

AECOM 303 E. Wacker Drive, Suite 900 Chicago, Illinois 60601 312-938-0300 tel 312-938-1109 fax

October 28, 2013

Mr. John Doherty Ewing-Doherty Mechanical, Inc. 304 North York Road Bensenville, IL 60106

RE: Radiological Survey of Right-of-Way Utility Excavation Permit No.: 354480750 Permit Address: 332 East North Water Street AECOM Project No. 60241812

Dear Mr. Doherty:

Pursuant to conditions specified in a permit (see attached) issued by the City of Chicago, radiation monitoring was required to be performed at the above referenced site. AECOM Technical Services, Inc. (AECOM) provided the required radiation monitoring between the days of October 8 and 11, 2013 for trench excavations to install the water service to new construction (i.e., 455 N. Park).

Surveying was conducted in 18-inch lifts for soils removed from a 4-foot wide by approximately 80-foot long trench excavation to a maximum depth of about 5-feet below the pavement/ground surface in the Rights-of-Way (ROW) of East North Water Street (see attached sketch). The gamma survey monitoring revealed no indication of soils above the cleanup value established by the U.S. Environmental Protection Agency (USEPA) for the Streeterville area of Chicago. The USEPA cleanup value for Chicago's Streeterville area is 7.1 picocuries per gram (pCi/g) total radium (Ra-226 + Ra-228).

Gamma radiation measurements for the project were made using a Ludlum Model 2221 survey meter and an unshielded 2 x 2 inch sodium iodide (Nal) probe Model 44-10. For the field instrument used, the gamma count equivalent to the USEPA 7.1 pCi/g cleanup value was 18,701 counts per minute (cpm) unshielded. Thus, gamma readings above 18,701 cpm threshold would be considered a potential indication of the presence of radiologically contaminated fill soil.

The field gamma background for the area was measured at approximately 7,900 cpm unshielded. In general, field gamma measurements greater than twice background represent potential anomalous results that require more cautious field screening, but are not necessarily indications of the presence of thorium contaminated fill soil.

The excavation spoil was urban fill with slag and cinders. The field gamma measurements within the excavation and of the spoil materials generated during the excavation process did not exceed the threshold value equivalent to the USEPA cleanup value previously stated and ranged from a minimum of 5,000 cpm to a maximum of 15,000 cpm unshielded. The majority of the gamma readings were less than 10,000 cpm, but the highest values (between 14,000 and 15,000 cpm) were observed at the base of the trench (i.e., maximum/final depth) while utilizing an unshielded probe. It is believe these readings were biased high because of depth of the trench and the use of an unshielded probe. In any case, there was no indication of the presence of radiologically-contaminated fill soil and/or an exceedance of the USEPA cleanup value of 7.1 pCi/g total radium.

As part of the permit conditions this letter has been forwarded to:

Radiological Survey of Right-of-Way Utility Excavation Permit No.: 354480750 Page 2

> Chicago Department of Public Health Attention: Ms. Rahmat Begum 333 South State Street, Room 200 Chicago, Illinois 60604

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

Regards,

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

Brian R. Schmidt Project Scientist II

cc: Rahmat Begum, Chicago Department of Public Health Verneta Simon, USEPA

Attachments: Permit Contractor Drawing Survey Sketch



## DEPARTMENT OF PUBLIC HEALTH

## CITY OF CHICAGO

## FORM NO. CDPH.ROW.03

Notice is hereby given that the site you have requested a permit for is recorded with the City of Chicago Department of Public Health (CDPH) as potentially having environmental contamination on the site and adjacent right-of way. This environmental contamination could present a threat to human health and safety in connection with work performed at the site, or in the adjacent right-of-way, if proper safeguards are not employed.

A file containing detailed information regarding the aforementioned environmental contamination is available for review at CDPH at 333 S. State St., Room 200, Chicago, Illinois 60604 during normal business hours (8:30AM-4:30PM, Monday through Friday). Contact (312) 745-3152 for an appointment. This file must be reviewed and the remainder of this form completed before the permit can be issued if the ground is exposed or excavated. Please note that for some locations, additional health and safety procedures may be required by law.

Please complete the following:

I have reviewed and understand the documents, maintained by CDPH, regarding environmental contamination of the site and adjacent right-ofway. Further, I will ensure that all work at the subject site and adjacent right-of-way, and any monitoring required including but not limited to radiation monitoring, will be performed in a manner that is protective of human health and the environment and in compliance with all applicable local, state, and federal laws, rules, and regulations, especially those pertaining to worker safety and waste management. I will ensure that the results of any radiation monitoring and/or surveying conducted shall be provided to the CDPH and the United States Environmental Protection Agency within two (2) weeks of their completion. If any elevated levels of radioactive material are detected, I will immediately contact the United States Environmental Protection Agency at (800) 424-8802.

Applicant Name (print) \_\_\_\_\_ John Doherty

Signature:

Site Address and Work Location (Describe exact site location and attach map): 332 E North Water st

Nature of Work: Water Service - X/ew Ewing-Doherty Mechanical, Inc. 630-766-5920
Company Name, Address, Phone No.: 304 North York Road, Bensenville, IL 60106
General / Prime Contractor Name, Address, Phone No.: Lend LEase 312-245-5490
Include subcontractor information if applicable) Safety Officer / Phone No. Gloria Zamora 312-841-4212
Radiation Contractor / Phone No. (if applicable) AECOM 750 Corporate Woods PKWY, Vernon Hills Il 847-279-2500
Check if City Department Work Department Name:
CDOT Permit No.: 359980750 Today's Date: 9/20/2013 Expected Start Date: 9/22/2013 CDPH Approval / Date Commentarisa Begue
Today's Date: Management, Public Way Permit
Please return this completed form to the Chicago Department of Transportation, Division of Innestructure Management (8:30 AM - 4:30 PM, Monday through Office, City Hall – Room 905, 121 N. LaSalle St., Chicago, Illinois 60602 during normal business hours (8:30 AM - 4:30 PM, Monday through
Friday)

For CDPH Use Only



AECOM

REVIEWER

455 N Park+ Water Service JOB TITLE 60941812 CALCULATION NO. JOB NO. 10/11/13 10/14/13 ORIGINATOR \_\_\_\_\_\_ DATE SCK

DATE

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NTS OF SHEET NO. SCALE 155 DORTH PARK CHICAgo Je. Coursete Pumpe Set-up K Existing NEW Bldg Foundation -20 CATT Enisting Curs 7 Existing 2 0:0 ATTERisting N HEW Execution \* Existing WATER Mai'N -17' 4'0 iside + 4,5 to5,0' Deep NEW GASline October SF. to October 1149 Reading @ 5000 to 15000 Des /gr-Unsh. Quimas p Suerznier 10/11/13