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OAK RIDGE INSTITUTE FOR SCIENCE AND EDUCATION

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DNMS

November 8, 2006

Mr. Robert Evans
U.S. Nuclear Regulatory Commission
Region IV: DNMS: NMLB
Suite 400
611 Ryan Plaza Drive
Arlington, TX 76011

SUBJECT: ANALYTICAL RESULTS FOR THREE SOIL AND THREE WATER SAMPLES ASSOCIATED WITH THE SAN ONOFRE NUCLEAR GENERATING STATION, SAN CLEMENTE, CALIFORNIA (INSPECTION REPORT # 050-00206/06-015) [RFTA NO. 06-001]

Dear Mr. Evans:

The Oak Ridge Institute for Science and Education (ORISE) received three soil and three water samples associated with the San Onofre Nuclear Generating Station in San Clemente, California on October 13, 2006. At your request, the soil and water samples were analyzed by gamma spectroscopy (GS). The water samples were also analyzed for tritium. The sample identifications are listed in Table 1. The GS and tritium data are presented in Tables 2 and 3, respectively. The pertinent procedure references are provided in the 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:ar

Enclosures

c: B. Watson, NMSS/DWMEP/DD/SP 7E18 E. Abelquist, ORISE
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TABLE 1

SAMPLE IDENTIFICATIONS
AND COLLECTION DATA
SAN ONOFRE NUCLEAR GENERATING STATION
SAN CLEMENTE, CALIFORNIA

ORISE Sample ID	NRC Region IV Sample ID	Collection Date	Collection Time
1724S0001	soil 1	10/11/2006	4:25 PM
1724S0002	soil 2	10/11/2006	4:30 PM
1724S0003	soil 3	10/11/2006	4:40 PM
1724W0001	water 1	10/11/2006	9:09 AM
1724W0002	water 2	10/11/2006	9:30 AM
1724W0003	water 3	10/11/2006	9:51 AM

TABLE 2
 CONCENTRATIONS OF SELECTED
 GAMMA EMITTING RADIONUCLIDES
 IN SOIL AND WATER SAMPLES
 BY GAMMA SPECTROSCOPY CP1, REVISION 15
 SAN ONOFRE NUCLEAR GENERATING STATION
 SAN CLEMENTE, CALIFORNIA

ORISE Sample ID	NRC Region IV Sample ID	Radionuclide Concentrations, TPUs, and MDCs ^{a,b} (pCi/g or pCi/L)	
		Co-60	Cs-137
1724S0001	soil 1	-0.01 ± 0.03 ^c	0.02 ± 0.03
1724S0002	soil 2	0.31 ± 0.05	11.09 ± 0.36
1724S0003	soil 3	0.01 ± 0.03	0.73 ± 0.06
1724W0001	water 1	0.5 ± 3.7	1.7 ± 4.9
1724W0002	water 2	-0.9 ± 2.4	-0.7 ± 2.4
1724W0003	water 3	1.0 ± 1.9	3.2 ± 2.8

Pump 6
 Pump 5
 Pump 4

^aThe range of MDCs for the selected radionuclides in the soil samples is 0.03 pCi/g to 0.05 pCi/g.

^bThe range of MDCs for the selected radionuclides in the water samples is 3.2 pCi/L to 4.1 pCi/L.

^cUncertainties represent the 95% confidence level, based on total propagated uncertainties.

TABLE 3

CONCENTRATION OF TRITIUM
 IN WATER SAMPLES
 BY LIQUID SCINTILLATION ANALYSIS
 AP2, REVISION 15; CP4, REVISION 3
 SAN ONOFRE NUCLEAR GENERATING STATION
 SAN CLEMENTE, CALIFORNIA

ORISE Sample ID	NRC Region IV Sample ID	Tritium Concentrations, TPUs, and MDCs ^a (pCi/L)
1724W0001	water 1	740 ± 130 ^b (190)
1724W0002	water 2	21,750 ± 810 (190)
1724W0003	water 3	80 ± 110 (190)

Pump 6
 Pump 5
 Pump 4

^aThe MDCs are in parentheses.

^bUncertainties represent the 95% confidence level, based on total propagated uncertainties.