

November 8, 2012

Docket 050-00133 License DPR-7

Mr. Gerald Schlapper U.S. Nuclear Regulatory Commission, Region IV 1600 East Lamar Boulevard Arlington, TX 76011

ORISE CONTRACT NO. DE-AC05-06OR23100

SUBJECT:

LETTER REPORT FOR ANALYTICAL RESULTS FOR FIVE

MISCELLANEOUS SAMPLES ASSOCIATED WITH THE HUMBOLDT BAY

POWER PLANT IN EUREKA, CALIFORNIA

[INSPECTION REPORT NO. 05000133/2012011] (RFTA NO. 12-001)

DCN: 5201-LR-02-0

Dear Mr. Schlapper:

Oak Ridge Associated Universities (ORAU), under the Oak Ridge Institute for Science and Education (ORISE) contract, received five miscellaneous samples on October 4, 2012 from the Humboldt Bay Power Plant in Eureka, California. The samples were split samples and were received directly from the Humboldt Bay laboratory. There was no NRC Form 303 or Form 303A supplied with the samples. The chain of custody (COC) form that accompanied the samples listed sample identifications that differed from the sample identifications on the sample containers. Per your request, the sample identifications included in this letter report are taken from the COC and not the sample containers. The samples were analyzed for gamma emitting radionuclides by gamma spectroscopy. The sample identification numbers are presented in Table 1 and the gamma spectroscopy data are presented in Table 2. The pertinent procedure reference is included with the data table.

ORAU'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 Forrest Smith at 865.574.9802 with any questions or comments.

Sincerely,

Wade Ivey, Manager

Laboratory WPI:WFS:km

Enclosures

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## TABLE 1

## SAMPLE IDENTIFICATIONS AND COLLECTION INFORMATION HUMBOLDT BAY POWER PLANT EUREKA, CALIFORNIA

ORISE Sample ID	NRC Region IV Sample ID	Collection Date	Collection Time
5201M0001	TBN01-CB-019	9/24/2012	9:35 AM
5201M0002	TBN01-CB-026	9/24/2012	3:40 PM
5201M0003	TBN01-CB-025	9/25/2012	11:10 AM
5201M0004	TBN01-CB-027	9/25/2012	1:45 PM
5201M0005	TBN01-CB-009	9/26/2012	9:15 AM

Humboldt Bay Power Plant 5201-I.R-02-0

## TABLE 2

## CONCENTRATIONS OF SELECTED GAMMA EMITTING RADIONUCLIDES IN MISCELLANEOUS SAMPLES BY GAMMA SPECTROSCOPY CP1, REVISION 17 HUMBOLDT BAY POWER PLANT EUREKA, CALIFORNIA

ORISE Sample	Z		Radion	uclide Concentrations,	Radionuclide Concentrations, TPUs <sup>a</sup> , and MDCs <sup>b</sup> (pCi/g)	Gi/g)	
A	Sample ID	Co-60	Cs-137	K-40	Th-232 by Ac-228 U-238 by Th-234	U-238 by Th-234	U-235
5201M0001	TBN01-CB-019	$0.03 \pm 0.01$ , $0.03 \pm 0.03$	l .	$5.54 \pm 0.58$ , $0.37$	$\pm$ 0.33 , 0.06 5.54 $\pm$ 0.58 , 0.37 0.31 $\pm$ 0.07 , 0.09 0.48 $\pm$ 0.26 , 0.59 0.03 $\pm$ 0.06 , 0.15	$0.48 \pm 0.26$ , $0.59$	$0.03 \pm 0.06$ , 0.15
5201M0002	TBN01-CB-026	$1.18 \pm 0.09$ , 0.05 1.14	1	$5.80 \pm 0.57$ , 0.40	$\pm$ 0.13 , 0.03 5.80 $\pm$ 0.57 , 0.40 0.46 $\pm$ 0.10 , 0.14 0.30 $\pm$ 0.24 , 0.57 0.07 $\pm$ 0.07 , 0.15	$0.30 \pm 0.24$ , $0.57$	$0.07 \pm 0.07$ , 0.15
5201M0003	TBN01-CB-025	4.49 ± 0.29 , 0.10 9.33		$6.29 \pm 0.66$ , 0.46	$\pm$ 0.61 , 0.09 6.29 $\pm$ 0.66 , 0.46 0.41 $\pm$ 0.13 , 0.25 $\pm$ 0.26 $\pm$ 0.37 , 0.89 -0.02 $\pm$ 0.18 , 0.33	$0.26 \pm 0.37$ , $0.89$	$-0.02 \pm 0.18$ , 0.33
5201M0004	TBN01-CB-027	$0.00^{\circ} \pm 0.02$ , 0.04 0.01		5.80 ± 0.53 , 0.31	$\pm$ 0.02 , 0.03 5.80 $\pm$ 0.53 , 0.31 0.32 $\pm$ 0.06 , 0.08 0.50 $\pm$ 0.17 , 0.36 0.03 $\pm$ 0.10 , 0.17	$0.50 \pm 0.17$ , $0.36$	$0.03 \pm 0.10$ , $0.17$
5201M0005	TBN01-CB-009	$0.39 \pm 0.04$ , $0.03 2.28$	ı	$5.36 \pm 0.51$ , $0.31$	$\pm$ 0.24 , 0.03 5.36 $\pm$ 0.51 , 0.31 0.23 $\pm$ 0.06 , 0.08 0.56 $\pm$ 0.18 , 0.39 0.05 $\pm$ 0.06 , 0.13	$0.56 \pm 0.18$ , $0.39$	$0.05 \pm 0.06$ , $0.13$

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

<sup>&</sup>lt;sup>b</sup>MDCs are after the commas.

<sup>&</sup>lt;sup>c</sup>Zero value is due to rounding or sample and background count rates being equal.