sample ID:	Sample Dates:	Nuclide	Activity	1 Sigma Error	LLD
228144	1/30/2012 - 1/30/2012	Be-7	<4.95E+00	0.00E+00	4.95E+00
		K-40	2.02E+01	4.99E+00	6.66E+00
		LLI-131	<5.98E-01	0.00E+00	5.98E-01
		I-131	<6.00E+00	0.00E+00	6.00E+00
		Cs-134	<6.41E+00	0.00E+00	6.41E+00
		Cs-137	<6.89E+00	0.00E+00	6.89E+00
		BaLa-140	<8.00E+00	0.00E+00	8.00E+00
		Be-7	<4.20E+01	0.00E+00	4.20E+01
		K-40	1.68E+03	8.24E+01	6.33E+01

Sample ID:	Sample Dates:	Nuclide	Activity	1 Sigma Error	LLD
230080	2/13/2012 - 2/13/2012	Be-7	<5.49E+00	0.00E+00	5.49E+00
		K-40	2.56E+01	4.59E+00	8.86E+00
		LLI-131	<6.49E-01	0.00E+00	6.49E-01
		I-131	<5.11E+00	0.00E+00	5.11E+00
		Cs-134	<5.25E+00	0.00E+00	5.25E+00
		Cs-137	<6.78E+00	0.00E+00	6.78E+00



# MCGUIRE Radiological Environmental Monitoring Analysis Report - 2012 (Appendix E)

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

Sample Point 141 [ CONTROL - WNW @ 14.8 miles ]

Sample ID:	Sample Dates:	Nuclide	Activity	1 Sigma Error	LLD
230080	2/13/2012 - 2/13/2012	BaLa-140	<5.96E+00	0.00E+00	5.96E+00
		Be-7	<4.11E+01	0.00E+00	4.11E+01
		K-40	1.67E+03	8.19E+01	4.88E+01
230964	2/27/2012 - 2/27/2012	Be-7	<4.33E+00	0.00E+00	4.33E+00
		K-40	2.03E+01	3.99E+00	5.80E+00
		LLI-131	<5.61E-01	0.00E+00	5.61E-01
		I-131	<5.24E+00	0.00E+00	5.24E+00
		Cs-134	<6.31E+00	0.00E+00	6.31E+00
		Cs-137	<6.17E+00	0.00E+00	6.17E+00
		BaLa-140	<8.42E+00	0.00E+00	8.42E+00
		Be-7	<4.27E+01	0.00E+00	4.27E+01
		K-40	1.54E+03	8.37E+01	5.58E+01
232488	3/12/2012 - 3/12/2012	Be-7	<4.23E+00	0.00E+00	4.23E+00
		K-40	1.58E+01	3.65E+00	1.29E+00
		LLI-131	<5.96E-01	0.00E+00	5.96E-01
		I-131	<6.94E+00	0.00E+00	6.94E+00
		Cs-134	<7.25E+00	0.00E+00	7.25E+00
		Cs-137	<5.11E+00	0.00E+00	5.11E+00
		BaLa-140	<2.42E+00	0.00E+00	2.42E+00
		Be-7	<6.30E+01	0.00E+00	6.30E+01
		K-40	1.42E+03	1.16E+02	8.93E+01
233569	3/26/2012 - 3/26/2012	Be-7	<4.96E+00	0.00E+00	4.96E+00
		K-40	1.54E+01	5.42E+00	1.02E+01
		LLI-131	<5.59E-01	0.00E+00	5.59E-01
		I-131	<5.91E+00	0.00E+00	5.91E+00
		Cs-134	<5.89E+00	0.00E+00	5.89E+00
		Cs-137	<5.70E+00	0.00E+00	5.70E+00
		BaLa-140	<6.02E+00	0.00E+00	6.02E+00
		Be-7	<4.35E+01	0.00E+00	4.35E+01
		K-40	1.53E+03	7.79E+01	3.56E+01
234918	4/9/2012 - 4/9/2012	Be-7	<5.30E+00	0.00E+00	5.30E+00
		K-40	3.23E+01	5.57E+00	9.70E+00
		LLI-131	<5.87E-01	0.00E+00	5.87E-01
		I-131	<8.33E+00	0.00E+00	8.33E+00
		Cs-134	<5.72E+00	0.00E+00	5.72E+00
		Cs-137	<9.90E+00	0.00E+00	9.90E+00
		BaLa-140	<1.06E+01	0.00E+00	1.06E+01
		Be-7	<5.49E+01	0.00E+00	5.49E+01
		K-40	1.29E+03	1.08E+02	9.37E+01
235431	4/23/2012 - 4/23/2012	Be-7	<4.81E+00	0.00E+00	4.81E+00
		K-40	3.17E+01	5.19E+00	7.69E+00
		LLI-131	<6.23E-01	0.00E+00	6.23E-01
		I-131	<8.15E+00	0.00E+00	8.15E+00
		Cs-134	<7.07E+00	0.00E+00	7.07E+00
		Cs-137	<1.05E+01	0.00E+00	1.05E+01
		BaLa-140	<8.96E+00	0.00E+00	8.96E+00
		Be-7	<6.43E+01	0.00E+00	6.43E+01
		K-40	1.21E+03	9.87E+01	8.02E+01
236006	5/7/2012 - 5/7/2012	Be-7	<4.35E+00	0.00E+00	4.35E+00
		K-40	3.47E+01	4.88E+00	8.54E+00
		LLI-131	<6.08E-01	0.00E+00	6.08E-01
		I-131	<6.41E+00	0.00E+00	6.41E+00
		Cs-134	<5.30E+00	0.00E+00	5.30E+00
		Cs-137	<6.29E+00	0.00E+00	6.29E+00
		BaLa-140	<7.01E+00	0.00E+00	7.01E+00
		Be-7	<4.90E+01	0.00E+00	4.90E+01
		K-40	1.76E+03	8.73E+01	5.26E+01



# MCGUIRE Radiological Environmental Monitoring Analysis Report - 2012 (Appendix E)

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

Sample Point 141 [ CONTROL - WNW @ 14.8 miles ]

Sample ID:	Sample Dates:	Nuclide	Activity	1 Sigma Error	LLD
236529	5/21/2012 - 5/21/2012	Be-7	<4.48E+00	0.00E+00	4.48E+00
		K-40	2.71E+01	5.35E+00	6.87E+00
		LLI-131	<6.35E-01	0.00E+00	6.35E-01
		I-131	<6.48E+00	0.00E+00	6.48E+00
		Cs-134	<5.02E+00	0.00E+00	5.02E+00
		Cs-137	<6.18E+00	0.00E+00	6.18E+00
		BaLa-140	<5.52E+00	0.00E+00	5.52E+00
		Be-7	<4.70E+01	0.00E+00	4.70E+01
		K-40	1.56E+03	8.13E+01	5.21E+01
237154	6/4/2012 - 6/4/2012	Be-7	<4.63E+00	0.00E+00	4.63E+00
		K-40	2.47E+01	5.84E+00	5.24E+00
		LLI-131	<5.86E-01	0.00E+00	5.86E-01
		I-131	<4.97E+00	0.00E+00	4.97E+00
		Cs-134	<5.31E+00	0.00E+00	5.31E+00
		Cs-137	<5.06E+00	0.00E+00	5.06E+00
		BaLa-140	<5.71E+00	0.00E+00	5.71E+00
		Be-7	<4.65E+01	0.00E+00	4.65E+01
		K-40	1.73E+03	9.23E+01	5.46E+01
238005	6/18/2012 - 6/18/2012	Be-7	<5.79E+00	0.00E+00	5.79E+00
		K-40	1.96E+01	4.34E+00	9.02E+00
		LLI-131	<6.34E-01	0.00E+00	6.34E-01
		I-131	<6.26E+00	0.00E+00	6.26E+00
		Cs-134	<5.20E+00	0.00E+00	5.20E+00
		Cs-137	<6.71E+00	0.00E+00	6.71E+00
		BaLa-140	<4.94E+00	0.00E+00	4.94E+00
		Be-7	<5.56E+01	0.00E+00	5.56E+01
		K-40	1.64E+03	8.32E+01	6.10E+01
239157	7/2/2012 - 7/2/2012	Be-7	<4.94E+00	0.00E+00	4.94E+00
		K-40	2.04E+01	4.36E+00	1.48E+00
		LLI-131	<6.20E-01	0.00E+00	6.20E-01
		I-131	<5.33E+00	0.00E+00	5.33E+00
		Cs-134	<4.62E+00	0.00E+00	4.62E+00
		Cs-137	<6.24E+00	0.00E+00	6.24E+00
		BaLa-140	<7.06E+00	0.00E+00	7.06E+00
		Be-7	<3.48E+01	0.00E+00	3.48E+01
		K-40	1.41E+03	7.82E+01	5.70E+01
240030	7/16/2012 - 7/16/2012	Be-7	<3.98E+00	0.00E+00	3.98E+00
		K-40	2.61E+01	4.83E+00	6.14E+00
		LLI-131	<6.48E-01	0.00E+00	6.48E-01
		I-131	<7.02E+00	0.00E+00	7.02E+00
		Cs-134	<7.38E+00	0.00E+00	7.38E+00
		Cs-137	<1.04E+01	0.00E+00	1.04E+01
		BaLa-140	<9.56E+00	0.00E+00	9.56E+00
		Be-7	<6.27E+01	0.00E+00	6.27E+01
		K-40	1.65E+03	1.14E+02	8.03E+01
240987	7/30/2012 - 7/30/2012	Be-7	<5.28E+00	0.00E+00	5.28E+00
		K-40	1.94E+01	4.03E+00	7.19E+00
		LLI-131	<6.40E-01	0.00E+00	6.40E-01
		I-131	<7.50E+00	0.00E+00	7.50E+00
		Cs-134	<9.60E+00	0.00E+00	9.60E+00
		Cs-137	<8.94E+00	0.00E+00	8.94E+00
		BaLa-140	<9.27E+00	0.00E+00	9.27E+00
		Be-7	<5.45E+01	0.00E+00	5.45E+01
		K-40	1.68E+03	1.18E+02	7.50E+01
241565	8/13/2012 - 8/13/2012	Be-7	<4.95E+00	0.00E+00	4.95E+00
		K-40	2.39E+01	5.71E+00	8.52E+00
		LLI-131	<6.45E-01	0.00E+00	6.45E-01



# MCGUIRE Radiological Environmental Monitoring Analysis Report - 2012 (Appendix E)

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

Sample Point 141 [ CONTROL - WNW @ 14.8 miles ]

Sample ID:	Sample Dates:	Nuclide	Activity	1 Sigma Error	LLD		
241565	8/13/2012 - 8/13/2012	I-131	<7.24E+00	0.00E+00	7.24E+00		
		Cs-134	<7.22E+00	0.00E+00	7.22E+00		
		Cs-137	<9.19E+00	0.00E+00	9.19E+00		
		BaLa-140	<7.35E+00	0.00E+00	7.35E+00		
		Be-7	<7.20E+01	0.00E+00	7.20E+01		
		K-40	1.66E+03	1.24E+02	1.10E+02		
242498	8/27/2012 - 8/27/2012	Be-7	<4.63E+00	0.00E+00	4.63E+00		
		K-40	3.07E+01	4.63E+00	7.96E+00		
		LLI-131	<6.23E-01	0.00E+00	6.23E-01		
		I-131	<4.88E+00	0.00E+00	4.88E+00		
		Cs-134	<4.31E+00	0.00E+00	4.31E+00		
		Cs-137	<6.68E+00	0.00E+00	6.68E+00		
		BaLa-140	<7.09E+00	0.00E+00	7.09E+00		
		Be-7	<4.37E+01	0.00E+00	4.37E+01		
		K-40	1.59E+03	8.24E+01	5.68E+01		
243768	9/10/2012 - 9/10/2012	Be-7	<3.92E+00	0.00E+00	3.92E+00		
		K-40	<1.67E+01	0.00E+00	1.67E+01		
		LLI-131	<6.13E-01	0.00E+00	6.13E-01		
		I-131	<7.64E+00	0.00E+00	7.64E+00		
		Cs-134	<8.26E+00	0.00E+00	8.26E+00		
		Cs-137	<1.10E+01	0.00E+00	1.10E+01		
		BaLa-140	<7.36E+00	0.00E+00	7.36E+00		
		Be-7	<6.05E+01	0.00E+00	6.05E+01		
		K-40	1.64E+03	1.20E+02	7.59E+01		
		245058	9/24/2012 - 9/24/2012	Be-7	<5.11E+00	0.00E+00	5.11E+00
				K-40	1.63E+01	3.33E+00	4.68E+00
LLI-131	<6.14E-01			0.00E+00	6.14E-01		
I-131	<7.70E+00			0.00E+00	7.70E+00		
Cs-134	<1.00E+01			0.00E+00	1.00E+01		
Cs-137	<8.42E+00			0.00E+00	8.42E+00		
BaLa-140	<6.84E+00			0.00E+00	6.84E+00		
Be-7	<5.22E+01			0.00E+00	5.22E+01		
K-40	1.33E+03			1.01E+02	7.05E+01		
246721	10/8/2012 - 10/8/2012			Be-7	<4.29E+00	0.00E+00	4.29E+00
				K-40	9.09E+00	2.74E+00	1.04E+01
		LLI-131	<6.49E-01	0.00E+00	6.49E-01		
		I-131	<7.61E+00	0.00E+00	7.61E+00		
		Cs-134	<8.43E+00	0.00E+00	8.43E+00		
		Cs-137	<9.11E+00	0.00E+00	9.11E+00		
		BaLa-140	<9.29E+00	0.00E+00	9.29E+00		
		Be-7	<5.55E+01	0.00E+00	5.55E+01		
		K-40	1.56E+03	1.17E+02	1.19E+02		
		247443	10/22/2012 - 10/22/2012	Be-7	<5.34E+00	0.00E+00	5.34E+00
				K-40	1.64E+01	3.91E+00	4.95E+00
LLI-131	<6.24E-01			0.00E+00	6.24E-01		
I-131	<4.55E+00			0.00E+00	4.55E+00		
Cs-134	<5.45E+00			0.00E+00	5.45E+00		
Cs-137	<6.19E+00			0.00E+00	6.19E+00		
BaLa-140	<4.12E+00			0.00E+00	4.12E+00		
Be-7	<4.17E+01			0.00E+00	4.17E+01		
K-40	1.65E+03			8.93E+01	5.23E+01		
247976	11/5/2012 - 11/5/2012			Be-7	<4.52E+00	0.00E+00	4.52E+00
				K-40	2.06E+01	3.70E+00	6.17E+00
		LLI-131	<5.96E-01	0.00E+00	5.96E-01		
		I-131	<8.67E+00	0.00E+00	8.67E+00		
		Cs-134	<8.25E+00	0.00E+00	8.25E+00		
		Cs-137	<8.14E+00	0.00E+00	8.14E+00		



# MCGUIRE Radiological Environmental Monitoring Analysis Report - 2012 (Appendix E)

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

Sample Point 141 [ CONTROL - WNW @ 14.8 miles ]

Sample ID:	Sample Dates:	Nuclide	Activity	1 Sigma Error	LLD
247976	11/5/2012 - 11/5/2012	BaLa-140	<7.66E+00	0.00E+00	7.66E+00
		Be-7	<7.69E+01	0.00E+00	7.69E+01
		K-40	1.33E+03	1.05E+02	8.85E+01

Sample ID:	Sample Dates:	Nuclide	Activity	1 Sigma Error	LLD
248672	11/19/2012 - 11/19/2012	Be-7	<6.64E+00	0.00E+00	6.64E+00
		K-40	<2.06E+01	0.00E+00	2.06E+01
		LLI-131	<6.29E-01	0.00E+00	6.29E-01
		I-131	<5.05E+00	0.00E+00	5.05E+00
		Cs-134	<5.12E+00	0.00E+00	5.12E+00
		Cs-137	<6.23E+00	0.00E+00	6.23E+00
		BaLa-140	<3.59E+00	0.00E+00	3.59E+00
		Be-7	<4.20E+01	0.00E+00	4.20E+01
K-40	1.42E+03	7.98E+01	6.98E+01		

Sample ID:	Sample Dates:	Nuclide	Activity	1 Sigma Error	LLD
249271	12/3/2012 - 12/3/2012	Be-7	<3.90E+00	0.00E+00	3.90E+00
		K-40	5.21E+01	3.79E+00	4.77E+00
		LLI-131	<5.62E-01	0.00E+00	5.62E-01
		I-131	<6.15E+00	0.00E+00	6.15E+00
		Cs-134	<6.22E+00	0.00E+00	6.22E+00
		Cs-137	<9.14E+00	0.00E+00	9.14E+00
		BaLa-140	<8.49E+00	0.00E+00	8.49E+00
		Be-7	<6.24E+01	0.00E+00	6.24E+01
K-40	1.35E+03	1.08E+02	1.16E+02		

Sample ID:	Sample Dates:	Nuclide	Activity	1 Sigma Error	LLD
249896	12/17/2012 - 12/17/2012	Be-7	<4.05E+00	0.00E+00	4.05E+00
		K-40	1.46E+01	2.67E+00	5.92E+00
		LLI-131	<4.74E-01	0.00E+00	4.74E-01
		I-131	<8.76E+00	0.00E+00	8.76E+00
		Cs-134	<9.35E+00	0.00E+00	9.35E+00
		Cs-137	<9.06E+00	0.00E+00	9.06E+00
		BaLa-140	<1.31E+01	0.00E+00	1.31E+01
		Be-7	<6.63E+01	0.00E+00	6.63E+01
K-40	1.52E+03	1.20E+02	8.74E+01		

Sample ID:	Sample Dates:	Nuclide	Activity	1 Sigma Error	LLD
250461	12/31/2012 - 12/31/2012	Be-7	<3.84E+00	0.00E+00	3.84E+00
		K-40	3.23E+01	3.95E+00	5.96E+00
		LLI-131	<6.09E-01	0.00E+00	6.09E-01
		I-131	<9.64E+00	0.00E+00	9.64E+00
		Cs-134	<7.88E+00	0.00E+00	7.88E+00
		Cs-137	<8.17E+00	0.00E+00	8.17E+00
		BaLa-140	<3.00E+00	0.00E+00	3.00E+00
		Be-7	<6.70E+01	0.00E+00	6.70E+01
K-40	1.46E+03	1.14E+02	1.04E+02		

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

Sample Point 129 [ INDICATOR - ENE @ 0.51 miles ]

Sample ID:	Sample Dates:	Nuclide	Activity	1 Sigma Error	LLD
233506	4/16/2012 - 4/16/2012	Mn-54	<1.01E+01	0.00E+00	1.01E+01
		Co-58	<8.36E+00	0.00E+00	8.36E+00
		Fe-59	<1.38E+01	0.00E+00	1.38E+01
		Co-60	<1.27E+01	0.00E+00	1.27E+01
		Zn-65	<1.66E+01	0.00E+00	1.66E+01
		Zr-95	<1.58E+01	0.00E+00	1.58E+01
		Nb-95	<8.93E+00	0.00E+00	8.93E+00
		I-131	<8.36E+00	0.00E+00	8.36E+00
		Cs-134	<1.01E+01	0.00E+00	1.01E+01
		Cs-137	<1.11E+01	0.00E+00	1.11E+01
		Be-7	1.82E+02	3.16E+01	6.04E+01
		K-40	1.29E+03	9.32E+01	7.09E+01
		Co-57	<7.95E+00	0.00E+00	7.95E+00
		Mo-99	<7.27E+01	0.00E+00	7.27E+01
		Ag-110M	<8.15E+00	0.00E+00	8.15E+00
		Sb-122	<1.34E+01	0.00E+00	1.34E+01



**MCGUIRE Radiological Environmental Monitoring Analysis Report - 2012 (Appendix E)**

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

**Sample Point 129 [ INDICATOR - ENE @ 0.51 miles ]**

Sample ID:	Sample Dates:	Nuclide	Activity	1 Sigma Error	LLD
233506	4/16/2012 - 4/16/2012	Sb-125	<3.06E+01	0.00E+00	3.06E+01
244934	10/1/2012 - 10/1/2012	Mn-54	<2.40E+01	0.00E+00	2.40E+01
		Co-58	<2.15E+01	0.00E+00	2.15E+01
		Fe-59	<5.24E+01	0.00E+00	5.24E+01
		Co-60	<2.90E+01	0.00E+00	2.90E+01
		Zn-65	<5.23E+01	0.00E+00	5.23E+01
		Zr-95	<4.01E+01	0.00E+00	4.01E+01
		Nb-95	<2.76E+01	0.00E+00	2.76E+01
		I-131	<2.53E+01	0.00E+00	2.53E+01
		Cs-134	<2.04E+01	0.00E+00	2.04E+01
		Cs-137	<2.22E+01	0.00E+00	2.22E+01
		Be-7	3.94E+02	1.07E+02	1.67E+02
		K-40	3.45E+03	2.80E+02	2.12E+02
		Co-57	<1.31E+01	0.00E+00	1.31E+01
		Mo-99	<3.49E+02	0.00E+00	3.49E+02
		Ag-110M	<1.95E+01	0.00E+00	1.95E+01
		Sb-122	<6.34E+01	0.00E+00	6.34E+01
		Sb-125	<5.94E+01	0.00E+00	5.94E+01

**Sample Point 130 [ INDICATOR - SW @ 0.52 miles ]**

Sample ID:	Sample Dates:	Nuclide	Activity	1 Sigma Error	LLD
233508	4/16/2012 - 4/16/2012	Mn-54	<2.25E+01	0.00E+00	2.25E+01
		Co-58	<1.64E+01	0.00E+00	1.64E+01
		Fe-59	<3.92E+01	0.00E+00	3.92E+01
		Co-60	<2.40E+01	0.00E+00	2.40E+01
		Zn-65	<4.42E+01	0.00E+00	4.42E+01
		Zr-95	<3.31E+01	0.00E+00	3.31E+01
		Nb-95	<2.00E+01	0.00E+00	2.00E+01
		I-131	<1.90E+01	0.00E+00	1.90E+01
		Cs-134	<1.63E+01	0.00E+00	1.63E+01
		Cs-137	9.26E+01	9.19E+00	1.94E+01
		Be-7	1.98E+02	8.36E+01	1.40E+02
		K-40	2.21E+04	3.62E+02	1.36E+02
		Co-57	<1.56E+01	0.00E+00	1.56E+01
		Mo-99	<1.85E+02	0.00E+00	1.85E+02
		Ag-110M	<1.80E+01	0.00E+00	1.80E+01
		Sb-122	<2.80E+01	0.00E+00	2.80E+01
		Sb-125	<4.84E+01	0.00E+00	4.84E+01
244936	10/1/2012 - 10/1/2012	Mn-54	<2.47E+01	0.00E+00	2.47E+01
		Co-58	<2.18E+01	0.00E+00	2.18E+01
		Fe-59	<4.47E+01	0.00E+00	4.47E+01
		Co-60	<2.66E+01	0.00E+00	2.66E+01
		Zn-65	<5.50E+01	0.00E+00	5.50E+01
		Zr-95	<3.75E+01	0.00E+00	3.75E+01
		Nb-95	<2.28E+01	0.00E+00	2.28E+01
		I-131	<2.33E+01	0.00E+00	2.33E+01
		Cs-134	<1.90E+01	0.00E+00	1.90E+01
		Cs-137	5.00E+01	1.30E+01	2.14E+01
		Be-7	<1.66E+02	0.00E+00	1.66E+02
		K-40	1.41E+04	3.63E+02	1.98E+02
		Co-57	<1.60E+01	0.00E+00	1.60E+01
		Mo-99	<3.51E+02	0.00E+00	3.51E+02
		Ag-110M	<2.04E+01	0.00E+00	2.04E+01
		Sb-122	<5.78E+01	0.00E+00	5.78E+01
		Sb-125	<5.11E+01	0.00E+00	5.11E+01

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

Sample ID:	Sample Dates:	Nuclide	Activity	1 Sigma Error	LLD
233507	4/16/2012 - 4/16/2012	Mn-54	<1.76E+01	0.00E+00	1.76E+01
		Co-58	<1.47E+01	0.00E+00	1.47E+01
		Fe-59	<3.90E+01	0.00E+00	3.90E+01
		Co-60	<2.12E+01	0.00E+00	2.12E+01
		Zn-65	<4.38E+01	0.00E+00	4.38E+01



**MCGUIRE Radiological Environmental Monitoring Analysis Report - 2012 (Appendix E)**

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

Sample Point 137 [ CONTROL - N @ 12 miles ]

Sample ID:	Sample Dates:	Nuclide	Activity	1 Sigma Error	LLD
233507	4/16/2012 - 4/16/2012	Zr-95	<2.54E+01	0.00E+00	2.54E+01
		Nb-95	<1.61E+01	0.00E+00	1.61E+01
		I-131	<1.27E+01	0.00E+00	1.27E+01
		Cs-134	<1.28E+01	0.00E+00	1.28E+01
		Cs-137	<1.46E+01	0.00E+00	1.46E+01
		Be-7	2.14E+02	4.76E+01	1.08E+02
		K-40	1.87E+04	3.59E+02	1.30E+02
		Co-57	<1.10E+01	0.00E+00	1.10E+01
		Mo-99	<1.49E+02	0.00E+00	1.49E+02
		Ag-110M	<1.43E+01	0.00E+00	1.43E+01
		Sb-122	<2.26E+01	0.00E+00	2.26E+01
		Sb-125	<3.60E+01	0.00E+00	3.60E+01

Sample ID:	Sample Dates:	Nuclide	Activity	1 Sigma Error	LLD
244935	10/1/2012 - 10/1/2012	Mn-54	<2.22E+01	0.00E+00	2.22E+01
		Co-58	<2.28E+01	0.00E+00	2.28E+01
		Fe-59	<5.92E+01	0.00E+00	5.92E+01
		Co-60	<2.90E+01	0.00E+00	2.90E+01
		Zn-65	<7.04E+01	0.00E+00	7.04E+01
		Zr-95	<3.55E+01	0.00E+00	3.55E+01
		Nb-95	<2.55E+01	0.00E+00	2.55E+01
		I-131	<1.87E+01	0.00E+00	1.87E+01
		Cs-134	<1.56E+01	0.00E+00	1.56E+01
		Cs-137	<2.18E+01	0.00E+00	2.18E+01
		Be-7	1.92E+02	8.03E+01	1.42E+02
		K-40	1.96E+04	5.14E+02	2.51E+02
		Co-57	<1.21E+01	0.00E+00	1.21E+01
		Mo-99	<3.66E+02	0.00E+00	3.66E+02
		Ag-110M	<2.15E+01	0.00E+00	2.15E+01
		Sb-122	<5.23E+01	0.00E+00	5.23E+01
		Sb-125	<4.80E+01	0.00E+00	4.80E+01

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

Sample Point 128 [ INDICATOR - NE @ 0.45 miles ]

Sample ID:	Sample Dates:	Nuclide	Activity	1 Sigma Error	LLD
227346	12/12/2011 - 1/9/2012	Mn-54	<5.01E+00	0.00E+00	5.01E+00
		Co-58	<5.86E+00	0.00E+00	5.86E+00
		Fe-59	<7.16E+00	0.00E+00	7.16E+00
		Co-60	<8.69E+00	0.00E+00	8.69E+00
		Zn-65	<9.98E+00	0.00E+00	9.98E+00
		Zr-95	<8.88E+00	0.00E+00	8.88E+00
		Nb-95	<4.38E+00	0.00E+00	4.38E+00
		I-131	<5.71E+00	0.00E+00	5.71E+00
		Cs-134	<5.34E+00	0.00E+00	5.34E+00
		Cs-137	<6.53E+00	0.00E+00	6.53E+00
		BaLa-140	<6.47E+00	0.00E+00	6.47E+00
		Be-7	<4.98E+01	0.00E+00	4.98E+01
		K-40	2.29E+02	3.53E+01	4.49E+01

Sample ID:	Sample Dates:	Nuclide	Activity	1 Sigma Error	LLD
229457	1/9/2012 - 2/6/2012	Mn-54	<8.43E+00	0.00E+00	8.43E+00
		Co-58	<6.11E+00	0.00E+00	6.11E+00
		Fe-59	<1.15E+01	0.00E+00	1.15E+01
		Co-60	<8.91E+00	0.00E+00	8.91E+00
		Zn-65	<1.37E+01	0.00E+00	1.37E+01
		Zr-95	<1.09E+01	0.00E+00	1.09E+01
		Nb-95	<7.97E+00	0.00E+00	7.97E+00
		I-131	<5.90E+00	0.00E+00	5.90E+00
		Cs-134	<5.67E+00	0.00E+00	5.67E+00
		Cs-137	<7.58E+00	0.00E+00	7.58E+00
		BaLa-140	<8.65E+00	0.00E+00	8.65E+00
		Be-7	<5.25E+01	0.00E+00	5.25E+01
		K-40	7.67E+01	3.09E+01	8.49E+01

Sample ID:	Sample Dates:	Nuclide	Activity	1 Sigma Error	LLD
231148	12/12/2011 - 3/5/2012	H3SW	7.49E+02	6.29E+01	1.67E+02





**MCGUIRE Radiological Environmental Monitoring Analysis Report - 2012 (Appendix E)**

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

Sample Point 128 [ INDICATOR - NE @ 0.45 miles ]

Sample ID:	Sample Dates:	Nuclide	Activity	1 Sigma Error	LLD
231677	2/6/2012 - 3/5/2012	Mn-54	<5.47E+00	0.00E+00	5.47E+00
		Co-58	<5.50E+00	0.00E+00	5.50E+00
		Fe-59	<1.08E+01	0.00E+00	1.08E+01
		Co-60	<7.30E+00	0.00E+00	7.30E+00
		Zn-65	<9.41E+00	0.00E+00	9.41E+00
		Zr-95	<9.32E+00	0.00E+00	9.32E+00
		Nb-95	<5.77E+00	0.00E+00	5.77E+00
		I-131	<4.47E+00	0.00E+00	4.47E+00
		Cs-134	<4.92E+00	0.00E+00	4.92E+00
		Cs-137	<5.60E+00	0.00E+00	5.60E+00
		BaLa-140	<6.50E+00	0.00E+00	6.50E+00
		Be-7	<4.56E+01	0.00E+00	4.56E+01
		K-40	1.13E+02	2.75E+01	5.01E+01

Sample ID:	Sample Dates:	Nuclide	Activity	1 Sigma Error	LLD
234535	3/5/2012 - 4/2/2012	Mn-54	<4.24E+00	0.00E+00	4.24E+00
		Co-58	<3.40E+00	0.00E+00	3.40E+00
		Fe-59	<9.78E+00	0.00E+00	9.78E+00
		Co-60	<6.05E+00	0.00E+00	6.05E+00
		Zn-65	<1.03E+01	0.00E+00	1.03E+01
		Zr-95	<8.86E+00	0.00E+00	8.86E+00
		Nb-95	<4.03E+00	0.00E+00	4.03E+00
		I-131	<4.77E+00	0.00E+00	4.77E+00
		Cs-134	<4.14E+00	0.00E+00	4.14E+00
		Cs-137	<5.42E+00	0.00E+00	5.42E+00
		BaLa-140	<4.82E+00	0.00E+00	4.82E+00
		Be-7	<4.11E+01	0.00E+00	4.11E+01
		K-40	2.19E+02	3.71E+01	5.64E+01

Sample ID:	Sample Dates:	Nuclide	Activity	1 Sigma Error	LLD
235763	4/2/2012 - 4/30/2012	Mn-54	<3.96E+00	0.00E+00	3.96E+00
		Co-58	<2.88E+00	0.00E+00	2.88E+00
		Fe-59	<5.34E+00	0.00E+00	5.34E+00
		Co-60	<2.85E+00	0.00E+00	2.85E+00
		Zn-65	<6.31E+00	0.00E+00	6.31E+00
		Zr-95	<5.40E+00	0.00E+00	5.40E+00
		Nb-95	<3.06E+00	0.00E+00	3.06E+00
		I-131	<3.57E+00	0.00E+00	3.57E+00
		Cs-134	<2.67E+00	0.00E+00	2.67E+00
		Cs-137	<3.37E+00	0.00E+00	3.37E+00
		BaLa-140	<4.17E+00	0.00E+00	4.17E+00
		Be-7	<2.36E+01	0.00E+00	2.36E+01
		K-40	6.39E+01	1.81E+01	3.43E+01

Sample ID:	Sample Dates:	Nuclide	Activity	1 Sigma Error	LLD
236831	4/30/2012 - 5/29/2012	Mn-54	<6.95E+00	0.00E+00	6.95E+00
		Co-58	<3.07E+00	0.00E+00	3.07E+00
		Fe-59	<9.87E+00	0.00E+00	9.87E+00
		Co-60	<8.60E+00	0.00E+00	8.60E+00
		Zn-65	<1.62E+01	0.00E+00	1.62E+01
		Zr-95	<9.97E+00	0.00E+00	9.97E+00
		Nb-95	<5.83E+00	0.00E+00	5.83E+00
		I-131	<6.24E+00	0.00E+00	6.24E+00
		Cs-134	<6.49E+00	0.00E+00	6.49E+00
		Cs-137	<8.72E+00	0.00E+00	8.72E+00
		BaLa-140	<1.05E+01	0.00E+00	1.05E+01
		Be-7	<4.23E+01	0.00E+00	4.23E+01
		K-40	<9.03E+01	0.00E+00	9.03E+01

Sample ID:	Sample Dates:	Nuclide	Activity	1 Sigma Error	LLD
236888	3/5/2012 - 5/29/2012	H3SW	8.24E+02	6.60E+01	1.74E+02

Sample ID:	Sample Dates:	Nuclide	Activity	1 Sigma Error	LLD
238760	5/29/2012 - 6/25/2012	Mn-54	<4.54E+00	0.00E+00	4.54E+00
		Co-58	<3.72E+00	0.00E+00	3.72E+00
		Fe-59	<7.52E+00	0.00E+00	7.52E+00
		Co-60	<6.51E+00	0.00E+00	6.51E+00
		Zn-65	<6.33E+00	0.00E+00	6.33E+00
		Zr-95	<8.77E+00	0.00E+00	8.77E+00



**MCGUIRE Radiological Environmental Monitoring Analysis Report - 2012 (Appendix E)**

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

Sample Point 128 [ INDICATOR - NE @ 0.45 miles ]

Sample ID:	238760	Sample Dates:	5/29/2012 - 6/25/2012	Nuclide	Activity	1 Sigma Error	LLD
				Nb-95	<4.23E+00	0.00E+00	4.23E+00
				I-131	<4.58E+00	0.00E+00	4.58E+00
				Cs-134	<3.90E+00	0.00E+00	3.90E+00
				Cs-137	<5.20E+00	0.00E+00	5.20E+00
				BaLa-140	<4.42E+00	0.00E+00	4.42E+00
				Be-7	<3.89E+01	0.00E+00	3.89E+01
				K-40	9.35E+01	2.28E+01	4.75E+01

Sample ID:	240367	Sample Dates:	6/25/2012 - 7/23/2012	Nuclide	Activity	1 Sigma Error	LLD
				Mn-54	<4.74E+00	0.00E+00	4.74E+00
				Co-58	<4.90E+00	0.00E+00	4.90E+00
				Fe-59	<1.49E+01	0.00E+00	1.49E+01
				Co-60	<1.22E+01	0.00E+00	1.22E+01
				Zn-65	<2.00E+01	0.00E+00	2.00E+01
				Zr-95	<9.43E+00	0.00E+00	9.43E+00
				Nb-95	<5.24E+00	0.00E+00	5.24E+00
				I-131	<5.48E+00	0.00E+00	5.48E+00
				Cs-134	<5.60E+00	0.00E+00	5.60E+00
				Cs-137	<6.09E+00	0.00E+00	6.09E+00
				BaLa-140	<9.65E+00	0.00E+00	9.65E+00
				Be-7	<4.84E+01	0.00E+00	4.84E+01
				K-40	<1.28E+02	0.00E+00	1.28E+02

Sample ID:	242157	Sample Dates:	7/23/2012 - 8/20/2012	Nuclide	Activity	1 Sigma Error	LLD
				Mn-54	<4.19E+00	0.00E+00	4.19E+00
				Co-58	<5.29E+00	0.00E+00	5.29E+00
				Fe-59	<1.02E+01	0.00E+00	1.02E+01
				Co-60	<8.42E+00	0.00E+00	8.42E+00
				Zn-65	<9.19E+00	0.00E+00	9.19E+00
				Zr-95	<7.67E+00	0.00E+00	7.67E+00
				Nb-95	<5.46E+00	0.00E+00	5.46E+00
				I-131	<5.56E+00	0.00E+00	5.56E+00
				Cs-134	<4.72E+00	0.00E+00	4.72E+00
				Cs-137	<6.20E+00	0.00E+00	6.20E+00
				BaLa-140	<7.42E+00	0.00E+00	7.42E+00
				Be-7	<4.46E+01	0.00E+00	4.46E+01
				K-40	<1.05E+02	0.00E+00	1.05E+02

Sample ID:	242486	Sample Dates:	5/29/2012 - 8/20/2012	Nuclide	Activity	1 Sigma Error	LLD
				H3SW	1.07E+03	6.98E+01	1.74E+02

Sample ID:	244176	Sample Dates:	8/20/2012 - 9/17/2012	Nuclide	Activity	1 Sigma Error	LLD
				Mn-54	<7.95E+00	0.00E+00	7.95E+00
				Co-58	<4.85E+00	0.00E+00	4.85E+00
				Fe-59	<1.09E+01	0.00E+00	1.09E+01
				Co-60	<8.42E+00	0.00E+00	8.42E+00
				Zn-65	<1.41E+01	0.00E+00	1.41E+01
				Zr-95	<1.03E+01	0.00E+00	1.03E+01
				Nb-95	<7.83E+00	0.00E+00	7.83E+00
				I-131	<6.26E+00	0.00E+00	6.26E+00
				Cs-134	<7.50E+00	0.00E+00	7.50E+00
				Cs-137	<8.10E+00	0.00E+00	8.10E+00
				BaLa-140	<1.15E+01	0.00E+00	1.15E+01
				Be-7	<4.22E+01	0.00E+00	4.22E+01
				K-40	<1.07E+02	0.00E+00	1.07E+02

Sample ID:	247131	Sample Dates:	9/17/2012 - 10/15/2012	Nuclide	Activity	1 Sigma Error	LLD
				Mn-54	<3.54E+00	0.00E+00	3.54E+00
				Co-58	<3.80E+00	0.00E+00	3.80E+00
				Fe-59	<6.20E+00	0.00E+00	6.20E+00
				Co-60	<5.18E+00	0.00E+00	5.18E+00
				Zn-65	<7.77E+00	0.00E+00	7.77E+00
				Zr-95	<6.90E+00	0.00E+00	6.90E+00
				Nb-95	<3.96E+00	0.00E+00	3.96E+00
				I-131	<4.06E+00	0.00E+00	4.06E+00
				Cs-134	<3.01E+00	0.00E+00	3.01E+00
				Cs-137	<4.00E+00	0.00E+00	4.00E+00
				BaLa-140	<4.02E+00	0.00E+00	4.02E+00
				Be-7	<2.94E+01	0.00E+00	2.94E+01



**MCGUIRE Radiological Environmental Monitoring Analysis Report - 2012 (Appendix E)**

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

Sample Point 128 [ INDICATOR - NE @ 0.45 miles ]

Sample ID:	Sample Dates:	Nuclide	Activity	1 Sigma Error	LLD
247131	9/17/2012 - 10/15/2012	K-40	1.64E+02	2.64E+01	4.18E+01
248383	10/15/2012 - 11/12/2012	Mn-54	<6.33E+00	0.00E+00	6.33E+00
		Co-58	<6.69E+00	0.00E+00	6.69E+00
		Fe-59	<1.44E+01	0.00E+00	1.44E+01
		Co-60	<9.31E+00	0.00E+00	9.31E+00
		Zn-65	<1.70E+01	0.00E+00	1.70E+01
		Zr-95	<1.29E+01	0.00E+00	1.29E+01
		Nb-95	<7.02E+00	0.00E+00	7.02E+00
		I-131	<7.29E+00	0.00E+00	7.29E+00
		Cs-134	<5.48E+00	0.00E+00	5.48E+00
		Cs-137	<8.04E+00	0.00E+00	8.04E+00
		BaLa-140	<8.94E+00	0.00E+00	8.94E+00
		Be-7	<4.86E+01	0.00E+00	4.86E+01
		K-40	<1.42E+02	0.00E+00	1.42E+02
249028	8/20/2012 - 12/10/2012	H3SW	9.80E+02	6.81E+01	1.75E+02
249472	11/12/2012 - 12/10/2012	Mn-54	<8.12E+00	0.00E+00	8.12E+00
		Co-58	<5.15E+00	0.00E+00	5.15E+00
		Fe-59	<1.42E+01	0.00E+00	1.42E+01
		Co-60	<8.93E+00	0.00E+00	8.93E+00
		Zn-65	<1.64E+01	0.00E+00	1.64E+01
		Zr-95	<1.33E+01	0.00E+00	1.33E+01
		Nb-95	<9.04E+00	0.00E+00	9.04E+00
		I-131	<5.29E+00	0.00E+00	5.29E+00
		Cs-134	<6.59E+00	0.00E+00	6.59E+00
		Cs-137	<8.54E+00	0.00E+00	8.54E+00
		BaLa-140	<1.32E+01	0.00E+00	1.32E+01
		Be-7	<6.58E+01	0.00E+00	6.58E+01
		K-40	<1.16E+02	0.00E+00	1.16E+02

Sample Point 131 [ INDICATOR - WNW @ 0.64 miles ]

Sample ID:	Sample Dates:	Nuclide	Activity	1 Sigma Error	LLD
227347	12/12/2011 - 1/9/2012	Mn-54	<5.07E+00	0.00E+00	5.07E+00
		Co-58	<5.70E+00	0.00E+00	5.70E+00
		Fe-59	<8.02E+00	0.00E+00	8.02E+00
		Co-60	<7.56E+00	0.00E+00	7.56E+00
		Zn-65	<9.75E+00	0.00E+00	9.75E+00
		Zr-95	<9.16E+00	0.00E+00	9.16E+00
		Nb-95	<5.65E+00	0.00E+00	5.65E+00
		I-131	<5.05E+00	0.00E+00	5.05E+00
		Cs-134	<3.32E+00	0.00E+00	3.32E+00
		Cs-137	<5.56E+00	0.00E+00	5.56E+00
		BaLa-140	<6.07E+00	0.00E+00	6.07E+00
		Be-7	<3.53E+01	0.00E+00	3.53E+01
		K-40	1.13E+02	3.18E+01	5.93E+01
229458	1/9/2012 - 2/6/2012	Mn-54	<5.62E+00	0.00E+00	5.62E+00
		Co-58	<5.57E+00	0.00E+00	5.57E+00
		Fe-59	<9.44E+00	0.00E+00	9.44E+00
		Co-60	<6.05E+00	0.00E+00	6.05E+00
		Zn-65	<9.59E+00	0.00E+00	9.59E+00
		Zr-95	<7.73E+00	0.00E+00	7.73E+00
		Nb-95	<5.14E+00	0.00E+00	5.14E+00
		I-131	<5.12E+00	0.00E+00	5.12E+00
		Cs-134	<4.57E+00	0.00E+00	4.57E+00
		Cs-137	<6.00E+00	0.00E+00	6.00E+00
		BaLa-140	<3.22E+00	0.00E+00	3.22E+00
		Be-7	<2.92E+01	0.00E+00	2.92E+01
		K-40	4.94E+01	1.80E+01	6.12E+01
231149	12/12/2011 - 3/5/2012	H3SW	5.42E+02	6.00E+01	1.68E+02

**MCGUIRE Radiological Environmental Monitoring Analysis Report - 2012 (Appendix E)**

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

Sample Point 131 [ INDICATOR - WNW @ 0.64 miles ]

Sample ID:	Sample Dates:	Nuclide	Activity	1 Sigma Error	LLD
231678	2/6/2012 - 3/5/2012	Mn-54	<3.75E+00	0.00E+00	3.75E+00
		Co-58	<3.18E+00	0.00E+00	3.18E+00
		Fe-59	<8.52E+00	0.00E+00	8.52E+00
		Co-60	<5.89E+00	0.00E+00	5.89E+00
		Zn-65	<9.98E+00	0.00E+00	9.98E+00
		Zr-95	<9.66E+00	0.00E+00	9.66E+00
		Nb-95	<4.94E+00	0.00E+00	4.94E+00
		I-131	<4.74E+00	0.00E+00	4.74E+00
		Cs-134	<3.74E+00	0.00E+00	3.74E+00
		Cs-137	<4.65E+00	0.00E+00	4.65E+00
		BaLa-140	<3.72E+00	0.00E+00	3.72E+00
		Be-7	<3.26E+01	0.00E+00	3.26E+01
		K-40	9.64E+01	2.43E+01	2.84E+01
		234536	3/5/2012 - 4/2/2012	Mn-54	<4.94E+00
Co-58	<3.64E+00			0.00E+00	3.64E+00
Fe-59	<1.06E+01			0.00E+00	1.06E+01
Co-60	<5.28E+00			0.00E+00	5.28E+00
Zn-65	<1.25E+01			0.00E+00	1.25E+01
Zr-95	<7.90E+00			0.00E+00	7.90E+00
Nb-95	<4.08E+00			0.00E+00	4.08E+00
I-131	<5.93E+00			0.00E+00	5.93E+00
Cs-134	<3.65E+00			0.00E+00	3.65E+00
Cs-137	<5.20E+00			0.00E+00	5.20E+00
BaLa-140	<5.69E+00			0.00E+00	5.69E+00
Be-7	<3.71E+01			0.00E+00	3.71E+01
K-40	1.87E+02			3.06E+01	3.40E+01
235764	4/2/2012 - 4/30/2012			Mn-54	<4.55E+00
		Co-58	<6.51E+00	0.00E+00	6.51E+00
		Fe-59	<1.49E+01	0.00E+00	1.49E+01
		Co-60	<9.60E+00	0.00E+00	9.60E+00
		Zn-65	<1.24E+01	0.00E+00	1.24E+01
		Zr-95	<1.42E+01	0.00E+00	1.42E+01
		Nb-95	<4.30E+00	0.00E+00	4.30E+00
		I-131	<7.44E+00	0.00E+00	7.44E+00
		Cs-134	<4.50E+00	0.00E+00	4.50E+00
		Cs-137	<7.59E+00	0.00E+00	7.59E+00
		BaLa-140	<1.15E+01	0.00E+00	1.15E+01
		Be-7	<4.23E+01	0.00E+00	4.23E+01
		K-40	<1.21E+02	0.00E+00	1.21E+02
		236832	4/30/2012 - 5/29/2012	Mn-54	<6.95E+00
Co-58	<6.68E+00			0.00E+00	6.68E+00
Fe-59	<1.54E+01			0.00E+00	1.54E+01
Co-60	<1.25E+01			0.00E+00	1.25E+01
Zn-65	<1.90E+01			0.00E+00	1.90E+01
Zr-95	<1.33E+01			0.00E+00	1.33E+01
Nb-95	<8.12E+00			0.00E+00	8.12E+00
I-131	<5.66E+00			0.00E+00	5.66E+00
Cs-134	<7.40E+00			0.00E+00	7.40E+00
Cs-137	<7.71E+00			0.00E+00	7.71E+00
BaLa-140	<2.54E+00			0.00E+00	2.54E+00
Be-7	<4.75E+01			0.00E+00	4.75E+01
K-40	<1.23E+02			0.00E+00	1.23E+02
236889	3/5/2012 - 5/29/2012			H3SW	5.57E+02
238761	5/29/2012 - 6/25/2012	Mn-54	<3.31E+00	0.00E+00	3.31E+00
		Co-58	<3.21E+00	0.00E+00	3.21E+00
		Fe-59	<7.90E+00	0.00E+00	7.90E+00
		Co-60	<4.67E+00	0.00E+00	4.67E+00
		Zn-65	<5.96E+00	0.00E+00	5.96E+00
		Zr-95	<5.57E+00	0.00E+00	5.57E+00



# MCGUIRE Radiological Environmental Monitoring Analysis Report - 2012 (Appendix E)

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

Sample Point 131 [ INDICATOR - WNW @ 0.64 miles ]

Sample ID:	Sample Dates:	Nuclide	Activity	1 Sigma Error	LLD		
238761	5/29/2012 - 6/25/2012	Nb-95	<3.30E+00	0.00E+00	3.30E+00		
		I-131	<3.58E+00	0.00E+00	3.58E+00		
		Cs-134	<3.24E+00	0.00E+00	3.24E+00		
		Cs-137	<4.43E+00	0.00E+00	4.43E+00		
		BaLa-140	<4.87E+00	0.00E+00	4.87E+00		
		Be-7	<2.74E+01	0.00E+00	2.74E+01		
		K-40	1.20E+02	2.38E+01	2.98E+01		
240368	6/28/2012 - 7/23/2012	Mn-54	<5.04E+00	0.00E+00	5.04E+00		
		Co-58	<6.35E+00	0.00E+00	6.35E+00		
		Fe-59	<1.50E+01	0.00E+00	1.50E+01		
		Co-60	<1.10E+01	0.00E+00	1.10E+01		
		Zn-65	<1.52E+01	0.00E+00	1.52E+01		
		Zr-95	<1.16E+01	0.00E+00	1.16E+01		
		Nb-95	<7.24E+00	0.00E+00	7.24E+00		
		I-131	<7.03E+00	0.00E+00	7.03E+00		
		Cs-134	<6.36E+00	0.00E+00	6.36E+00		
		Cs-137	<7.46E+00	0.00E+00	7.46E+00		
		BaLa-140	<1.12E+01	0.00E+00	1.12E+01		
		Be-7	<3.77E+01	0.00E+00	3.77E+01		
		K-40	<1.14E+02	0.00E+00	1.14E+02		
242158	7/23/2012 - 8/20/2012	Mn-54	<4.95E+00	0.00E+00	4.95E+00		
		Co-58	<5.51E+00	0.00E+00	5.51E+00		
		Fe-59	<1.78E+01	0.00E+00	1.78E+01		
		Co-60	<9.42E+00	0.00E+00	9.42E+00		
		Zn-65	<1.54E+01	0.00E+00	1.54E+01		
		Zr-95	<8.05E+00	0.00E+00	8.05E+00		
		Nb-95	<7.78E+00	0.00E+00	7.78E+00		
		I-131	<5.75E+00	0.00E+00	5.75E+00		
		Cs-134	<6.16E+00	0.00E+00	6.16E+00		
		Cs-137	<7.50E+00	0.00E+00	7.50E+00		
		BaLa-140	<8.17E+00	0.00E+00	8.17E+00		
		Be-7	<5.31E+01	0.00E+00	5.31E+01		
		K-40	1.06E+02	2.82E+01	2.04E+01		
242487	5/29/2012 - 8/20/2012	H3SW	3.15E+02	5.84E+01	1.74E+02		
244177	8/20/2012 - 9/17/2012	Mn-54	<8.07E+00	0.00E+00	8.07E+00		
		Co-58	<5.64E+00	0.00E+00	5.64E+00		
		Fe-59	<1.40E+01	0.00E+00	1.40E+01		
		Co-60	<1.00E+01	0.00E+00	1.00E+01		
		Zn-65	<1.42E+01	0.00E+00	1.42E+01		
		Zr-95	<9.02E+00	0.00E+00	9.02E+00		
		Nb-95	<5.05E+00	0.00E+00	5.05E+00		
		I-131	<6.56E+00	0.00E+00	6.56E+00		
		Cs-134	<6.84E+00	0.00E+00	6.84E+00		
		Cs-137	<7.73E+00	0.00E+00	7.73E+00		
		BaLa-140	<3.48E+00	0.00E+00	3.48E+00		
		Be-7	<5.81E+01	0.00E+00	5.81E+01		
		K-40	<1.20E+02	0.00E+00	1.20E+02		
247132	9/17/2012 - 10/15/2012	Mn-54	<4.66E+00	0.00E+00	4.66E+00		
		Co-58	<5.41E+00	0.00E+00	5.41E+00		
		Fe-59	<1.00E+01	0.00E+00	1.00E+01		
		Co-60	<7.07E+00	0.00E+00	7.07E+00		
		Zn-65	<1.03E+01	0.00E+00	1.03E+01		
		Zr-95	<6.04E+00	0.00E+00	6.04E+00		
		Nb-95	<4.85E+00	0.00E+00	4.85E+00		
		I-131	<5.68E+00	0.00E+00	5.68E+00		
		Cs-134	<4.59E+00	0.00E+00	4.59E+00		
		Cs-137	<6.42E+00	0.00E+00	6.42E+00		
		BaLa-140	<6.13E+00	0.00E+00	6.13E+00		
		Be-7	<4.21E+01	0.00E+00	4.21E+01		



# MCGUIRE Radiological Environmental Monitoring Analysis Report - 2012 (Appendix E)

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

Sample Point 131 [ INDICATOR - WNW @ 0.64 miles ]

Sample ID:	Sample Dates:	Nuclide	Activity	1 Sigma Error	LLD
247132	9/17/2012 - 10/15/2012	K-40	<1.01E+02	0.00E+00	1.01E+02
248384	10/15/2012 - 11/12/2012	Mn-54	<7.42E+00	0.00E+00	7.42E+00
		Co-58	<7.48E+00	0.00E+00	7.48E+00
		Fe-59	<9.61E+00	0.00E+00	9.61E+00
		Co-60	<5.50E+00	0.00E+00	5.50E+00
		Zn-65	<1.19E+01	0.00E+00	1.19E+01
		Zr-95	<1.30E+01	0.00E+00	1.30E+01
		Nb-95	<7.07E+00	0.00E+00	7.07E+00
		I-131	<6.46E+00	0.00E+00	6.46E+00
		Cs-134	<5.32E+00	0.00E+00	5.32E+00
		Cs-137	<8.02E+00	0.00E+00	8.02E+00
		BaLa-140	<9.48E+00	0.00E+00	9.48E+00
		Be-7	<5.41E+01	0.00E+00	5.41E+01
		K-40	<1.34E+02	0.00E+00	1.34E+02
249029	8/20/2012 - 12/10/2012	H3SW	6.22E+02	6.30E+01	1.75E+02
249473	11/12/2012 - 12/10/2012	Mn-54	<8.32E+00	0.00E+00	8.32E+00
		Co-58	<6.67E+00	0.00E+00	6.67E+00
		Fe-59	<1.23E+01	0.00E+00	1.23E+01
		Co-60	<1.07E+01	0.00E+00	1.07E+01
		Zn-65	<9.44E+00	0.00E+00	9.44E+00
		Zr-95	<1.03E+01	0.00E+00	1.03E+01
		Nb-95	<7.52E+00	0.00E+00	7.52E+00
		I-131	<6.54E+00	0.00E+00	6.54E+00
		Cs-134	<7.54E+00	0.00E+00	7.54E+00
		Cs-137	<8.19E+00	0.00E+00	8.19E+00
		BaLa-140	<9.71E+00	0.00E+00	9.71E+00
		Be-7	<5.24E+01	0.00E+00	5.24E+01
		K-40	<1.68E+02	0.00E+00	1.68E+02

## Sample Point 135 [ CONTROL - N @ 11.9 miles ]

Sample ID:	Sample Dates:	Nuclide	Activity	1 Sigma Error	LLD
227348	12/12/2011 - 1/9/2012	Mn-54	<8.71E+00	0.00E+00	8.71E+00
		Co-58	<7.36E+00	0.00E+00	7.36E+00
		Fe-59	<1.31E+01	0.00E+00	1.31E+01
		Co-60	<1.16E+01	0.00E+00	1.16E+01
		Zn-65	<9.21E+00	0.00E+00	9.21E+00
		Zr-95	<1.22E+01	0.00E+00	1.22E+01
		Nb-95	<6.09E+00	0.00E+00	6.09E+00
		I-131	<5.90E+00	0.00E+00	5.90E+00
		Cs-134	<5.37E+00	0.00E+00	5.37E+00
		Cs-137	<7.68E+00	0.00E+00	7.68E+00
		BaLa-140	<8.60E+00	0.00E+00	8.60E+00
		Be-7	<4.84E+01	0.00E+00	4.84E+01
		K-40	<1.10E+02	0.00E+00	1.10E+02
229459	1/9/2012 - 2/6/2012	Mn-54	<6.12E+00	0.00E+00	6.12E+00
		Co-58	<5.16E+00	0.00E+00	5.16E+00
		Fe-59	<1.66E+01	0.00E+00	1.66E+01
		Co-60	<1.02E+01	0.00E+00	1.02E+01
		Zn-65	<1.35E+01	0.00E+00	1.35E+01
		Zr-95	<1.03E+01	0.00E+00	1.03E+01
		Nb-95	<8.42E+00	0.00E+00	8.42E+00
		I-131	<5.51E+00	0.00E+00	5.51E+00
		Cs-134	<5.86E+00	0.00E+00	5.86E+00
		Cs-137	<6.45E+00	0.00E+00	6.45E+00
		BaLa-140	<8.64E+00	0.00E+00	8.64E+00
		Be-7	<4.14E+01	0.00E+00	4.14E+01
		K-40	<1.26E+02	0.00E+00	1.26E+02
231150	12/12/2011 - 3/5/2012	H3SW	<3.61E+01	0.00E+00	1.69E+02



**MCGUIRE Radiological Environmental Monitoring Analysis Report - 2012 (Appendix E)**

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

Sample Point 135 [ CONTROL - N @ 11.9 miles ]

Sample ID:	Sample Dates:	Nuclide	Activity	1 Sigma Error	LLD
231679	2/6/2012 - 3/5/2012	Mn-54	<5.54E+00	0.00E+00	5.54E+00
		Co-58	<6.50E+00	0.00E+00	6.50E+00
		Fe-59	<1.17E+01	0.00E+00	1.17E+01
		Co-60	<1.37E+01	0.00E+00	1.37E+01
		Zn-65	<2.16E+01	0.00E+00	2.16E+01
		Zr-95	<1.24E+01	0.00E+00	1.24E+01
		Nb-95	<3.92E+00	0.00E+00	3.92E+00
		I-131	<6.76E+00	0.00E+00	6.76E+00
		Cs-134	<5.93E+00	0.00E+00	5.93E+00
		Cs-137	<6.71E+00	0.00E+00	6.71E+00
		BaLa-140	<7.60E+00	0.00E+00	7.60E+00
		Be-7	<5.42E+01	0.00E+00	5.42E+01
		K-40	<1.32E+02	0.00E+00	1.32E+02

Sample ID:	Sample Dates:	Nuclide	Activity	1 Sigma Error	LLD
234537	3/5/2012 - 4/2/2012	Mn-54	<5.81E+00	0.00E+00	5.81E+00
		Co-58	<6.62E+00	0.00E+00	6.62E+00
		Fe-59	<1.48E+01	0.00E+00	1.48E+01
		Co-60	<7.89E+00	0.00E+00	7.89E+00
		Zn-65	<1.28E+01	0.00E+00	1.28E+01
		Zr-95	<9.53E+00	0.00E+00	9.53E+00
		Nb-95	<6.10E+00	0.00E+00	6.10E+00
		I-131	<6.64E+00	0.00E+00	6.64E+00
		Cs-134	<5.68E+00	0.00E+00	5.68E+00
		Cs-137	<6.16E+00	0.00E+00	6.16E+00
		BaLa-140	<2.50E+00	0.00E+00	2.50E+00
		Be-7	<4.58E+01	0.00E+00	4.58E+01
		K-40	<9.66E+01	0.00E+00	9.66E+01

Sample ID:	Sample Dates:	Nuclide	Activity	1 Sigma Error	LLD
235765	4/2/2012 - 4/30/2012	Mn-54	<4.43E+00	0.00E+00	4.43E+00
		Co-58	<4.68E+00	0.00E+00	4.68E+00
		Fe-59	<1.06E+01	0.00E+00	1.06E+01
		Co-60	<5.78E+00	0.00E+00	5.78E+00
		Zn-65	<1.32E+01	0.00E+00	1.32E+01
		Zr-95	<8.22E+00	0.00E+00	8.22E+00
		Nb-95	<4.93E+00	0.00E+00	4.93E+00
		I-131	<4.24E+00	0.00E+00	4.24E+00
		Cs-134	<5.41E+00	0.00E+00	5.41E+00
		Cs-137	<4.38E+00	0.00E+00	4.38E+00
		BaLa-140	<6.84E+00	0.00E+00	6.84E+00
		Be-7	<4.26E+01	0.00E+00	4.26E+01
		K-40	<1.01E+02	0.00E+00	1.01E+02

Sample ID:	Sample Dates:	Nuclide	Activity	1 Sigma Error	LLD
236833	4/30/2012 - 5/29/2012	Mn-54	<6.75E+00	0.00E+00	6.75E+00
		Co-58	<6.62E+00	0.00E+00	6.62E+00
		Fe-59	<1.23E+01	0.00E+00	1.23E+01
		Co-60	<5.98E+00	0.00E+00	5.98E+00
		Zn-65	<1.49E+01	0.00E+00	1.49E+01
		Zr-95	<1.04E+01	0.00E+00	1.04E+01
		Nb-95	<6.38E+00	0.00E+00	6.38E+00
		I-131	<7.49E+00	0.00E+00	7.49E+00
		Cs-134	<6.28E+00	0.00E+00	6.28E+00
		Cs-137	<6.72E+00	0.00E+00	6.72E+00
		BaLa-140	<6.96E+00	0.00E+00	6.96E+00
		Be-7	<4.87E+01	0.00E+00	4.87E+01
		K-40	<9.03E+01	0.00E+00	9.03E+01

Sample ID:	Sample Dates:	Nuclide	Activity	1 Sigma Error	LLD
236890	3/5/2012 - 5/29/2012	H3SW	<1.17E+02	0.00E+00	1.73E+02

Sample ID:	Sample Dates:	Nuclide	Activity	1 Sigma Error	LLD
238762	5/29/2012 - 6/25/2012	Mn-54	<4.30E+00	0.00E+00	4.30E+00
		Co-58	<3.47E+00	0.00E+00	3.47E+00
		Fe-59	<9.17E+00	0.00E+00	9.17E+00
		Co-60	<7.28E+00	0.00E+00	7.28E+00
		Zn-65	<1.16E+01	0.00E+00	1.16E+01
		Zr-95	<7.14E+00	0.00E+00	7.14E+00



# MCGUIRE Radiological Environmental Monitoring Analysis Report - 2012 (Appendix E)

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

Sample Point 135 [ CONTROL - N @ 11.9 miles ]

Sample ID:	Sample Dates:	Nuclide	Activity	1 Sigma Error	LLD	
238762	5/29/2012 - 6/25/2012	Nb-95	<4.24E+00	0.00E+00	4.24E+00	
		I-131	<5.12E+00	0.00E+00	5.12E+00	
		Cs-134	<3.71E+00	0.00E+00	3.71E+00	
		Cs-137	<6.70E+00	0.00E+00	6.70E+00	
		BaLa-140	<6.27E+00	0.00E+00	6.27E+00	
		Be-7	<2.94E+01	0.00E+00	2.94E+01	
		K-40	<8.56E+01	0.00E+00	8.56E+01	
240369	6/25/2012 - 7/23/2012	Mn-54	<4.94E+00	0.00E+00	4.94E+00	
		Co-58	<4.04E+00	0.00E+00	4.04E+00	
		Fe-59	<9.38E+00	0.00E+00	9.38E+00	
		Co-60	<7.47E+00	0.00E+00	7.47E+00	
		Zn-65	<7.48E+00	0.00E+00	7.48E+00	
		Zr-95	<9.11E+00	0.00E+00	9.11E+00	
		Nb-95	<4.93E+00	0.00E+00	4.93E+00	
		I-131	<4.80E+00	0.00E+00	4.80E+00	
		Cs-134	<4.85E+00	0.00E+00	4.85E+00	
		Cs-137	<5.48E+00	0.00E+00	5.48E+00	
		BaLa-140	<5.22E+00	0.00E+00	5.22E+00	
		Be-7	<3.64E+01	0.00E+00	3.64E+01	
		K-40	9.21E+01	2.22E+01	4.52E+01	
242159	7/23/2012 - 8/20/2012	Mn-54	<5.74E+00	0.00E+00	5.74E+00	
		Co-58	<3.93E+00	0.00E+00	3.93E+00	
		Fe-59	<7.67E+00	0.00E+00	7.67E+00	
		Co-60	<6.83E+00	0.00E+00	6.83E+00	
		Zn-65	<1.02E+01	0.00E+00	1.02E+01	
		Zr-95	<9.64E+00	0.00E+00	9.64E+00	
		Nb-95	<4.68E+00	0.00E+00	4.68E+00	
		I-131	<5.70E+00	0.00E+00	5.70E+00	
		Cs-134	<5.50E+00	0.00E+00	5.50E+00	
		Cs-137	<5.28E+00	0.00E+00	5.28E+00	
		BaLa-140	<4.42E+00	0.00E+00	4.42E+00	
		Be-7	<3.59E+01	0.00E+00	3.59E+01	
		K-40	2.23E+02	2.93E+01	4.94E+01	
		242488	5/29/2012 - 8/20/2012	H3SW	<1.36E+02	0.00E+00
244178	8/20/2012 - 9/17/2012	Mn-54	<6.12E+00	0.00E+00	6.12E+00	
		Co-58	<7.08E+00	0.00E+00	7.08E+00	
		Fe-59	<1.31E+01	0.00E+00	1.31E+01	
		Co-60	<7.11E+00	0.00E+00	7.11E+00	
		Zn-65	<1.82E+01	0.00E+00	1.82E+01	
		Zr-95	<1.16E+01	0.00E+00	1.16E+01	
		Nb-95	<6.56E+00	0.00E+00	6.56E+00	
		I-131	<8.35E+00	0.00E+00	8.35E+00	
		Cs-134	<6.52E+00	0.00E+00	6.52E+00	
		Cs-137	<8.80E+00	0.00E+00	8.80E+00	
		BaLa-140	<7.15E+00	0.00E+00	7.15E+00	
		Be-7	<4.10E+01	0.00E+00	4.10E+01	
		K-40	<1.09E+02	0.00E+00	1.09E+02	
		247133	9/17/2012 - 10/15/2012	Mn-54	<3.15E+00	0.00E+00
Co-58	<6.90E+00			0.00E+00	6.90E+00	
Fe-59	<1.43E+01			0.00E+00	1.43E+01	
Co-60	<8.49E+00			0.00E+00	8.49E+00	
Zn-65	<1.28E+01			0.00E+00	1.28E+01	
Zr-95	<1.07E+01			0.00E+00	1.07E+01	
Nb-95	<6.44E+00			0.00E+00	6.44E+00	
I-131	<6.69E+00			0.00E+00	6.69E+00	
Cs-134	<6.15E+00			0.00E+00	6.15E+00	
Cs-137	<7.52E+00			0.00E+00	7.52E+00	
BaLa-140	<9.24E+00			0.00E+00	9.24E+00	
Be-7	<6.43E+01			0.00E+00	6.43E+01	





**MCGUIRE Radiological Environmental Monitoring Analysis Report - 2012 (Appendix E)**

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

Sample Point 135 [ CONTROL - N @ 11.9 miles ]

Sample ID:	Sample Dates:	Nuclide	Activity	1 Sigma Error	LLD
247133	9/17/2012 - 10/15/2012	K-40	<1.27E+02	0.00E+00	1.27E+02
248385	10/15/2012 - 11/12/2012	Mn-54	<6.38E+00	0.00E+00	6.38E+00
		Co-58	<5.79E+00	0.00E+00	5.79E+00
		Fe-59	<1.42E+01	0.00E+00	1.42E+01
		Co-60	<5.22E+00	0.00E+00	5.22E+00
		Zn-65	<1.63E+01	0.00E+00	1.63E+01
		Zr-95	<1.41E+01	0.00E+00	1.41E+01
		Nb-95	<6.59E+00	0.00E+00	6.59E+00
		I-131	<6.88E+00	0.00E+00	6.88E+00
		Cs-134	<6.74E+00	0.00E+00	6.74E+00
		Cs-137	<6.76E+00	0.00E+00	6.76E+00
		BaLa-140	<7.38E+00	0.00E+00	7.38E+00
		Be-7	<6.18E+01	0.00E+00	6.18E+01
		K-40	<1.13E+02	0.00E+00	1.13E+02
249030	8/20/2012 - 12/10/2012	H3SW	<4.92E+01	0.00E+00	1.75E+02
249474	11/12/2012 - 12/10/2012	Mn-54	<5.54E+00	0.00E+00	5.54E+00
		Co-58	<5.94E+00	0.00E+00	5.94E+00
		Fe-59	<1.11E+01	0.00E+00	1.11E+01
		Co-60	<8.04E+00	0.00E+00	8.04E+00
		Zn-65	<1.13E+01	0.00E+00	1.13E+01
		Zr-95	<1.12E+01	0.00E+00	1.12E+01
		Nb-95	<6.44E+00	0.00E+00	6.44E+00
		I-131	<7.30E+00	0.00E+00	7.30E+00
		Cs-134	<5.07E+00	0.00E+00	5.07E+00
		Cs-137	<7.76E+00	0.00E+00	7.76E+00
		BaLa-140	<9.14E+00	0.00E+00	9.14E+00
		Be-7	<6.48E+01	0.00E+00	6.48E+01
		K-40	<1.44E+02	0.00E+00	1.44E+02

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
232895	12/15/2011 - 3/15/2012	mR/Std Qtr	19.0
237581	3/15/2012 - 6/14/2012	mR/Std Qtr	16.0
243947	6/14/2012 - 9/13/2012	mR/Std Qtr	13.0
249602	9/13/2012 - 12/13/2012	mR/Std Qtr	18.0

Sample Point 144 [ INDICATOR - NNE @ 0.46 miles ]

TLD RING TLD\_INNER

Sample ID:	Sample Dates:	Nuclide	Activity
232896	12/15/2011 - 3/15/2012	mR/Std Qtr	16.0
237582	3/15/2012 - 6/14/2012	mR/Std Qtr	14.0
243948	6/14/2012 - 9/13/2012	mR/Std Qtr	13.0
249603	9/13/2012 - 12/13/2012	mR/Std Qtr	16.0

Sample Point 145 [ INDICATOR - NE @ 0.47 miles ]

TLD RING TLD\_INNER

Sample ID:	Sample Dates:	Nuclide	Activity
232897	12/15/2011 - 3/15/2012	mR/Std Qtr	16.0
237583	3/15/2012 - 6/14/2012	mR/Std Qtr	15.0



# MCGUIRE Radiological Environmental Monitoring Analysis Report - 2012 (Appendix E)

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

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

TLD RING TLD\_INNER

Sample ID:	Sample Dates:	Nuclide	Activity
243949	6/14/2012 - 9/13/2012	mR/Std Qtr	13.0
249604	9/13/2012 - 12/13/2012	mR/Std Qtr	16.0

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

TLD RING TLD\_INNER

Sample ID:	Sample Dates:	Nuclide	Activity
232898	12/15/2011 - 3/15/2012	mR/Std Qtr	16.0
237584	3/15/2012 - 6/14/2012	mR/Std Qtr	15.0
243950	6/14/2012 - 9/13/2012	mR/Std Qtr	13.00
249605	9/13/2012 - 12/13/2012	mR/Std Qtr	15.0

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

TLD RING TLD\_INNER

Sample ID:	Sample Dates:	Nuclide	Activity
232899	12/15/2011 - 3/15/2012	mR/Std Qtr	16.0
237585	3/15/2012 - 6/14/2012	mR/Std Qtr	15.0
243951	6/14/2012 - 9/13/2012	mR/Std Qtr	13.00
249606	9/13/2012 - 12/13/2012	mR/Std Qtr	16.0

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

TLD RING TLD\_INNER

Sample ID:	Sample Dates:	Nuclide	Activity
232900	12/15/2011 - 3/15/2012	mR/Std Qtr	14.0
237586	3/15/2012 - 6/14/2012	mR/Std Qtr	12.0
243952	6/14/2012 - 9/13/2012	mR/Std Qtr	11.0
249607	9/13/2012 - 12/13/2012	mR/Std Qtr	15.0

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

TLD RING TLD\_INNER

Sample ID:	Sample Dates:	Nuclide	Activity
232901	12/15/2011 - 3/15/2012	mR/Std Qtr	13.0
237587	3/15/2012 - 6/14/2012	mR/Std Qtr	12.0
243953	6/14/2012 - 9/13/2012	mR/Std Qtr	12.0
249608	9/13/2012 - 12/13/2012	mR/Std Qtr	14.0

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

TLD RING TLD\_INNER

Sample ID:	Sample Dates:	Nuclide	Activity
232902	12/15/2011 - 3/15/2012	mR/Std Qtr	16.0
237588	3/15/2012 - 6/14/2012	mR/Std Qtr	14.0
243954	6/14/2012 - 9/13/2012	mR/Std Qtr	14.0
249609	9/13/2012 - 12/13/2012	mR/Std Qtr	16.0



# MCGUIRE Radiological Environmental Monitoring Analysis Report - 2012 (Appendix E)

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

## Sample Point 152 [ INDICATOR - SSW @ 0.44 miles ]

TLD RING TLD\_INNER

Sample ID:	Sample Dates:	Nuclide	Activity
232903	12/15/2011 - 3/15/2012	mR/Std Qtr	17.0
237589	3/15/2012 - 6/14/2012	mR/Std Qtr	14.0
243955	6/14/2012 - 9/13/2012	mR/Std Qtr	13.0
249610	9/13/2012 - 12/13/2012	mR/Std Qtr	16.0

## Sample Point 153 [ INDICATOR - SW @ 0.47 miles ]

TLD RING TLD\_INNER

Sample ID:	Sample Dates:	Nuclide	Activity
232904	12/15/2011 - 3/15/2012	mR/Std Qtr	21.0
237590	3/15/2012 - 6/14/2012	mR/Std Qtr	18.0
243956	6/14/2012 - 9/13/2012	mR/Std Qtr	17.0
249611	9/13/2012 - 12/13/2012	mR/Std Qtr	22.0

## Sample Point 154 [ INDICATOR - W @ 0.45 miles ]

TLD RING TLD\_INNER

Sample ID:	Sample Dates:	Nuclide	Activity
232905	12/15/2011 - 3/15/2012	mR/Std Qtr	25.0
237591	3/15/2012 - 6/14/2012	mR/Std Qtr	21.0
243957	6/14/2012 - 9/13/2012	mR/Std Qtr	18.0
249612	9/13/2012 - 12/13/2012	mR/Std Qtr	22.0

## Sample Point 156 [ INDICATOR - WNW @ 0.44 miles ]

TLD RING TLD\_INNER

Sample ID:	Sample Dates:	Nuclide	Activity
232906	12/15/2011 - 3/15/2012	mR/Std Qtr	18.0
237592	3/15/2012 - 6/14/2012	mR/Std Qtr	15.0
243958	6/14/2012 - 9/13/2012	mR/Std Qtr	14.0
249613	9/13/2012 - 12/13/2012	mR/Std Qtr	18.0

## Sample Point 157 [ INDICATOR - N @ 4.69 miles ]

TLD RING TLD\_OUTER

Sample ID:	Sample Dates:	Nuclide	Activity
232907	12/15/2011 - 3/15/2012	mR/Std Qtr	18.0
237593	3/15/2012 - 6/14/2012	mR/Std Qtr	15.0
243959	6/14/2012 - 9/13/2012	mR/Std Qtr	13.0
249614	9/13/2012 - 12/13/2012	mR/Std Qtr	16.0

## Sample Point 158 [ INDICATOR - NNE @ 4.33 miles ]

TLD RING TLD\_OUTER

Sample ID:	Sample Dates:	Nuclide	Activity
232908	12/15/2011 - 3/15/2012	mR/Std Qtr	17.0
237594	3/15/2012 - 6/14/2012	mR/Std Qtr	15.0
243960	6/14/2012 - 9/13/2012	mR/Std Qtr	14.0



# MCGUIRE Radiological Environmental Monitoring Analysis Report - 2012 (Appendix E)

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

## Sample Point 158 [ INDICATOR - NNE @ 4.33 miles ]

TLD RING TLD\_OUTER

Sample ID:	Sample Dates:	Nuclide	Activity
249615	9/13/2012 - 12/13/2012	mR/Std Qtr	16.0

## Sample Point 159 [ INDICATOR - NE @ 4.73 miles ]

TLD RING TLD\_OUTER

Sample ID:	Sample Dates:	Nuclide	Activity
232909	12/15/2011 - 3/15/2012	mR/Std Qtr	25.0
237595	3/15/2012 - 6/14/2012	mR/Std Qtr	23.0
243961	6/14/2012 - 9/13/2012	mR/Std Qtr	19.0
249616	9/13/2012 - 12/13/2012	mR/Std Qtr	23.0

## Sample Point 160 [ INDICATOR - ENE @ 4.89 miles ]

TLD RING TLD\_OUTER

Sample ID:	Sample Dates:	Nuclide	Activity
232910	12/15/2011 - 3/15/2012	mR/Std Qtr	20.0
237596	3/15/2012 - 6/14/2012	mR/Std Qtr	19.0
243962	6/14/2012 - 9/13/2012	mR/Std Qtr	15.0
249617	9/13/2012 - 12/13/2012	mR/Std Qtr	18.0

## Sample Point 161 [ INDICATOR - E @ 4.7 miles ]

TLD RING TLD\_OUTER

Sample ID:	Sample Dates:	Nuclide	Activity
232911	12/15/2011 - 3/15/2012	mR/Std Qtr	17.0
237597	3/15/2012 - 6/14/2012	mR/Std Qtr	15.0
249618	9/13/2012 - 12/13/2012	mR/Std Qtr	19.0

## Sample Point 162 [ INDICATOR - ESE @ 4.53 miles ]

TLD RING TLD\_OUTER

Sample ID:	Sample Dates:	Nuclide	Activity
232912	12/15/2011 - 3/15/2012	mR/Std Qtr	14.0
237598	3/15/2012 - 6/14/2012	mR/Std Qtr	11.0
243964	6/14/2012 - 9/13/2012	mR/Std Qtr	10.0
249619	9/13/2012 - 12/13/2012	mR/Std Qtr	12.0

## Sample Point 163 [ INDICATOR - SE @ 4.94 miles ]

TLD RING TLD\_OUTER

Sample ID:	Sample Dates:	Nuclide	Activity
232913	12/15/2011 - 3/15/2012	mR/Std Qtr	13.0
237599	3/15/2012 - 6/14/2012	mR/Std Qtr	12.0
243965	6/14/2012 - 9/13/2012	mR/Std Qtr	9.0
249620	9/13/2012 - 12/13/2012	mR/Std Qtr	12.0

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

TLD RING TLD\_OUTER

Sample ID:	Sample Dates:	Nuclide	Activity
232914	12/15/2011 - 3/15/2012	mR/Std Qtr	13.0
237600	3/15/2012 - 6/14/2012	mR/Std Qtr	10.0



**MCGUIRE Radiological Environmental Monitoring Analysis Report - 2012 (Appendix E)**

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

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

TLD RING TLD\_OUTER

Sample ID:	Sample Dates:	Nuclide	Activity
243966	6/14/2012 - 9/13/2012	mR/Std Qtr	10.0
249621	9/13/2012 - 12/13/2012	mR/Std Qtr	13.0

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

TLD RING TLD\_OUTER

Sample ID:	Sample Dates:	Nuclide	Activity
232915	12/15/2011 - 3/15/2012	mR/Std Qtr	20.0
237601	3/15/2012 - 6/14/2012	mR/Std Qtr	18.0
243967	6/14/2012 - 9/13/2012	mR/Std Qtr	18.0
249622	9/13/2012 - 12/13/2012	mR/Std Qtr	21.0

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

TLD RING TLD\_OUTER

Sample ID:	Sample Dates:	Nuclide	Activity
232916	12/15/2011 - 3/15/2012	mR/Std Qtr	18.0
237602	3/15/2012 - 6/14/2012	mR/Std Qtr	17.0
243968	6/14/2012 - 9/13/2012	mR/Std Qtr	17.0
249623	9/13/2012 - 12/13/2012	mR/Std Qtr	20.0

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

TLD RING TLD\_OUTER

Sample ID:	Sample Dates:	Nuclide	Activity
232917	12/15/2011 - 3/15/2012	mR/Std Qtr	21.0
237603	3/15/2012 - 6/14/2012	mR/Std Qtr	18.0
243969	6/14/2012 - 9/13/2012	mR/Std Qtr	17.0
249624	9/13/2012 - 12/13/2012	mR/Std Qtr	21.0

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

TLD RING TLD\_OUTER

Sample ID:	Sample Dates:	Nuclide	Activity
232918	12/15/2011 - 3/15/2012	mR/Std Qtr	17.0
237604	3/15/2012 - 6/14/2012	mR/Std Qtr	16.0
243970	6/14/2012 - 9/13/2012	mR/Std Qtr	15.0
249625	9/13/2012 - 12/13/2012	mR/Std Qtr	19.0

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

TLD RING TLD\_OUTER

Sample ID:	Sample Dates:	Nuclide	Activity
232919	12/15/2011 - 3/15/2012	mR/Std Qtr	15.0
237605	3/15/2012 - 6/14/2012	mR/Std Qtr	13.0
243971	6/14/2012 - 9/13/2012	mR/Std Qtr	12.0
249626	9/13/2012 - 12/13/2012	mR/Std Qtr	15.0



# MCGUIRE Radiological Environmental Monitoring Analysis Report - 2012 (Appendix E)

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

## Sample Point 170 [ INDICATOR - WNW @ 4.32 miles ]

TLD RING TLD\_OUTER

Sample ID:	Sample Dates:	Nuclide	Activity
232927	12/15/2011 - 3/15/2012	mR/Std Qtr	23
237613	3/15/2012 - 6/14/2012	mR/Std Qtr	20.0
243979	6/14/2012 - 9/13/2012	mR/Std Qtr	18.0
249636	9/13/2012 - 12/13/2012	mR/Std Qtr	22

## Sample Point 171 [ INDICATOR - NW @ 3.95 miles ]

TLD RING TLD\_OUTER

Sample ID:	Sample Dates:	Nuclide	Activity
232920	12/15/2011 - 3/15/2012	mR/Std Qtr	19.0
237606	3/15/2012 - 6/14/2012	mR/Std Qtr	17.0
243972	6/14/2012 - 9/13/2012	mR/Std Qtr	14.0
249627	9/13/2012 - 12/13/2012	mR/Std Qtr	16.0

## Sample Point 172 [ INDICATOR - NNW @ 4.69 miles ]

TLD RING TLD\_OUTER

Sample ID:	Sample Dates:	Nuclide	Activity
232921	12/15/2011 - 3/15/2012	mR/Std Qtr	17.0
237607	3/15/2012 - 6/14/2012	mR/Std Qtr	14.0
243973	6/14/2012 - 9/13/2012	mR/Std Qtr	13.0
249628	9/13/2012 - 12/13/2012	mR/Std Qtr	17.0

## Sample Point 173 [ INDICATOR - NNW @ 8.39 miles ]

TLD RING TLD\_SPEC

Sample ID:	Sample Dates:	Nuclide	Activity
232922	12/15/2011 - 3/15/2012	mR/Std Qtr	24.0
237608	3/15/2012 - 6/14/2012	mR/Std Qtr	23.0
243974	6/14/2012 - 9/13/2012	mR/Std Qtr	23.0
249629	9/13/2012 - 12/13/2012	mR/Std Qtr	24.0

## Sample Point 174 [ INDICATOR - WNW @ 8.77 miles ]

TLD RING TLD\_SPEC

Sample ID:	Sample Dates:	Nuclide	Activity
232923	12/15/2011 - 3/15/2012	mR/Std Qtr	24.0
237609	3/15/2012 - 6/14/2012	mR/Std Qtr	23.0
243975	6/14/2012 - 9/13/2012	mR/Std Qtr	21.0
249630	9/13/2012 - 12/13/2012	mR/Std Qtr	24.0

## Sample Point 175 [ CONTROL - WNW @ 15.5 miles ]

TLD RING TLD\_CTRL

Sample ID:	Sample Dates:	Nuclide	Activity
232924	12/15/2011 - 3/15/2012	mR/Std Qtr	25.0
237610	3/15/2012 - 6/14/2012	mR/Std Qtr	23.0
243976	6/14/2012 - 9/13/2012	mR/Std Qtr	20.0



**MCGUIRE Radiological Environmental Monitoring Analysis Report - 2012 (Appendix E)**

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

Sample Point 175 [ CONTROL - WNW @ 15.5 miles ]

TLD RING TLD\_CTRL

Sample ID:	Sample Dates:	Nuclide	Activity
249631	9/13/2012 - 12/13/2012	mR/Std Qtr	24.0

Sample Point 177 [ INDICATOR - S @ 8.77 miles ]

TLD RING TLD\_SPEC

Sample ID:	Sample Dates:	Nuclide	Activity
232925	12/15/2011 - 3/15/2012	mR/Std Qtr	15.0
237611	3/15/2012 - 6/14/2012	mR/Std Qtr	13.0
243977	6/14/2012 - 9/13/2012	mR/Std Qtr	11.0
249632	9/13/2012 - 12/13/2012	mR/Std Qtr	16.0

Sample Point 178 [ INDICATOR - SE @ 9.36 miles ]

TLD RING TLD\_SPEC

Sample ID:	Sample Dates:	Nuclide	Activity
232926	12/15/2011 - 3/15/2012	mR/Std Qtr	16.0
237612	3/15/2012 - 6/14/2012	mR/Std Qtr	14.0
243978	6/14/2012 - 9/13/2012	mR/Std Qtr	13.0
249633	9/13/2012 - 12/13/2012	mR/Std Qtr	16.0

Sample Point 180 [ INDICATOR - NNE @ 12.7 miles ]

TLD RING TLD\_SPEC

Sample ID:	Sample Dates:	Nuclide	Activity
232960	12/15/2011 - 3/15/2012	mR/Std Qtr	27.0
237646	3/15/2012 - 6/14/2012	mR/Std Qtr	26.0
244012	6/14/2012 - 9/13/2012	mR/Std Qtr	24.0
249670	9/13/2012 - 12/13/2012	mR/Std Qtr	29.0

Sample Point 181 [ INDICATOR - NE @ 7.02 miles ]

TLD RING TLD\_SPEC

Sample ID:	Sample Dates:	Nuclide	Activity
232961	12/15/2011 - 3/15/2012	mR/Std Qtr	18.0
237647	3/15/2012 - 6/14/2012	mR/Std Qtr	17.0
244013	6/14/2012 - 9/13/2012	mR/Std Qtr	14.0
249671	9/13/2012 - 12/13/2012	mR/Std Qtr	17.0

Sample Point 182 [ INDICATOR - ENE @ 6.23 miles ]

TLD RING TLD\_SPEC

Sample ID:	Sample Dates:	Nuclide	Activity
232962	12/15/2011 - 3/15/2012	mR/Std Qtr	17.0
237648	3/15/2012 - 6/14/2012	mR/Std Qtr	14.0
244014	6/14/2012 - 9/13/2012	mR/Std Qtr	12.0
249672	9/13/2012 - 12/13/2012	mR/Std Qtr	16.0

Sample Point 186 [ INDICATOR - NNW @ 0.24 miles ]

TLD RING TLD\_SPEC

Sample ID:	Sample Dates:	Nuclide	Activity
232963	12/15/2011 - 3/15/2012	mR/Std Qtr	18.0



# MCGUIRE Radiological Environmental Monitoring Analysis Report - 2012 (Appendix E)

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

Sample Point 186 [ INDICATOR - NNW @ 0.24 miles ]

TLD RING TLD\_SPEC

Sample ID:	Sample Dates:	Nuclide	Activity
237649	3/15/2012 - 6/14/2012	mR/Std Qtr	15.0
244015	6/14/2012 - 9/13/2012	mR/Std Qtr	14.0
249673	9/13/2012 - 12/13/2012	mR/Std Qtr	16.0

Sample Point 187 [ INDICATOR - N @ 0.19 miles ]

TLD RING TLD\_SPEC

Sample ID:	Sample Dates:	Nuclide	Activity
232964	12/15/2011 - 3/15/2012	mR/Std Qtr	20.0
237650	3/15/2012 - 6/14/2012	mR/Std Qtr	15.0
244016	6/14/2012 - 9/13/2012	mR/Std Qtr	15.0
249674	9/13/2012 - 12/13/2012	mR/Std Qtr	19.0

Sample Point 189 [ INDICATOR - SSE @ 0.43 miles ]

TLD RING TLD\_INNER

Sample ID:	Sample Dates:	Nuclide	Activity
232965	12/15/2011 - 3/15/2012	mR/Std Qtr	23.0
237651	3/15/2012 - 6/14/2012	mR/Std Qtr	15.0
244017	6/14/2012 - 9/13/2012	mR/Std Qtr	14.0
249675	9/13/2012 - 12/13/2012	mR/Std Qtr	17.0

Sample Point 190 [ INDICATOR - WSW @ 0.37 miles ]

TLD RING TLD\_INNER

Sample ID:	Sample Dates:	Nuclide	Activity
232966	12/15/2011 - 3/15/2012	mR/Std Qtr	20.0
237652	3/15/2012 - 6/14/2012	mR/Std Qtr	21
244018	6/14/2012 - 9/13/2012	mR/Std Qtr	17.0
249676	9/13/2012 - 12/13/2012	mR/Std Qtr	21.0

Sample Point 191 [ INDICATOR - NNE @ 2.84 miles ]

TLD RING TLD\_SPEC

Sample ID:	Sample Dates:	Nuclide	Activity
232967	12/15/2011 - 3/15/2012	mR/Std Qtr	18.0
237653	3/15/2012 - 6/14/2012	mR/Std Qtr	16.0
244019	6/14/2012 - 9/13/2012	mR/Std Qtr	15.0
249677	9/13/2012 - 12/13/2012	mR/Std Qtr	20.0

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

Sample Point 102 [ CONTROL - WNW @ 9.89 miles ]

Sample ID:	Sample Dates:	Nuclide	Activity	1 Sigma Error	LLD
226931	1/3/2012 - 1/3/2012	I-131	<2.90E+01	0.00E+00	2.90E+01
		Cs-134	<2.18E+01	0.00E+00	2.18E+01
		Cs-137	<2.87E+01	0.00E+00	2.87E+01
		Be-7	2.16E+03	1.87E+02	2.27E+02
		K-40	3.84E+03	3.06E+02	2.85E+02
227926	2/6/2012 - 2/6/2012	I-131	<2.98E+01	0.00E+00	2.98E+01





# MCGUIRE Radiological Environmental Monitoring Analysis Report - 2012 (Appendix E)

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

Sample Point 102 [ CONTROL - WNW @ 9.89 miles ]

Sample ID:	Sample Dates:	Nuclide	Activity	1 Sigma Error	LLD
227926	2/6/2012 - 2/6/2012	Cs-134	<2.39E+01	0.00E+00	2.39E+01
		Cs-137	<3.35E+01	0.00E+00	3.35E+01
		Be-7	2.24E+03	1.79E+02	1.78E+02
		K-40	3.88E+03	3.52E+02	2.46E+02
230878	3/5/2012 - 3/5/2012	I-131	<1.78E+01	0.00E+00	1.78E+01
		Cs-134	<1.93E+01	0.00E+00	1.93E+01
		Cs-137	<2.45E+01	0.00E+00	2.45E+01
		Be-7	1.42E+03	1.16E+02	1.46E+02
		K-40	4.46E+03	2.75E+02	2.16E+02
233482	4/2/2012 - 4/2/2012	I-131	<2.65E+01	0.00E+00	2.65E+01
		Cs-134	<3.10E+01	0.00E+00	3.10E+01
		Cs-137	<3.51E+01	0.00E+00	3.51E+01
		Be-7	7.70E+02	1.64E+02	2.33E+02
		K-40	3.61E+03	3.37E+02	3.71E+02
235418	5/7/2012 - 5/7/2012	I-131	<1.82E+01	0.00E+00	1.82E+01
		Cs-134	<1.48E+01	0.00E+00	1.48E+01
		Cs-137	<1.40E+01	0.00E+00	1.40E+01
		Be-7	8.52E+02	8.72E+01	1.27E+02
		K-40	4.72E+03	2.36E+02	1.89E+02
236730	6/4/2012 - 6/4/2012	I-131	<1.81E+01	0.00E+00	1.81E+01
		Cs-134	<1.50E+01	0.00E+00	1.50E+01
		Cs-137	<1.83E+01	0.00E+00	1.83E+01
		Be-7	1.39E+03	1.08E+02	1.26E+02
		K-40	4.80E+03	2.74E+02	2.14E+02
238697	7/2/2012 - 7/2/2012	I-131	<1.31E+01	0.00E+00	1.31E+01
		Cs-134	<1.37E+01	0.00E+00	1.37E+01
		Cs-137	<1.69E+01	0.00E+00	1.69E+01
		Be-7	7.78E+02	7.70E+01	1.16E+02
		K-40	3.72E+03	2.12E+02	1.42E+02
240340	8/6/2012 - 8/6/2012	I-131	<2.56E+01	0.00E+00	2.56E+01
		Cs-134	<2.36E+01	0.00E+00	2.36E+01
		Cs-137	<2.02E+01	0.00E+00	2.02E+01
		Be-7	9.77E+02	1.19E+02	1.61E+02
		K-40	3.81E+03	2.92E+02	1.62E+02
242211	9/4/2012 - 9/4/2012	I-131	<1.45E+01	0.00E+00	1.45E+01
		Cs-134	<1.41E+01	0.00E+00	1.41E+01
		Cs-137	<1.76E+01	0.00E+00	1.76E+01
		Be-7	1.08E+03	9.07E+01	1.11E+02
		K-40	3.06E+03	1.97E+02	1.42E+02
244910	10/1/2012 - 10/1/2012	I-131	<2.10E+01	0.00E+00	2.10E+01
		Cs-134	<1.56E+01	0.00E+00	1.56E+01
		Cs-137	<2.48E+01	0.00E+00	2.48E+01
		Be-7	1.88E+03	1.31E+02	1.63E+02
		K-40	4.18E+03	2.68E+02	1.24E+02
247386	11/5/2012 - 11/5/2012	I-131	<3.51E+01	0.00E+00	3.51E+01
		Cs-134	<3.37E+01	0.00E+00	3.37E+01
		Cs-137	<3.87E+01	0.00E+00	3.87E+01
		Be-7	1.46E+03	2.17E+02	3.02E+02
		K-40	5.26E+03	4.18E+02	2.44E+02
248655	12/3/2012 - 12/3/2012	I-131	<2.16E+01	0.00E+00	2.16E+01
		Cs-134	<1.88E+01	0.00E+00	1.88E+01



**MCGUIRE Radiological Environmental Monitoring Analysis Report - 2012 (Appendix E)**

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

Sample Point 102 [ CONTROL - WNW @ 9.89 miles ]

Sample ID:	Sample Dates:	Nuclide	Activity	1 Sigma Error	LLD
248655	12/3/2012 - 12/3/2012	Cs-137	<2.70E+01	0.00E+00	2.70E+01
		Be-7	9.55E+02	1.03E+02	1.61E+02
		K-40	3.56E+03	3.19E+02	3.08E+02

Sample Point 120 [ INDICATOR - NNE @ 0.46 miles ]

Sample ID:	Sample Dates:	Nuclide	Activity	1 Sigma Error	LLD
226908	1/3/2012 - 1/3/2012	I-131	<2.44E+01	0.00E+00	2.44E+01
		Cs-134	<3.24E+01	0.00E+00	3.24E+01
		Cs-137	<3.50E+01	0.00E+00	3.50E+01
		Be-7	1.02E+03	1.52E+02	2.13E+02
		K-40	4.57E+03	3.58E+02	2.31E+02

Sample ID:	Sample Dates:	Nuclide	Activity	1 Sigma Error	LLD
227939	2/6/2012 - 2/6/2012	I-131	<2.55E+01	0.00E+00	2.55E+01
		Cs-134	<3.05E+01	0.00E+00	3.05E+01
		Cs-137	<2.97E+01	0.00E+00	2.97E+01
		Be-7	1.04E+03	1.60E+02	2.14E+02
		K-40	3.83E+03	3.62E+02	3.42E+02

Sample ID:	Sample Dates:	Nuclide	Activity	1 Sigma Error	LLD
230891	3/5/2012 - 3/5/2012	I-131	<2.71E+01	0.00E+00	2.71E+01
		Cs-134	<3.44E+01	0.00E+00	3.44E+01
		Cs-137	<5.17E+01	0.00E+00	5.17E+01
		Be-7	8.38E+02	1.49E+02	2.40E+02
		K-40	3.99E+03	4.77E+02	5.08E+02

Sample ID:	Sample Dates:	Nuclide	Activity	1 Sigma Error	LLD
233522	4/2/2012 - 4/2/2012	I-131	<2.99E+01	0.00E+00	2.99E+01
		Cs-134	<2.93E+01	0.00E+00	2.93E+01
		Cs-137	<3.96E+01	0.00E+00	3.96E+01
		Be-7	4.69E+02	1.28E+02	2.30E+02
		K-40	3.50E+03	3.37E+02	3.02E+02

Sample ID:	Sample Dates:	Nuclide	Activity	1 Sigma Error	LLD
235437	5/7/2012 - 5/7/2012	I-131	<2.44E+01	0.00E+00	2.44E+01
		Cs-134	<2.78E+01	0.00E+00	2.78E+01
		Cs-137	<2.13E+01	0.00E+00	2.13E+01
		Be-7	4.94E+02	1.19E+02	2.20E+02
		K-40	4.19E+03	3.61E+02	2.24E+02

Sample ID:	Sample Dates:	Nuclide	Activity	1 Sigma Error	LLD
236743	6/4/2012 - 6/4/2012	I-131	<2.03E+01	0.00E+00	2.03E+01
		Cs-134	<2.15E+01	0.00E+00	2.15E+01
		Cs-137	<1.87E+01	0.00E+00	1.87E+01
		Be-7	7.23E+02	9.96E+01	1.40E+02
		K-40	4.23E+03	2.70E+02	2.05E+02

Sample ID:	Sample Dates:	Nuclide	Activity	1 Sigma Error	LLD
238710	7/2/2012 - 7/2/2012	I-131	<2.39E+01	0.00E+00	2.39E+01
		Cs-134	<1.83E+01	0.00E+00	1.83E+01
		Cs-137	<2.94E+01	0.00E+00	2.94E+01
		Be-7	6.03E+02	9.98E+01	1.69E+02
		K-40	3.89E+03	2.65E+02	2.45E+02

Sample ID:	Sample Dates:	Nuclide	Activity	1 Sigma Error	LLD
240317	8/6/2012 - 8/6/2012	I-131	<2.62E+01	0.00E+00	2.62E+01
		Cs-134	<2.26E+01	0.00E+00	2.26E+01
		Cs-137	<3.75E+01	0.00E+00	3.75E+01
		Be-7	1.37E+03	1.84E+02	2.60E+02
		K-40	3.28E+03	3.28E+02	8.87E+01

Sample ID:	Sample Dates:	Nuclide	Activity	1 Sigma Error	LLD
242229	9/4/2012 - 9/4/2012	I-131	<2.16E+01	0.00E+00	2.16E+01
		Cs-134	<1.53E+01	0.00E+00	1.53E+01
		Cs-137	<2.85E+01	0.00E+00	2.85E+01
		Be-7	1.21E+03	1.18E+02	1.39E+02
		K-40	3.38E+03	2.36E+02	1.85E+02

Sample ID:	Sample Dates:	Nuclide	Activity	1 Sigma Error	LLD
244950	10/1/2012 - 10/1/2012	I-131	<3.11E+01	0.00E+00	3.11E+01



# MCGUIRE Radiological Environmental Monitoring Analysis Report - 2012 (Appendix E)

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

Sample Point 120 [ INDICATOR - NNE @ 0.46 miles ]

Sample ID:	Sample Dates:	Nuclide	Activity	1 Sigma Error	LLD
244950	10/1/2012 - 10/1/2012	Cs-134	<2.72E+01	0.00E+00	2.72E+01
		Cs-137	<3.51E+01	0.00E+00	3.51E+01
		Be-7	1.30E+03	1.48E+02	2.72E+02
		K-40	4.22E+03	3.05E+02	2.54E+02
247398	11/5/2012 - 11/5/2012	I-131	<2.67E+01	0.00E+00	2.67E+01
		Cs-134	<3.22E+01	0.00E+00	3.22E+01
		Cs-137	<4.01E+01	0.00E+00	4.01E+01
		Be-7	1.01E+03	1.36E+02	1.82E+02
		K-40	5.80E+03	3.86E+02	2.60E+02
248673	12/3/2012 - 12/3/2012	I-131	<2.91E+01	0.00E+00	2.91E+01
		Cs-134	<3.03E+01	0.00E+00	3.03E+01
		Cs-137	<3.82E+01	0.00E+00	3.82E+01
		Be-7	<3.70E+02	0.00E+00	3.70E+02
		K-40	4.97E+03	4.71E+02	4.00E+02

Sample Point 125 [ INDICATOR - SW @ 0.38 miles ]

Sample ID:	Sample Dates:	Nuclide	Activity	1 Sigma Error	LLD
226934	1/3/2012 - 1/3/2012	I-131	<2.38E+01	0.00E+00	2.38E+01
		Cs-134	<2.88E+01	0.00E+00	2.88E+01
		Cs-137	<3.20E+01	0.00E+00	3.20E+01
		Be-7	8.47E+02	1.49E+02	1.96E+02
		K-40	3.98E+03	3.18E+02	3.00E+02
227929	2/6/2012 - 2/6/2012	I-131	<3.29E+01	0.00E+00	3.29E+01
		Cs-134	<3.90E+01	0.00E+00	3.90E+01
		Cs-137	<4.33E+01	0.00E+00	4.33E+01
		Be-7	8.00E+02	1.42E+02	2.90E+02
		K-40	3.40E+03	4.02E+02	4.42E+02
230881	3/5/2012 - 3/5/2012	I-131	<2.86E+01	0.00E+00	2.86E+01
		Cs-134	<3.27E+01	0.00E+00	3.27E+01
		Cs-137	<3.79E+01	0.00E+00	3.79E+01
		Be-7	1.03E+03	1.54E+02	2.44E+02
		K-40	2.98E+03	3.28E+02	2.64E+02
233485	4/2/2012 - 4/2/2012	I-131	<1.58E+01	0.00E+00	1.58E+01
		Cs-134	<1.32E+01	0.00E+00	1.32E+01
		Cs-137	<1.84E+01	0.00E+00	1.84E+01
		Be-7	3.96E+02	6.22E+01	1.17E+02
		K-40	5.10E+03	2.23E+02	1.17E+02
235421	5/7/2012 - 5/7/2012	I-131	<1.83E+01	0.00E+00	1.83E+01
		Cs-134	<1.88E+01	0.00E+00	1.88E+01
		Cs-137	<2.70E+01	0.00E+00	2.70E+01
		Be-7	5.02E+02	8.01E+01	1.37E+02
		K-40	4.57E+03	2.91E+02	2.42E+02
236733	6/4/2012 - 6/4/2012	I-131	<2.12E+01	0.00E+00	2.12E+01
		Cs-134	<2.35E+01	0.00E+00	2.35E+01
		Cs-137	<2.29E+01	0.00E+00	2.29E+01
		Be-7	7.44E+02	1.07E+02	1.62E+02
		K-40	5.71E+03	3.05E+02	1.62E+02
238700	7/2/2012 - 7/2/2012	I-131	<1.79E+01	0.00E+00	1.79E+01
		Cs-134	<1.58E+01	0.00E+00	1.58E+01
		Cs-137	<2.43E+01	0.00E+00	2.43E+01
		Be-7	8.87E+02	1.17E+02	1.35E+02
		K-40	5.01E+03	2.78E+02	4.18E+01



**MCGUIRE Radiological Environmental Monitoring Analysis Report - 2012 (Appendix E)**

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

Sample Point 125 [ INDICATOR - SW @ 0.38 miles ]

Sample ID:	Sample Dates:	Nuclide	Activity	1 Sigma Error	LLD
240343	8/6/2012 - 8/6/2012	I-131	<2.77E+01	0.00E+00	2.77E+01
		Cs-134	<3.09E+01	0.00E+00	3.09E+01
		Cs-137	<3.48E+01	0.00E+00	3.48E+01
		Be-7	8.98E+02	1.31E+02	2.21E+02
		K-40	3.03E+03	3.16E+02	3.01E+02
242214	9/4/2012 - 9/4/2012	I-131	<2.81E+01	0.00E+00	2.81E+01
		Cs-134	<2.45E+01	0.00E+00	2.45E+01
		Cs-137	<2.97E+01	0.00E+00	2.97E+01
		Be-7	8.69E+02	1.47E+02	1.85E+02
		K-40	3.75E+03	3.58E+02	9.21E+01
244915	10/1/2012 - 10/1/2012	I-131	<3.01E+01	0.00E+00	3.01E+01
		Cs-134	<2.46E+01	0.00E+00	2.46E+01
		Cs-137	<2.73E+01	0.00E+00	2.73E+01
		Be-7	1.61E+03	1.48E+02	1.79E+02
		K-40	3.17E+03	2.51E+02	2.84E+02
247391	11/5/2012 - 11/5/2012	I-131	<2.38E+01	0.00E+00	2.38E+01
		Cs-134	<2.57E+01	0.00E+00	2.57E+01
		Cs-137	<3.00E+01	0.00E+00	3.00E+01
		Be-7	1.23E+03	1.87E+02	2.36E+02
		K-40	4.00E+03	3.05E+02	3.30E+02
248660	12/3/2012 - 12/3/2012	I-131	<2.45E+01	0.00E+00	2.45E+01
		Cs-134	<2.73E+01	0.00E+00	2.73E+01
		Cs-137	<3.18E+01	0.00E+00	3.18E+01
		Be-7	3.15E+02	1.25E+02	2.63E+02
		K-40	4.39E+03	3.89E+02	2.60E+02

Sample Point 193 [ INDICATOR - N @ 0.19 miles ]

Sample ID:	Sample Dates:	Nuclide	Activity	1 Sigma Error	LLD
226932	1/3/2012 - 1/3/2012	I-131	<2.73E+01	0.00E+00	2.73E+01
		Cs-134	<2.46E+01	0.00E+00	2.46E+01
		Cs-137	<4.13E+01	0.00E+00	4.13E+01
		Be-7	1.65E+03	2.22E+02	2.47E+02
		K-40	3.99E+03	3.93E+02	2.76E+02
227927	2/6/2012 - 2/6/2012	I-131	<2.86E+01	0.00E+00	2.86E+01
		Cs-134	<2.63E+01	0.00E+00	2.63E+01
		Cs-137	<3.36E+01	0.00E+00	3.36E+01
		Be-7	1.33E+03	1.58E+02	2.16E+02
		K-40	4.44E+03	3.86E+02	2.39E+02
230879	3/5/2012 - 3/5/2012	I-131	<2.11E+01	0.00E+00	2.11E+01
		Cs-134	<1.88E+01	0.00E+00	1.88E+01
		Cs-137	<2.00E+01	0.00E+00	2.00E+01
		Be-7	1.33E+03	1.27E+02	1.47E+02
		K-40	5.39E+03	3.17E+02	1.69E+02
233483	4/2/2012 - 4/2/2012	I-131	<1.20E+01	0.00E+00	1.20E+01
		Cs-134	<1.11E+01	0.00E+00	1.11E+01
		Cs-137	<1.72E+01	0.00E+00	1.72E+01
		Be-7	5.99E+02	7.41E+01	1.08E+02
		K-40	5.51E+03	2.24E+02	1.08E+02
235419	5/7/2012 - 5/7/2012	I-131	<1.65E+01	0.00E+00	1.65E+01
		Cs-134	<1.94E+01	0.00E+00	1.94E+01
		Cs-137	<2.46E+01	0.00E+00	2.46E+01
		Be-7	8.96E+02	1.31E+02	1.28E+02
		K-40	5.01E+03	3.66E+02	2.67E+02



**MCGUIRE Radiological Environmental Monitoring Analysis Report - 2012 (Appendix E)**

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

Sample Point 193 [ INDICATOR - N @ 0.19 miles ]

Sample ID:	Sample Dates:	Nuclide	Activity	1 Sigma Error	LLD
236731	6/4/2012 - 6/4/2012	I-131	<2.44E+01	0.00E+00	2.44E+01
		Cs-134	<2.11E+01	0.00E+00	2.11E+01
		Cs-137	<2.70E+01	0.00E+00	2.70E+01
		Be-7	7.90E+02	1.16E+02	1.51E+02
		K-40	5.61E+03	4.23E+02	3.05E+02
238698	7/2/2012 - 7/2/2012	I-131	<2.06E+01	0.00E+00	2.06E+01
		Cs-134	<2.27E+01	0.00E+00	2.27E+01
		Cs-137	<2.55E+01	0.00E+00	2.55E+01
		Be-7	1.00E+03	1.22E+02	1.74E+02
		K-40	4.47E+03	3.35E+02	3.49E+02
240341	8/6/2012 - 8/6/2012	I-131	<2.18E+01	0.00E+00	2.18E+01
		Cs-134	<1.68E+01	0.00E+00	1.68E+01
		Cs-137	<2.55E+01	0.00E+00	2.55E+01
		Be-7	1.62E+03	1.37E+02	1.24E+02
		K-40	5.43E+03	3.27E+02	1.42E+02
242212	9/4/2012 - 9/4/2012	I-131	<3.17E+01	0.00E+00	3.17E+01
		Cs-134	<2.90E+01	0.00E+00	2.90E+01
		Cs-137	<2.76E+01	0.00E+00	2.76E+01
		Be-7	1.18E+03	2.03E+02	2.33E+02
		K-40	4.65E+03	4.00E+02	4.03E+02
244911	10/1/2012 - 10/1/2012	I-131	<2.66E+01	0.00E+00	2.66E+01
		Cs-134	<2.40E+01	0.00E+00	2.40E+01
		Cs-137	<2.85E+01	0.00E+00	2.85E+01
		Be-7	1.14E+03	1.41E+02	1.80E+02
		K-40	5.54E+03	3.26E+02	1.72E+02
247387	11/5/2012 - 11/5/2012	I-131	<1.23E+01	0.00E+00	1.23E+01
		Cs-134	<1.84E+01	0.00E+00	1.84E+01
		Cs-137	<2.08E+01	0.00E+00	2.08E+01
		Be-7	1.06E+03	9.49E+01	1.64E+02
		K-40	4.40E+03	2.86E+02	1.99E+02
248656	12/3/2012 - 12/3/2012	I-131	<1.83E+01	0.00E+00	1.83E+01
		Cs-134	<1.83E+01	0.00E+00	1.83E+01
		Cs-137	<2.90E+01	0.00E+00	2.90E+01
		Be-7	1.17E+03	1.10E+02	1.43E+02
		K-40	4.84E+03	3.16E+02	2.43E+02



**APPENDIX F**

**ERRATA TO**  
**PREVIOUS REPORTS**

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# APPENDIX F

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## ERRATA TO THE 2012 AREOR

There are no errata to be appended to the 2012 AREOR.