DEPARTMENT OF THE ARMY
BUFFALO DISTRICT, CORPS OF ENGINEERS
1776 NIAGARA STREET
BUFFALO, NEW YORK 14207-3199

REPLY TO
ATTENTION OF

Environmental Project Management Team

November 13, 2013

SUBJECT: Responses to New York State Department of Environmental Conservation (NYSDEC) and New York State Department of Health (NYSDOH) Comments on the Niagara Falls Storage Site (NFSS) Balance of Plant Field Investigation Work Plans to Refine the Extent of Soil Contamination

[redacted]
Director
Remedial Bureau A
New York State Department of Environmental Conservation
Division of Environmental Remediation
Remedial Bureau A, 12th Floor
625 Broadway
Albany, NY 12233-7015

[redacted],

Thank you for providing your comments on the Niagara Falls Storage Site (NFSS) Balance of Plant Field Investigation Work Plans to refine the extent of soil contamination. Attached are our responses to NYSDEC and NYSDOH comments. Please contact me at [redacted] if you have any questions.

Sincerely,

[redacted]
Environmental Project Management Team Leader

Enclosure

ecc: [redacted] USEPA
[redacted], NYSDEC
[redacted], NYSDEC
[redacted] NYSDEC
[redacted], NYSDOH

NYSDEC General Comment: "Tasks associated with the last investigation, specifically the sampling of the installed wells were not accomplished. These tasks need to be completed."

> **Corps Response:** Newly installed groundwater monitoring wells MW-944 through MW-948 were dry at the time of sampling in December 2012. Groundwater samples have since been collected from monitoring wells MW-944, MW-945, MW-946, and MW-948 during environmental surveillance program activities. These results will be published in the environmental surveillance program technical memorandum. Monitoring well MW-947 is still dry and the Corps may decide to re-install this monitoring well.

NYSDEC Comment 1: "Section 3.2 states: "Three soil samples are to be collected from each boring, with each sample representing the following intervals: 0 to 15 cm (0 to 0.5 feet), 15 to 61 cm (0.5 to 2 ft) below grade, and 61 cm to 91 cm (2 to 3 ft) below grade." As indicated several times before, this Department interprets the 5pCi/g /15 pCi/g CERCLA criteria for Ra-226 and Ra-228 (respectively) being based on samples need to be collected every 6". Analyzing soil collected over a longer depth interval would be inappropriate unless a radiological scan of the soil within the intervals is uniform. Otherwise, this department would find it acceptable if a sample was collected from the highest 6" interval within each subsurface interval."

> **Corps Response:** The Corps does perform a uniform scan over the entire length of the soil core. Sampling intervals may be adjusted based on the field screening measurements.

NYSDEC Comment 2: "Section 3.4 states: "Hager-Richter Geoscience will perform a geophysical survey to identify the presence of utilities and other subsurface features in the area south of the IWCS,…". A geophysical survey was already conducted in this area (2001). What is the purpose of the new survey (identifying these locations because of the drilling which will be performed in the area)? It would seem that the area was geophysical surveyed in 2001. Was this area not included in last years' investigation? Relative to last years' investigation, the subsurface anomalies that were identified need to be evaluated and should be included in this investigation."

> **Corps Response:** The purpose of the geophysical survey is to update the 2001 geophysical survey with a tighter grid. Additionally, this geophysical survey will include the EM-61 method, which wasn't performed in 2001. Portions of this area were surveyed in last year's investigation.

NYSDEC Comment 3: "What affect does the fence around the IWCS have on the EM surveys?"

> **Corps Response:** EM61 will be affected within about 5 feet of the fence; the EM31 will be affected within about 8 feet of the fence; and, the magnetics will be affected within about 12 to 15 feet of the fence.

NYSDOH Comment 1: "What type of soil would be used to backfill the 378 boreholes?"

> **Corps Response:** Bentonite chips will be used to backfill the boreholes.

NYSDOH Comment 2: "What is the purpose of spreading the soil samples on plastic-lined surfaces for screening if the samples will be analyzed in the lab anyway? Extensive screening (as proposed) is time-consuming and increases the chance of cross contamination."

> **Corps Response:** The Corps will field screen the entire soil core to identify any elevated readings. Field screening allows for biased sampling.

NYSDOH Comment 3: "Why the matrix spike and matrix spike duplicate samples are not required for Ra-226 determination?"

> **Corps Response:** Ra-226 is being analyzed by gamma spec, which doesn't require a MS/MSD. Gamma spec is not a wet extraction method but uses a dry processed sample.

NYSDOH Comment 4: "The groundwater in the LWBZ flows northwest, but proposed excavations are all located east of OW11B (fig 11). Also, I don't see much sampling in east of EU 9, which is west of IWCS."

> **Corps Response:** The proposed excavation is to expose and evaluate the sanitary sewer in the vicinity of groundwater monitoring well OW-11B. The purpose of the soil investigation is to delineate the estimated extent of soil contamination. The absence of borings in EU9 indicates there is limited soil contamination in this area.

NYSDOH Comment 5: "For VOCs analysis, refrigeration or chemical preservation should be considered at collection time to preserve content integrity."

> **Corps Response:** Noted.

NYSDOH Comment 6: "For VOCs, scanning, attention should be given to selecting the right lamps (depending on the type of VOCs) and to the effect of humidity on the performance of the PID."

> **Corps Response:** Noted.