



June 30, 2016

Mike Lanenga
SET Environmental
450 Sumac Road
Wheeling, IL 60090

RE: 30 S. Lake Shore Drive Thorium Monitoring – City of Chicago Department of Water Management

Dear Mr. Lanenga:

Stan A. Huber Consultants, Inc. (SAHCI) was hired by your firm to provide radiation monitoring during the excavation and replacement of a City of Chicago Department of Water Management fire hydrant at 30 S. Lake Shore Drive in Chicago, Illinois. The monitoring was performed on June 27, 2016. All activities were conducted under the guidance of document *SET General Guidance for Thorium Monitoring*.

Instrumentation

Surface gamma scans were performed by Brian Schmidt using a Ludlum Model 2221 Scaled / Ratemeter (serial no. 126496) with attached 2"x2" NaI probe with 6" lead shield. The instrument was calibrated on October 15, 2015. The USEPA action level of 7.1 picocuries per gram (pCi/g) total thorium for this instrument is 7,054 counts per minute (cpm).

The average background count rate for this location was determined to be 3,041 cpm.

Soil Gamma Scans

Surface gamma scans were performed using the Ludlum Model 2221 Scaler / Ratemeter described above. Data was collected by monitoring the soil as it was excavated and recording the highest count rate to the maximum excavation depth of 7 feet below ground surface. Excavated material was loaded directly into a truck and was not stockpiled onsite.

The maximum gamma count rate for each lift was recorded on the attached Radiation Survey Form. The count rates in the excavation ranged from 2,300 cpm to 4,000 cpm. No count rates were found at any time that exceeded the threshold limit of 7,054 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. Additionally, a copy of this report should be submitted 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.

A handwritten signature in black ink, appearing to read 'G. Huber', with a long horizontal flourish extending to the right.

Glenn Huber, CHP
President

Radiation Survey Form

Location/ Project ID: 30 S. LAKE SHORE DRIVE - CHICAGO, IL - FIRE HYDRANT REPLACEMENT - DWN

Date: 6/27/16 Technician: BRIAN SCHMIDT

Inst Model: LVOLUM-2221 Serial No.: 126496

Probe Type: 1"x1" NaI / 2"x2" NaI / Shielded / Not Shielded Lift Elevation: 0-80" bgs

Background 3041 cpm Action Level: 7054 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.

