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June 3, 2014

Mr. Dan Martinez  
Project Manager, Lakefront Trail Improvement  
F.H. Paschen  
5515 N. East River Road  
Chicago, IL 60656

RE: Bi-weekly Letter Report Update #3  
Lakefront Trail Improvement, Chicago, IL  
AECOM Project No. 60318016

Dear Mr. Martinez:

Pursuant to conditions specified in permits issued by the City of Chicago, radiation monitoring was required to be performed for the above referenced project. AECOM Technical Services, Inc. (AECOM) provided the required radiation surveillance. The last Updated Letter was issued on May 15, 2014 and summarized the surveying of excavation work performed between May 1 and 14, 2014. This update letter provides a summary of the radiological surveying performed between May 19 and 30, 2014.

Gamma radiation count measurements were made using Ludlum Model 2221 survey meter and an unshielded 2 x 2 inch NaI probe (Model 44-10). The U. S. Environmental Protection Agency (USEPA) cleanup value for Chicago's Streeterville area is 7.1 picocuries per gram (pCi/g) total radium (Ra-226 + Ra-228). The field meter gamma count equivalent to 7.1 pCi/g was 19,598 counts per minute (cpm) unshielded. Monitoring between May 19 and 30, 2014 revealed no gamma readings indicative of contaminated fill soil above the clean-up value established by the USEPA for the Streeterville area of Chicago.

#### **Abutment Pad**

On May 19, 2014 excavation of the abutment pad was performed just north of the viaduct entrance in Jane Addams Park. For the instrument used, the gamma count threshold indicative of the 7.1 pCi/g cleanup value is 19,958 (cpm) unshielded. The field gamma background for the area is approximately 4,766 cpm unshielded. The field gamma measurements within the excavation and for the spoil materials generated during the excavation process did not exceed the instrument threshold previously stated. A maximum reading of 8,000 cpm unshielded was recorded for this excavation. Thus, there was no indication of the presence of radiologically-contaminated material and/or an exceedance of the USEPA cleanup value of 7.1 pCi/g total radium.

#### **South Stairs Footing**

On May 21, 2014 an approximate 16-foot by 16-foot excavation was performed for the South Stairs Footing. The excavation was extended to approximately four foot below grade. For the instrument used, the gamma count threshold indicative of the 7.1 pCi/g cleanup value is 19,958 (cpm) unshielded. The field gamma background for the area is approximately 4,766 cpm unshielded. The field gamma measurements within the excavation and the spoil materials generated during the excavation process did not exceed the respective instrument threshold. A maximum reading of 16,500 cpm unshielded was recorded for this excavation. Thus, there was no indication of the presence of radiologically-contaminated material and/or an exceedance of the USEPA cleanup value of 7.1 pCi/g total radium.

### **South Stairs Piers 2 & 3**

On May 21, 2014 two approximate 14-foot by 14-foot excavation was performed for the South Stairs Pier 2 & 3. The excavations were extended to approximately four foot below grade. For the instrument used, the gamma count threshold indicative of the 7.1 pCi/g cleanup value is 19,958 (cpm) unshielded. The field gamma background for the area is approximately 4,766 cpm unshielded. The field gamma measurements within the excavation and the spoil materials generated during the excavation process did not exceed the respective instrument threshold. Maximum readings of 13,900 and 16,500 cpm unshielded were recorded for these excavations. Thus, there was no indication of the presence of radiologically-contaminated material and/or an exceedance of the USEPA cleanup value of 7.1 pCi/g total radium.

### **South Stairs Pier 1**

On May 22, 2014 an approximate 14-foot by 14-foot excavation was performed for the South Stairs Pier 1 located in Jane Addams Park. The excavation was extended to approximately four foot below grade. For the instrument used, the gamma count threshold indicative of the 7.1 pCi/g cleanup value is 19,958 (cpm) unshielded. The field gamma background for the area is approximately 4,766 cpm unshielded. The field gamma measurements within the excavation and the spoil materials generated during the excavation process did not exceed the instrument threshold. A maximum reading of 16,000 cpm unshielded was recorded for this excavation. Thus, there was no indication of the presence of radiologically-contaminated material and/or an exceedance of the USEPA cleanup value of 7.1 pCi/g total radium.

### **Bike Path and Walking Trail**

On May 5, 2014 surveying was performed for the soil removed from an excavation for the Bike Trail Pad that extends south from the sidewalk that runs beneath the viaduct under Lake Shore Drive on Jane Addams Park. A small 15 ft<sup>2</sup> area with a maximum gamma reading of 22,000 cpm was observed adjacent to the northern excavation wall. A sample was collected and submitted to RSSI in Morton Grove for gamma spectroscopy analysis, which did not indicate the presence of total radium activities that would be consistent with Lindsay Light material. Instead, the results suggested that potassium-40 was the source of the gamma readings. On Friday May 16, 2014, with USEPA approval, the original area within the bike trail excavation, and a section of the sidewalk, were excavated and screened in thin lifts. The maximum gamma readings observed on May 16, 2014 were approximately 18,000 cpm unshielded. Therefore, screening did not reveal gamma readings that exceeded the 19,958 cpm (unshielded) instrument threshold equivalent to the USEPA cleanup value of 7.1 pCi/g.

On May 23, 2014 the southern half of the Bike Path on Jane Addams Park was excavated. For the instrument used, the gamma count threshold indicative of the 7.1 pCi/g cleanup value is 19,958 (cpm) unshielded. The field gamma background for the area is approximately 4,766 cpm unshielded. The field gamma measurements within the excavation and the spoil materials generated during the excavation process did not exceed the respective instrument threshold previously stated and ranged from a minimum of 14,000 cpm to a maximum of 16,000 cpm unshielded. Thus, there was no indication of the presence of radiologically-contaminated material and/or an exceedance of the USEPA cleanup value of 7.1 pCi/g total radium.

On May 28 and 29, 2014 Bent 4 located south of Illinois Street was excavated. This excavation was approximately 14 feet by 14 feet by 4 feet deep. For the instrument used, the gamma count threshold indicative of the 7.1 pCi/g cleanup value is 19,958 (cpm) unshielded. The field gamma background for the area is approximately 4,766 cpm unshielded. The field gamma measurements within the excavation and the spoil materials generated during the excavation process did not exceed the respective instrument threshold previously stated. A maximum reading of 12,500 cpm unshielded was recorded during the excavation. Thus, there was no indication of the presence of radiologically-contaminated material and/or an exceedance of the USEPA cleanup value of 7.1 pCi/g total radium.

### **North Stairs Landing**

This excavation was performed on May 27, 2014. The excavation was approximately 8 feet by 14 feet by 4 feet deep. For the instrument used, the gamma count threshold indicative of the 7.1 pCi/g cleanup value is 19,958 (cpm) unshielded. The field gamma background for the area is approximately 4,766 cpm unshielded. A maximum reading of 13,900 cpm unshielded was recorded during the excavation of the final lift. Thus, there was no indication of the presence of radiologically-contaminated material and/or an exceedance of the USEPA cleanup value of 7.1 pCi/g total radium.

### **South Stair Landing**

On May 30, 2014 stair landing located south of Illinois Street was excavated. For the instrument used, the gamma count threshold indicative of the 7.1 pCi/g cleanup value is 19,958 (cpm) unshielded. The field gamma background for the area is approximately 4,766 cpm unshielded. The field gamma measurements within the excavation and the spoil materials generated during the excavation process did not exceed the instrument threshold. A maximum reading of 7,800 cpm unshielded was recorded during the excavation. Thus, there was no indication of the presence of radiologically-contaminated material and/or an exceedance of the USEPA cleanup value of 7.1 pCi/g total radium.

Please contact us with any questions you have regarding this letter or the reported results.

Regards,



Steve T. Newlin  
Senior Project Geologist



Steven C. Kornder, Ph.D.  
Senior Project Geoscientist

cc: Chris Tryka, F.H. Paschen

Attachments: Location Map

## LOCATION MAP

