

May 20, 2009

Mr. Jeremy Tapp  
U.S. Nuclear Regulatory Commission  
Region III  
2443 Warrenville Road  
Lisle, IL 60532-4351

**SUBJECT:      ORISE CONTRACT NO. DE-AC05-06OR23100**  
**LETTER REPORT FOR ANALYTICAL RESULTS FOR FIVE**  
**GRAVEL/SOIL SAMPLES FROM INDIANA MICHIGAN ELECTRIC**  
**POWER – DC COOK, BRIDGMAN, MICHIGAN**  
**[07200072/2009002] (RFTA NO. 09-002)**  
**DCN: 1795-LR-01-0**

Dear Mr. Tapp:

The Oak Ridge Institute for Science and Education (ORISE) received five gravel/soil samples on May 7, 2009 from Indiana Michigan Electric Power – DC Cook in Bridgman, Michigan. The samples were analyzed according to the 303 form submitted with the samples. The sample identification numbers are presented in Table 1. The gamma spectroscopy results are presented in Table 2. The pertinent procedure references are included with the data tables.

ORISE's Quality Control (QC) requirements were met for these analyses. The QC files are available for your review upon request.

My contact information is listed below. You may also contact Wade Ivey at 865.576.9184 with any questions or comments.

Sincerely,

  
Dale Condra, Manager  
Laboratory

RDC:WPI:bf

Enclosures

c:      T. Carter, NRC/FSME/DWMEP T-8F5                      E. Abelquist, ORISE  
         T. Patterson, NRC/FSME/TWFN 8D42                  T. Vitkus, ORISE  
         File 1795

Distribution approval and concurrence :	Initials
Technical Review	TCP
Quality Review	CITP

**TABLE 1**

**SAMPLE IDENTIFICATIONS  
AND COLLECTION DATA  
INDIANA MICHIGAN ELECTRIC POWER - DC COOK  
BRIDGMAN, MICHIGAN**

<b>ORISE Sample ID</b>	<b>NRC Region III Sample ID</b>	<b>Collection Date</b>	<b>Collection Time</b>
1795S0001	DCC-09-1-01	5/5/2009	9:05 AM
1795S0002	DCC-09-1-02	5/5/2009	11:00 AM
1795S0003	DCC-09-1-03	5/5/2009	1:40 PM
1795S0004	DCC-09-1-04	5/5/2009	2:00 PM
1795S0005	DCC-09-1-05	5/4/2009	5:00 PM

TABLE 2

CONCENTRATIONS OF SELECTED  
 GAMMA EMITTING RADIONUCLIDES  
 IN GRAVEL/SOIL SAMPLES  
 BY GAMMA SPECTROSCOPY CP1, REVISION 16  
 INDIANA MICHIGAN ELECTRIC POWER - DC COOK  
 BRIDGMAN, MICHIGAN

ORISE Sample ID	NRC Region III Sample ID	Radionuclide Concentrations, TPUs, and MDCs <sup>a</sup> (pCi/g)	
		Co-60	Cs-137
1795S0001	DCC-09-1-01	0.01 ± 0.02 <sup>b</sup> , 0.03	0.01 ± 0.01, 0.03
1795S0002	DCC-09-1-02	0.01 ± 0.02, 0.04	0.01 ± 0.02, 0.03
1795S0003	DCC-09-1-03	-0.01 ± 0.02, 0.03	0.01 ± 0.01, 0.02
1795S0004	DCC-09-1-04	-0.01 ± 0.03, 0.05	0.02 ± 0.01, 0.02
1795S0005	DCC-09-1-05	0.00 <sup>c</sup> ± 0.02, 0.03	0.01 ± 0.01, 0.02

<sup>a</sup>The MDCs are after the comma.

<sup>b</sup>Uncertainties represent the 95% confidence level, based on total propagated uncertainties.

<sup>c</sup>Zero values are due to rounding.