



DEPARTMENT OF THE ARMY
NEW YORK DISTRICT, CORPS OF ENGINEERS
JACOB K. JAVITS FEDERAL BUILDING
NEW YORK, N.Y. 10278-0090
September 23, 2014

Mr. John Abunaw
NYS Department of Conservation – Radiological Sites Section
625 Broadway, 9th floor
Albany, NY 12233-7255

Subject: Response to Comments on Main Site Soils Feasibility Study and Proposed
Plan Reports
Colonie FUSRAP Site
Colonie, NY

Dear Mr. Abunaw:

Please see the enclosed Response to Comments on Main Site Soils Feasibility Study and Proposed Plan Reports for the Colonie FUSRAP site. Please review these responses and advise if the responses are acceptable to the Department.

Should you have any questions, please call me at (917) 790-8230.

Sincerely

MOORE.JAMES.
T.1254211105
James T. Moore CPG
Project Manager

Digitally signed by
MOORE.JAMES.T.1254211105
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Date: 2014.09.23 10:41:36 -04'00'

Cc: Phyllis Della-Camera, CENAB

Subject: Response to New York State Department of Environmental Conservation (NYSDEC) and New York State Department of Health (NYSDOH) Comments on the Main Site Operable Unit Feasibility Study and Proposed Plan, Colonie FUSRAP Site, Colonie, NY

FEASIBILITY STUDY

Section 1.2.2.1 Removal Action

- Please reference the 2011 Action Memorandum mentioned here, that established that metal impacted soils would be removed only if present between 0 – 9 feet below ground surface.

Response: The FS specifically references the 2001 Action Memorandum. No Action Memorandums were issued in 2011.

- The second to last bullet indicates that a minimum of six inches of material was excavated from the entire site. Please indicate the purpose of this removal and clarify whether or not it was from the top six inches of surface soil (i.e. for areas covered by buildings or asphalt, were inches of soil removed from below the building slab or asphalt).

Response: The excavation of a minimum of six inches across the property was a removal action cleanup goal established in the USACE 2001 Action Memorandum. This goal was established as a conservative measure to ensure removal effectiveness. A minimum of six inches of surface soil was removed from fence line to fence line. The FS will be revised to indicate this.

Section 1.2.3.2 Metal Contaminants

- More information is needed regarding the known horizontal and vertical extent of contamination for each of the locations where metals remain above cleanup criteria. The referencing of one data point that exceeded cleanup goals is insufficient at describing the total extent of contamination. In addition, clarification is needed to indicate whether this data point reflects the most elevated reading for each area. We recommend that soil sampling frequency and the range of metals concentrations be incorporated in the Feasibility Study (FS) and also in the Proposed Plan (PP) for a better understanding of the size and scope of soil contamination that will remain and therefore needs to be managed. This information is needed as per 6 NYCRR Part 375 to determine whether land use controls, restrictions or excavation plans will be needed to ensure human exposures to remaining contaminated soils are properly managed.

Response: The RI Report contains substantial information regarding the horizontal and vertical extent of contamination. Appendix A to the FS is a figure that provides conservative estimates of the approximate vertical and lateral extents of areas in excess of removal action cleanup goals. These lateral and vertical extents are based on sample data presented in the RI Report. Table 5 in the RI provides additional depth sampling that was performed at each location to support vertical extent estimates. The lateral

extent was estimated based on high-density post removal action confirmatory sampling; the confirmatory sampling grid resulted in a sample collection density of about one per 0.04 acres (1,700 square feet). Confirmatory sampling results are in Table 3 of the RI.

Section 1.2.5 Summary of the Human Health Risk Assessment

- The statement that "...confirmatory data points taken at depths greater than nine feet...are unlikely to be available for contact..." is not adequate to prevent exposure to residual contamination at depth. A site management plan is required to identify procedures that will be followed to ensure that no unacceptable exposures to the residual contamination occur during or after any subsurface activities (Part 375-1.8(h)(2)). The Site Management Plan must include an excavation plan and a monitoring plan.

Response: A Site Management Plan will be developed to address public protection from subsurface soils that pose unacceptable risk.

Section 3.1.2 Alternative 2 – Land Use Controls

- We agree with the use of institutional controls to limit exposure to residual contamination at depth. However, the institutional controls need to be in the form of an Environmental Easement (EE) pursuant to Part 375-1.8(h)(2). The EE must require compliance with an approved site management plan, limit use to non-residential and include a periodic certification to confirm effectiveness of the institutional and engineering controls (Part 373-1.8 (h)(3)).

Response: The land use controls remedy will comply with all applicable substantive requirements of New York law.

Section 4.4.2 Alternative 2 – Land Use Controls

- Since this remedy includes the use of institutional and engineering controls, a site management plan will be required to indicate what mechanisms will be used to implement, maintain, monitor and enforce such controls and requirements. In addition, a site specific excavation plan must be incorporated for the protectiveness of future users of the site.

Response: A Site Management Plan will be developed to address public protection from subsurface soils that pose unacceptable risk.

PROPOSED PLAN

Radiological Contaminants

The United States Army Corp of Engineers (USACE) completed the large scale removal action at the Main Site (1130 Central Avenue) which involved the excavation and off-site disposal of over 135,000 cubic yards of contaminated soils. This action was conducted in accordance with the December 26, 2001 Action Memorandum. This document established the cleanup criteria for both radiological and chemical contaminants (35 picoCuries per gram (pCi/g) for uranium-238 and 2.5 pCi/g for thorium-232. During the USACE's implementation of this Action Memorandum, the NYSDEC independently conducted radiological surveys on each Final Status Survey Unit (FSSU) and collected random soil samples for independent analysis by our contract laboratory. They were 24 FSSU's in total at the main site. Based on our review of all the documentation submitted by the USACE and comparison with our independent radiological surveys and data analysis, the NYSDEC agrees that the remedial action of the soils at the main site met the cleanup criteria for radiological contaminants.

Response: USACE concurs.

Chemical Contaminants

The NYSDEC has reviewed both the FS and PP in terms of the chemical contaminants. This review is based on the cleanup criteria established in the Action Memorandum dated December 26 2001 and our letter of September 5, 2002. The removal actions conducted to address the radiological contamination also addressed chemical contamination at the surface and near surface (up to 9 feet below ground level). Remaining contamination at depth is not considered source material. The NYSDEC generally agrees with the remedial elements contained in the preferred alternative.

However, as discussed in our comments on the Feasibility Study, Land Use Controls must be in the form of an Environmental Easement and the remedy must require a Site Management Plan to manage potential exposure to the remaining subsurface contamination. The location of the residual contamination must be defined in more detail than in the proposed plan. Lastly, the remedy must include periodic review and certification that the institutional controls are being complied with and the Site Management Plan is being followed. See below for specific comments and recommendations that must be addressed in the final proposed plan:

Response: A Site Management Plan will be developed to address public protection from subsurface soils that pose unacceptable risk. Additional information regarding the extent of residual metals is presented in great detail in the RI Report.

Page 2-3, first paragraph

- The first complete sentence in this paragraph indicates that final soil removal depths for metals ranged from one foot to 9 feet below the ground, however, as indicated on page 2-4, radiological and metal contaminated soil were removed to depths up to 15 feet below ground. Please clarify the removal depths for radiological and metal

contaminants. Also, the report indicates that sheet piles were driven to a depth of forty feet below ground surface for purposes of removing deep radiological contamination. Please verify this information and provide an explanation as to why radiological contamination was removed to a depth of fifteen feet below the ground surface when it appears contaminated soil was anticipated to be much deeper as evidenced by the depth of sheet piles.

Response: The PP will be revised to clarify the final removal depths for radiological and metal contaminants. The discussions regarding final removal depths and sheet piles will also be modified for clarification. The sheet pile was driven to depths substantially greater than anticipated and actual removal in order to ensure high speed rail stability was not compromised. The PP will be revised to clearly state this.

- We recommend that additional information be provided to indicate why Survey Unit 109 was not included as needing land use controls such as are needed for Survey Unit 10, Survey Unit 124 and the North Lawn.

Response: Survey Unit 109 was not included as needing land use controls because metals concentrations in SU 109 did not present unacceptable risk. The PP will be revised to better communicate this.

Figure 3: Areas Being Considered for Land Use Controls

- To properly indicate the extent of contamination, the horizontal extent of the subsurface residual contamination must be shown in the figure, extending out from points that are contaminated to points that are clean.

Response: Information regarding the extent of residual metals is presented in great detail in the RI Report. The Site Management Plan will incorporate information from the RI, as necessary, to appropriately delineate the actual extent of contamination.