

Stan A. Huber Consultants, Inc.

Health Physics and Radiation Safety Services

200 North Cedar Road - New Lenox, Illinois 60451-1751 - (800) 383-0468 or (815) 485-6161 - FAX (815) 485-4433 - Email sahci@sahci.com - Home Page www.sahci.com

May 15, 2014

Roy Franceschina Western Utility Contractors, Inc. 2565 Palmer Ave. University Park, IL 60466

RE: 440 E. Ohio Street Thorium Monitoring

Dear Mr. Franceschina:

Stan A. Huber Consultants, Inc (SAHCI) was hired by your firm to provide radiation monitoring during the repair of a utility manhole at 440 E. Ohio St. in Chicago, Illinois. The monitoring was performed on May 13, 2014.

<u>Instrumentation</u>

Surface gamma scans were performed by Joel Ahrweiler using a Ludlum Model 2221 Scaler / Ratemeter with attached 2"x2" Nal probe. The instrument was calibrated on October 18, 2013. The USEPA action level of 7.1 picocuries per gram (pCi/g) total thorium for this instrument is 18,643 counts per minute (cpm).

The average background count rate for this location was found to be between 5,400 cpm and 6,200 cpm.

Soil Gamma Scans

Gamma surface scans were performed using the Ludlum Model 2221 Scaler / Ratemeter described above. Data was collected by scanning all the concrete asphalt and soil that was removed from the excavation area for each 18-inch lift and recording the highest count rate for the material from a maximum excavation depth of 18 inches. No concrete, asphalt, or soil was stockpiled during the project and all excavated materials were loaded directly into the truck after screening.

The maximum gamma count rates for each 1.5-foot lift are detailed on the attached Radiation Survey Form. The count rates in the excavation ranged from 5,700 cpm to 5,800 cpm. No count rates were found at any time that exceeded the threshold limit of 18,643 cpm.

Additional Monitoring

Since no count rates were identified above the 7.1 pCi/gram threshold limit, no additional soil sampling, air monitoring, or personnel monitoring were performed.

You will need to forward a copy of this report to the City of Chicago Department of Public Health (Attn: Rahmatunsia Begum) with the CDOT Permit Number in the subject line. I will be providing a copy of this report to USEPA, as required.

Thank you for your assistance with this project. If you have any questions or need additional information please call me at (815) 485-6161.

Sincerely,

Stan A. Huber Consultants, Inc.

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Glenn Huber, CHP

President

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Radiation Survey Form

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Loca	tion/ Project ID:	Western Utilit	140 E.	OHIO St.				
Date			Technician: Joe					
inst i	Model: 2221		Serial No. :	127242				
Prob		Mor Stillerded		Max Depth	-1.5 foot	doep		
Backç	ground <u>5.4 - 6.2</u>	Kcpm	Action Level: 186	<u>943</u> _cpm				
Write grid designations in circles. Record highest counts for grid in cpm. Record 30 second counts at grid intersections (if required). Shade areas of elevated counts and record max cpm.								
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		Drive way 51de	Malk 4'					
curb —	OHI	o St	(-5→ 1/2 (-5→ 1/2 ↑ ↑ ↑ ↑ ↑ ↑ ↑ ↑ ↑ ↑ ↑ ↑ ↑ ↑ ↑ ↑ ↑ ↑ ↑	s) 5.8k -1.5) 5.7k	epm			
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