

11/16/07

CONDITION REPORT

CR Number
07-30031

TITLE: DOCUMENTATION OF DAVIS-BESSE GROUNDWATER TRITIUM RESULTS FOR YEAR 2007

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DISCOVERY DATE 11/6/2007	TIME N/A	EVENT DATE 11/6/2007	TIME N/A	SYSTEM / ASSET#
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EQUIPMENT DESCRIPTION New and Construction Era Groundwater Wells

System: FLOC AP-913:

DESCRIPTION OF CONDITION and PROBABLE CAUSE (if known) Summarize any attachments. Identify what, when, where, why, how.

Following the guidance provided in the new NEI Groundwater Protection Initiative, Davis-Besse began sampling construction era groundwater wells in June, 2007. This Condition Report (CR) is being written in order to document results of Groundwater Monitoring at Davis-Besse during 2007. These results are attached.

Three rounds of sampling occurred between June and October. The first and second round of samples were collected from existing construction-era monitoring wells. The third set of samples was collected from both existing wells and newly drilled wells. No gamma activity was detected in any of the wells, however, low levels of Tritium were found in several well locations east of the plant inside the Protected Area. Results of the testing indicated Tritium present at concentrations ranging between a low level of less than detectable (~200 pCi/liter) to a high of 7734 pCi/liter. The allowable limit for Tritium in groundwater is 20,000 pCi/liter if the water is used for drinking purposes, and 30,000 pCi/liter for non-drinking water. All of the samples were taken on site property; groundwater samples taken offsite in the vicinity of the plant continue to show no detectable activity.

A new NEI Groundwater Protection Initiative was launched this year, following radioactive contamination of groundwater near several non-FENOC nuclear plants. As a result of this initiative, all nuclear plants were to begin groundwater monitoring, with courtesy notifications to be made to State, County, and local officials if any groundwater sample result showed a Tritium concentration above 2,000 pCi/liter. During all three rounds of sampling, at least one Davis-Besse well showed Tritium above 2,000 pCi/liter. Informal notifications to state, county and local officials were made all three times.

Results from the year 2007 sampling will be listed in the Annual Radiological Environmental and Radiological Effluent Tech Spec Report, which will be published prior to 5/1/08. This CR has two previous, related CRs, those being CR07-23488 and CR07-25151.

IMMEDIATE ACTIONS TAKEN / SUPV COMMENTS (Discuss CORRECTIVE ACTIONS completed, basis for closure.)

"The latest samples, collected September 24 through 27, and October 1 through 10, included validation samples of previously sampled sighting wells and the first sampling of the newly installed groundwater monitoring wells. The resamples of wells with previously elevated tritium concentrations reflected a significant reduction. The new groundwater monitoring wells showed tritium concentrations ranging from below detection to approximately 500 pCi/l with the exception of well MW105A adjacent to sighting well MW31, which had a tritium concentration of 1830 pCi/l. All were below the administrative notification value of 2000 pCi." Informal notifications were made to state, county and local officials on November 8 and 9, 2007 after a sample result over 2,000 pCi/liter was received. This Condition Report is written for trending purposes. No other actions are necessary.

QUALITY ORGANIZATION USE ONLY		IDENTIFIED BY (Check one)		ATTACHMENTS	
Quality Org. Initiated	<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> Individual/Work Group	<input type="checkbox"/> Self-Revealed	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	
Quality Org. Follow-up	<input type="checkbox"/> Yes <input type="checkbox"/> No	<input type="checkbox"/> Supervision/Management	<input type="checkbox"/> Internal Oversight <input type="checkbox"/> External Oversight		
ORIGINATOR	ORGANIZATION	DATE	SUPERVISOR	DATE	PHONE EXT.
PERCIVAL, A	DBCH	11/12/2007	CAPOZZIELLO, V	11/12/2007	7142

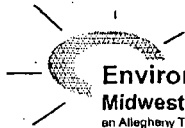
N-LS

CONDITION REPORT

CR Number
07-30031

TITLE: DOCUMENTATION OF DAVIS-BESSE GROUNDWATER TRITIUM RESULTS FOR YEAR 2007

P L A N T O P E R A T I O N S	SRO REVIEW <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No		EQUIPMENT OPERABLE <input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/		OPERABILITY ASSESSMENT REQUIRED <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No		ORG. NOTIFIED N/A		IMMEDIATE INVESTIGATION REQUIRED <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No		ORG. NOTIFIED N/A		MODE CHANGE RESTRAINT <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No				
	MODE		ASSOCIATED TECH SPEC NUMBER(S)			ASSOCIATED LCO ACTION STATEMENT(S)											
	N/A		N/A			#1 N/A											
						#2											
						#3											
	DECLARED INOPERABLE (Date / Time)				REPORTABLE?				One Hour N/A				APPLICABLE UNIT(S)				
	N/A				<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> Eval Required				Four Hour N/A Eight Hour N/A Other N/A				<input checked="" type="checkbox"/> U1 <input type="checkbox"/> U2 <input type="checkbox"/> Both				
	COMMENTS																
	N/A																
	Current Mode - Unit 1				Power Level - Unit 1				Current Mode - Unit 2				Power Level - Unit 2				
N/A				N/A				N/A				N/A					
SRO - UNIT 1							SRO - UNIT 2							DATE			
Approved By Supv							N/A							11/12/2007			
CRPA / SUPV / MRB	CATEGORY / EVAL			ASSIGNED ORGANIZATION				DUE DATE			R E G U L A T O R Y	REPORTABLE?					
	AC			DBCH				12/12/2007				<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> LER No.					
	TREND CODES											REPORTABILITY REVIEWER					
	Process / Activity / Cause Code(s) OP2 4500 NA											Wolf, G					
										DATE							
										11/14/07							
INVESTIGATION OPTIONS										CLOSED BY				DATE			
<input type="checkbox"/> Maint.Rule <input type="checkbox"/> OE Evaluation <input type="checkbox"/> Generic Implications <input type="checkbox"/> Part 21														11/19/2007			



Environmental, Inc.
Midwest Laboratory
an Allegheny Technologies Co.

700 Landwehr Road • Northbrook, IL 60062-2310
ph. (847) 564-0700 • fax (847) 564-4517

Mr. Al Percival)
FirstEnergy Corporation
Mail Stop 1041
5501 North State Route 2
Oak Harbor, Ohio 43449

LABORATORY REPORT NO.: 8003-100-363
DATE: 07-12-07
SAMPLES RECEIVED: 07-03-07
PURCHASE ORDER NO.: _____

Dear Mr. Percival)

Enclosed are results of the analyses for tritium and gamma-emitting isotopes in fourteen ground water samples.

Should you have any questions or other concerns, please do not hesitate to call.

Sincerely,

S.A. Coorlim,
Quality Assurance

Bronia Grob, M.S.
Laboratory Manager

SAMPLES RETAINED THIRTY DAYS AFTER ANALYSIS

Table 1. Results of analyses for tritium and gamma-emitting isotopes in fourteen ground water samples.

Sample Location	MW-12S	MW-18S	MW-18D	DBD-01	MW-20S
Date Collected	06-14-07	06-14-07	06-14-07	06-14-07	6/25/2007
Time Collected	10:07	12:30	14:27	14:27	10:16
Lab Code	TXW-4117	TXW-4118	TXW-4119	TXW-4120	TXW-4121
Isotope	Concentration (pCi/L)				
H-3 ^a	657 ± 118	277 ± 106	204 ± 103	764 ± 121	255 ± 104
Mn-54	< 2.3	< 1.8	< 1.7	< 3.6	< 3.0
Fe-59	< 7.7	< 4.7	< 7.9	< 6.8	< 10.2
Co-58	< 2.7	< 3.1	< 2.1	< 2.2	< 6.4
Co-60	< 3.0	< 2.6	< 2.4	< 2.5	< 3.6
Zn-65	< 5.0	< 3.9	< 5.2	< 3.0	< 5.5
Zr-Nb-95	< 6.2	< 3.2	< 4.2	< 5.0	< 6.9
Cs-134	< 3.1	< 3.5	< 3.2	< 3.3	< 4.3
Cs-137	< 3.4	< 1.8	< 3.6	< 2.3	< 7.1
Ba-La-140	< 8.9	< 5.1	< 6.9	< 7.8	< 6.2

Sample Location	MW-20D	MW-32S	DBD-02	MW-32D	MW-15S
Date Collected	6/25/2007	6/25/2007	6/25/2007	6/26/2007	6/26/2007
Time Collected	12:50	12:00	14:58	9:50	12:00
Lab Code	TXW-4122	TXW-4123	TXW-4124	TXW-4125	TXW-4126
Isotope	Concentration (pCi/L)				
H-3	328 ± 107	5838 ± 237	279 ± 105	466 ± 112	375 ± 95
Mn-54	< 3.2	< 2.8	< 3.3	< 2.4	< 2.7
Fe-59	< 9.5	< 11.0	< 11.3	< 4.2	< 5.5
Co-58	< 3.2	< 3.9	< 2.6	< 1.7	< 3.5
Co-60	< 3.3	< 2.8	< 4.1	< 2.4	< 2.8
Zn-65	< 6.2	< 4.0	< 8.5	< 5.7	< 3.8
Zr-Nb-95	< 6.2	< 4.9	< 3.1	< 2.7	< 4.4
Cs-134	< 5.2	< 4.7	< 3.9	< 2.6	< 3.7
Cs-137	< 6.1	< 3.3	< 5.4	< 3.4	< 3.8
Ba-La-140	< 7.8	< 11.2	< 14.2	< 3.3	< 5.2

The error given is the probable counting error at the 95% confidence level.
Less than (<), value is based on a 4.66 sigma counting error for the background sample.

Table 1. Results of analyses for tritium and gamma-emitting isotopes in fourteen ground water samples.

Sample Location	MW-15D	MW-30S	MW-33S	MW-33D
Date Collected	06-26-07	06-27-07	06-27-07	06-27-07
Time Collected	14:45	10:00	11:55	13:44
Lab Code	TXW-4127	TXW-4128	TXW-4129	TXW-4130
Isotope	Concentration (pCi/L)			
H-3	704 ± 108	1307 ± 128	2287 ± 154	2975 ± 171
Mn-54	< 3.6	< 3.0	< 3.0	< 2.7
Fe-59	< 9.5	< 7.9	< 14.7	< 5.6
Co-58	< 3.6	< 3.8	< 5.1	< 2.8
Co-60	< 3.8	< 2.7	< 4.1	< 2.8
Zn-65	< 5.1	< 1.6	< 4.3	< 4.7
Zr-Nb-95	< 4.7	< 2.8	< 2.8	< 2.8
Cs-134	< 5.6	< 2.7	< 2.0	< 2.7
Cs-137	< 3.6	< 1.7	< 3.0	< 3.9
Ba-La-140	< 11.4	< 5.0	< 10.6	< 7.3

The error given is the probable counting error at the 95% confidence level.
Less than (<), value is based on a 4.66 sigma counting error for the background sample.



700 Landwehr Road • Northbrook, IL 60062-2310
ph. (847) 564-0700 • fax (847) 564-4517

Mr. Al Percival
FirstEnergy Corporation
Mail Stop 1041
5501 North State Route 2
Oak Harbor, Ohio 43449

LABORATORY REPORT NO.: 8003-100-362
DATE: 07-10-07
SAMPLES RECEIVED: 06-22-07
PURCHASE ORDER NO.:

Dear Mr. Percival

Enclosed are results of the analyses for tritium and gamma-emitting isotopes in five ground water samples, one matrix spike and one matrix spike duplicate.

Should you have any questions or other concerns, please do not hesitate to call.

Sincerely,

A handwritten signature in black ink, appearing to read 'S.A. Coorlim', written over a horizontal line.

S.A. Coorlim,
Quality Assurance

A handwritten signature in black ink, appearing to read 'Bronia Grob', written over a horizontal line.

Bronia Grob, M. S.
Laboratory Manager

SAMPLES RETAINED THIRTY DAYS AFTER ANALYSIS

Table 1. Results of analyses for tritium and gamma-emitting isotopes in five ground water samples, matrix spike and matrix spike duplicate.

Sample Location	MW-1S	MW-1D	MW-26S	MW-26D	MS01-MW-26D
Date Collected	06-12-07	06-12-07	6/13/2007	6/13/2007	6/13/2007
Time Collected	10:49	13:09	10:17	13:13	13:13
Lab Code	TXW-3910	TXW-3911	TXW-3912	TXW-3913	TXW-3914 ^a
Isotope	Concentration (pCi/L)				
H-3	< 169	< 169	341 ± 101	< 169	5000 ± 208
Mn-54	< 2.1	< 3.3	< 4.1	< 3.3	< 2.0
Fe-59	< 6.4	< 6.2	< 9.0	< 6.1	< 4.1
Co-58	< 3.1	< 2.7	< 5.7	< 3.1	< 2.3
Co-60	< 3.1	< 2.3	< 3.1	< 2.5	< 3.5
Zn-65	< 3.2	< 5.9	< 7.5	< 5.2	< 5.6
Zr-Nb-95	< 2.5	< 3.4	< 5.9	< 3.8	< 2.9
Cs-134	< 2.7	< 3.3	< 3.6	< 2.6	62.9 ± 4.5
Cs-137	< 2.0	< 3.3	< 2.9	< 2.9	64.2 ± 6.9
Ba-La-140	< 3.9	< 4.5	< 5.3	< 3.3	< 3.9

Sample Location	MSD01-MW-26E	MW-7S
Date Collected	6/13/2007	06-13-07
Time Collected	13:13	14:53
Lab Code	TXW-3915 ^a	TXW-3916
Isotope	Concentration (pCi/L)	
H-3	5055 ± 209	426 ± 104
Mn-54	< 3.1	< 3.7
Fe-59	< 6.1	< 5.7
Co-58	< 2.9	< 2.0
Co-60	< 1.4	< 2.7
Zn-65	< 5.9	< 2.7
Zr-Nb-95	< 6.3	< 4.3
Cs-134	59.1 ± 4.5	< 2.9
Cs-137	70.0 ± 6.9	< 3.5
Ba-La-140	< 5.9	< 4.2

The error given is the probable counting error at the 95% confidence level.
Less than (<), value is based on a 4.66 sigma counting error for the background sample.

^a Known spike activity (pCi/L): Cs-134 59.3 Cs-137 66.3 H-3, 5639



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Mr. Al Percival
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Oak Harbor, Ohio 43449

LABORATORY REPORT NO.: 8003-100-370
DATE: 11-06-07
SAMPLES RECEIVED: 10-06-07
PURCHASE ORDER NO.:

Dear Mr. Percival

Enclosed are results of the analyses for tritium and gamma-emitting isotopes in twenty-two ground water samples.

Should you have any questions or other concerns, please do not hesitate to call.

Sincerely,

S.A. Coorlim,
Quality Assurance

Bronia Grob, M.S.
Laboratory Manager

SAMPLES RETAINED THIRTY DAYS AFTER ANALYSIS

Table 1: Results of analyses for tritium and gamma-emitting isotopes in fourteen ground water samples.

Sample Location	MW-102B	MW-102C	MW-100A	MS02MW100A	MSD02MW100A
Date Collected	9/27/2007	9/27/2007	9/24/2007	9/24/2007	9/24/2007
Time Collected	10:59	15:05	14:50	14:50	14:50
Lab Code	TWW- 6749	TWW- 6750	TWW- 6751	TWW- 6752 ^a	TWW- 6753 ^a
Isotope	Concentration (pCi/L)				
H-3	394 ± 114	< 193	< 193	16321 ± 369	16925 ± 375
Mn-54	< 2.2	< 3.8	< 2.5	< 2.3	< 2.5
Fe-59	< 5.7	< 8.2	< 3.3	< 4.7	< 3.7
Co-58	< 1.9	< 3.2	< 2.3	< 2.3	< 2.5
Co-60	< 1.6	< 3.6	< 2.3	< 2.1	< 1.1
Zn-65	< 3.9	< 7.2	< 2.9	< 1.9	< 4.1
Zr-Nb-95	< 2.7	< 3.5	< 2.3	< 3.3	< 3.4
Cs-134	< 2.5	< 3.2	< 2.0	< 3.0	< 2.6
Cs-137	< 2.8	< 3.8	< 2.3	68.6 ± 7.6	70.2 ± 7.5
Ba-La-140	< 5.8	< 7.2	< 4.1	< 4.1	< 2.1

Sample Location	MW-101A	MW-101B	MW-101C	RINSEATE BLANK	MW-103C
Date Collected	10/2/2007	10/2/2007	10/2/2007	10/2/2007	10/2/2007
Time Collected	10:23	11:49	14:20	14:40	15:07
Lab Code	TWW- 6754	TWW- 6755	TWW- 6756	TWW- 6757	TWW- 6758
Isotope	Concentration (pCi/L)				
H-3	237 ± 89	207 ± 108	< 193	< 149	< 149
Mn-54	< 3.9	< 3.1	< 6.8	< 3.1	< 5.8
Fe-59	< 7.3	< 5.8	< 8.7	< 4.5	< 6.7
Co-58	< 5.5	< 2.4	< 4.3	< 2.8	< 4.2
Co-60	< 2.9	< 3.3	< 3.8	< 1.8	< 5.6
Zn-65	< 5.0	< 3.5	< 11.8	< 2.4	< 7.7
Zr-Nb-95	< 4.4	< 4.0	< 4.3	< 3.5	< 2.7
Cs-134	< 5.3	< 2.9	< 4.3	< 3.4	< 5.7
Cs-137	< 6.8	< 3.7	< 6.0	< 2.8	< 6.3
Ba-La-140	< 9.8	< 5.5	< 6.4	< 4.9	< 5.7

^a Known spike activ Cs-137, 65.6 pCi/L.
H-3, 17185 pCi/L.

The error given is the probable counting error at the 95% confidence level.
Less than (<), value is based on a 4.66 sigma counting error for the background sample.

Table 1. Results of analyses for tritium and gamma-emitting isotopes in fourteen ground water samples.

Sample Location	MW-100C	MW-100B	MW-102A	MW-102A	MW-103A
Date Collected	9/25/2007	9/25/2007	9/25/2007	9/25/2007	10/1/2007
Time Collected	11:06	0:00	15:21	15:21	10:31
Lab Code	TWW- 6759	TWW- 6760	TWW- 6761	TWW- 6762	TWW- 6763
Isotope	Concentration (pCi/L)				
H-3	< 149	< 193	344 ± 113	387 ± 114	495 ± 117
Mn-54	< 2.9	< 3.9	< 2.3	< 1.8	< 3.4
Fe-59	< 2.0	< 5.6	< 4.9	< 5.2	< 9.0
Co-58	< 3.3	< 3.9	< 3.1	< 2.1	< 6.6
Co-60	< 2.4	< 3.6	< 2.9	< 2.2	< 1.8
Zn-65	< 4.2	< 8.4	< 5.5	< 2.8	< 7.8
Zr-Nb-95	< 2.8	< 5.2	< 4.7	< 3.1	< 5.7
Cs-134	< 2.9	< 3.6	< 3.1	< 2.5	< 4.8
Cs-137	< 2.3	< 3.5	< 2.1	< 2.0	< 5.8
Ba-La-140	< 5.5	< 8.3	< 9.4	< 3.6	< 10.9

Sample Location	MW-103B	DBD-04	MW-104A	MW-104B	MW-104C
Date Collected	10/1/2007	10/1/2007	9/28/2007	9/28/2007	9/28/2007
Time Collected	12:30	12:00	10:07	11:42	14:42
Lab Code	TWW- 6764	TWW- 6765	TWW- 6766	TWW- 6767	TWW- 6768
Isotope	Concentration (pCi/L)				
H-3	362 ± 113	394 ± 95	237 ± 89	250 ± 89	< 193
Mn-54	< 3.3	< 4.5	< 1.6	< 2.4	< 2.5
Fe-59	< 5.8	< 7.7	< 5.0	< 6.4	< 6.6
Co-58	< 3.5	< 2.5	< 2.1	< 1.9	< 1.8
Co-60	< 3.5	< 3.6	< 2.6	< 2.1	< 1.4
Zn-65	< 4.9	< 4.4	< 3.1	< 2.0	< 3.8
Zr-Nb-95	< 5.0	< 4.9	< 3.8	< 2.8	< 3.5
Cs-134	< 4.8	< 5.4	< 2.9	< 3.2	< 3.3
Cs-137	< 3.8	< 4.8	< 3.3	< 2.6	< 3.6
Ba-La-140	< 8.2	< 8.6	< 6.6	< 4.4	< 2.5

The error given is the probable counting error at the 95% confidence level.

Less than (<), value is based on a 4.66 sigma counting error for the background sample.

Table 1. Results of analyses for tritium and gamma-emitting isotopes in fourteen ground water samples.

Sample Location	MW-35S	MW-35D
Date Collected	10/3/2007	10/3/2007
Time Collected	10:26	13:00
Lab Code	TWW- 6769	TWW- 6770
Isotope	Concentration (pCi/L)	
H-3	227 ± 88	368 ± 94
Mn-54	< 2.9	< 1.8
Fe-59	< 4.4	< 5.0
Co-58	< 3.7	< 2.2
Co-60	< 3.3	< 1.6
Zn-65	< 3.5	< 5.6
Zr-Nb-95	< 3.9	< 3.1
Cs-134	< 4.5	< 3.9
Cs-137	< 4.7	< 2.0
Ba-La-140	< 5.0	< 2.5

The error given is the probable counting error at the 95% confidence level.
Less than (<), value is based on a 4.66 sigma counting error for the background sample.

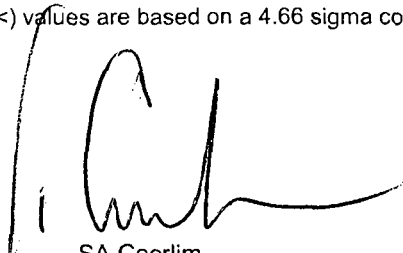


Mr. Al Percival
 FirstEnergy Corporation
 Mail Stop 1041
 5501 North State Route 2
 Oak Harbor, Ohio 43449

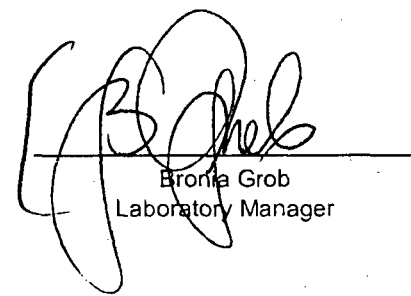
LABORATORY REPORT NO.: 8003-100-366
 DATE: 08-13-07
 SAMPLES RECEIVED: 08-08-07
 PURCHASE ORDER NO.:

Sample ID	Lab Code	Collection Date	H-3 (pCi/L)	LLD
MW-31S	TXW-5194	07/31/07	7322 ± 262	< 176
MW-31D	TXW-5195	07/31/07	108 ± 97	< 176
MW-32S	TXW-5196	07/31/07	7535 ± 265	< 176
MW-32D	TXW-5199	07/31/07	507 ± 113	< 176
MW-33S	TXW-5200	07/31/07	2702 ± 175	< 176
MW-33D	TXW-5201	07/31/07	3271 ± 178	< 173
MW-34S	TXW-5202	07/31/07	2839 ± 169	< 173
MW-34D	TXW-5203	07/31/07	1076 ± 126	< 173
MW-30S	TXW-5204	07/31/07	1149 ± 128	< 173
MW-30D	TXW-5205	07/31/07	231 ± 100	< 173
MW-37S	TXW-5206	07/31/07	2961 ± 171	< 173
MW-37D	TXW-5207	07/31/07	135 ± 96	< 173
MW-12S	TXW-5208	07/31/07	860 ± 120	< 173
MW-12D	TXW-5209	07/31/07	1155 ± 128	< 173
DBD-01	TXW-5197	07/31/07	7185 ± 260	< 176
DBD-01 (duplicate)	TXW-5198	07/31/07	7734 ± 268	< 176

The error given is the probable counting error at the 95% confidence level.
 Less than (<) values are based on a 4.66 sigma counting error for the background sample.



SA Coolim
 Quality Assurance



Bronia Grob
 Laboratory Manager



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ph. (847) 584-0700 • fax (847) 584-4517

Mr. Al Percival
FirstEnergy Corporation
Mail Stop 1041
5501 North State Route 2
Oak Harbor, Ohio 43449

LABORATORY REPORT NO.: 8003-100-371
DATE: 11-06-07
SAMPLES RECEIVED: 10-19-07
PURCHASE ORDER NO.:

Dear Mr. Percival

Enclosed are results of the analyses for tritium and gamma-emitting isotopes in twenty-one ground water samples.

Should you have any questions or other concerns, please do not hesitate to call.

Sincerely,

S.A. Coorlim,
Quality Assurance

Broria Grob, M. S.
Laboratory Manager

SAMPLES RETAINED THIRTY DAYS AFTER ANALYSIS

Table 1. Results of analyses for tritium and gamma-emitting isotopes in fourteen ground water samples.

Sample Location	MW-30D	MW-37S	MW-20S	DBD-02	MW-33S
Date Collected	10/9/2007	10/9/2007	10/9/2007	10/9/2007	10/5/2007
Time Collected	10:02	12:29	14:48	12:00	9:55
Lab Code	TWW- 7166	TWW- 7167	TWW- 7168	TWW- 7169	TWW- 7170
Isotope	Concentration (pCi/L)				
H-3	< 174	1231 ± 130	189 ± 94	218 ± 95	1110 ± 127
Mn-54	< 3.2	< 2.1	< 2.3	< 2.0	< 1.4
Fe-59	< 7.7	< 3.9	< 6.2	< 4.0	< 3.8
Co-58	< 3.4	< 1.8	< 3.0	< 1.9	< 2.1
Co-60	< 2.8	< 1.9	< 1.4	< 2.5	< 1.8
Zn-65	< 5.4	< 5.7	< 2.4	< 2.9	< 3.9
Zr-Nb-95	< 4.7	< 2.8	< 2.2	< 4.1	< 3.2
Cs-134	< 2.3	< 2.3	< 2.8	< 2.1	< 2.0
Cs-137	< 2.1	< 2.0	< 3.9	< 2.9	< 2.4
Ba-La-140	< 6.5	< 3.2	< 2.6	< 4.0	< 6.7

Sample Location	MW-33S	MW-33D	MW-31S	DBD-03	MW-20D
Date Collected	10/5/2007	10/5/2007	10/5/2007	10/5/2007	10/10/2007
Time Collected	9:55	11:33	14:10	12:00	10:35
Lab Code	TWW- 7171	TWW- 7172	TWW- 7173	TWW- 7174	TWW- 7175
Isotope	Concentration (pCi/L)				
H-3	1230 ± 130	1934 ± 150	3149 ± 178	3012 ± 175	< 174
Mn-54	< 1.5	< 1.4	< 1.0	< 1.2	< 1.8
Fe-59	< 4.5	< 3.4	< 2.4	< 5.0	< 5.1
Co-58	< 2.7	< 1.2	< 1.7	< 1.6	< 2.1
Co-60	< 2.2	< 1.6	< 1.4	< 1.3	< 1.5
Zn-65	< 3.3	< 1.7	< 3.0	< 2.5	< 4.0
Zr-Nb-95	< 4.2	< 2.2	< 2.2	< 3.0	< 2.6
Cs-134	< 2.6	< 1.3	< 1.4	< 1.9	< 2.5
Cs-137	< 2.6	< 1.3	< 1.6	< 1.9	< 3.0
Ba-La-140	< 9.4	< 5.1	< 2.6	< 5.1	< 6.1

The error given is the probable counting error at the 95% confidence level.
Less than (<), value is based on a 4.66 sigma counting error for the background sample.

Table 1. Results of analyses for tritium and gamma-emitting isotopes in fourteen ground water samples.

Sample Location	MW-23S	MW-15S	MW-15D	MW-12S	MW-12D
Date Collected	10/10/2007	10/10/2007	10/7/2007	10/4/2007	10/4/2007
Time Collected	12:50	14:12	16:52	10:48	13:38
Lab Code	TWW- 7176	TWW- 7177	TWW- 7178	TWW- 7179	TWW- 7180
Isotope	Concentration (pCi/L)				
H-3	306 ± 99	301 ± 99	442 ± 104	276 ± 98	738 ± 115
Mn-54	< 2.4	< 3.2	< 2.8	< 2.1	< 2.3
Fe-59	< 3.8	< 6.6	< 5.9	< 2.7	< 3.8
Co-58	< 1.6	< 3.2	< 3.5	< 1.8	< 1.0
Co-60	< 2.2	< 3.0	< 2.5	< 2.1	< 1.5
Zn-65	< 3.4	< 2.2	< 3.9	< 2.4	< 2.9
Zr-Nb-95	< 3.9	< 5.0	< 2.2	< 2.5	< 3.3
Cs-134	< 2.3	< 2.6	< 2.7	< 2.0	< 1.9
Cs-137	< 2.9	< 3.5	< 2.6	< 2.5	< 2.0
Ba-La-140	< 5.1	< 7.6	< 7.8	< 6.2	< 5.4

Sample Location	DBD-01	MW-31D	MW-105A	MW-30S	MS01-MW-30S
Date Collected	10/4/2007	10/8/2007	10/8/2007	10/8/2007	10/8/2007
Time Collected	12:00	9:47	12:41	15:25	15:25
Lab Code	TWW- 7181	TWW- 7182	TWW- 7183	TWW- 7184	TWW- 7185 ^a
Isotope	Concentration (pCi/L)				
H-3	769 ± 116	183 ± 94	1832 ± 147	494 ± 106	26895 ± 467
Mn-54	< 1.1	< 3.3	< 4.8	< 4.0	< 2.7
Fe-59	< 3.9	< 8.6	< 5.9	< 5.7	< 5.4
Co-58	< 2.2	< 5.2	< 3.3	< 2.0	< 2.2
Co-60	< 1.4	< 5.3	< 3.8	< 1.8	< 2.8
Zn-65	< 2.1	< 7.1	< 5.0	< 1.9	< 4.3
Zr-Nb-95	< 2.3	< 5.1	< 4.0	< 4.1	< 4.1
Cs-134	< 1.4	< 4.2	< 1.8	< 3.8	< 3.4
Cs-137	< 2.0	< 3.8	< 5.0	< 2.8	109.1 ± 9.7
Ba-La-140	< 2.8	< 12.7	< 14.4	< 4.9	< 3.6

^a Known spike activ Cs-137, 98.4 pCi/L.

H-3, 27,496 pCi/L.

The error given is the probable counting error at the 95% confidence level.

Less than (<), value is based on a 4.66 sigma counting error for the background sample.

Table 1. Results of analyses for tritium and gamma-emitting isotopes in fourteen ground water samples.

Sample Location	MSD01-MW-30S
Date Collected	10/8/2007
Time Collected	12:00
Lab Code	TWW- 7186 ^a
Isotope	Concentration (pCi/L)

H-3	26895 ± 467
Mn-54	< 3.7
Fe-59	< 2.5
Co-58	< 2.5
Co-60	< 3.0
Zn-65	< 5.1
Zr-Nb-95	< 1.9
Cs-134	< 2.9
Cs-137	108.4 ± 8.6
Ba-La-140	< 2.2

The error given is the probable counting error at the 95% confidence level.
Less than (<), value is based on a 4.66 sigma counting error for the background sample.