

# 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

October 22, 2016

Bill Zebrauskas Western Utility Contractors, Inc. 2565 Palmer Ave. University Park, IL 60466

RE: 220 E. Illinois St. Thorium Monitoring

DOT Permit No. 713460

Dear Mr. Zebrauskas:

Stan A. Huber Consultants, Inc (SAHCI) was hired by your firm to provide radiation monitoring during excavation for a utility installation project at 220 E. Illinois St. in Chicago, Illinois. The monitoring was performed by Brian Schmidt on October 20, 2016 and Glenn Huber on October 21, 2016.

#### Instrumentation

Surface gamma scans were performed using a Ludlum Model 2221 Scaled / Ratemeter (serial no. 134542) with attached 2"x2" Nal probe (w/ 6" lead shield). The instrument was calibrated on August 8, 2016. The USEPA action level of 7.1 picocuries per gram (pCi/q) total thorium for this instrument is 6,338 counts per minute (cpm).

The average background count rate for this location was found to be 2,300 cpm.

### Soil Gamma Scans

Gamma surface scans were performed using the Ludlum Model 2221 Scaler / Ratemeter described above. Survey data was collected by entering the excavation after each 18 inch lift and recording the highest count rate for the floors and walls to an excavation depth of 4 feet. Material excavated from 4 feet to 6 feet deep was surveyed in the excavator bucket prior to loading. All soil was loaded directly into a truck for disposal.

The maximum gamma count rate for each lift was recorded on the attached Radiation Survey Form. The count rates in the excavation ranged from 1,600 cpm to 4,000 cpm. No count rates were found at any time that exceeded the threshold limit of 6,338 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.

# Regulatory Notification of Survey Completion

I will be providing a copy of this report to both the City of Chicago Department of Public Health and US Environmental Protection Agency, 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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Background		Probe Type: 1"x1" Nal /2"x2" Nal Shielded / Not Shielded			,			
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.  Note that the second second counts are grid in cpm. Record 30 second counts at grid intersections (if required). Shade areas of elevated counts and record max cpm.  Note that the second second counts are grid in cpm. Record 30 second counts at grid in cpm. R								
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