## Attachment 1



# September 2, 2004 NYSDEC Comment Letter



### New York State Department of Environmental Conservation

Division of Environmental Remediation Hudson River Unit, 11th Floor

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September 2, 2004

Mr. Edward K. LaPoint, P. E. GE Corporate Environmental Programs 320 Great Oaks Office Park Suite 319 Albany, NY 12203

Dear Mr. LaPoint:

The New York State Department of Environmental Conservation (NYSDEC) has reviewed the "Remedial Design Work Plan - Overburden Soil Remedy," prepared by Blasland, Bouck and Lee and provided by the General Electric Company (GE) to NYSDEC on July 30, 2004.

NYSDEC understands (based on the April 13, 2004 letter from Michael Elder of GE to Anthony Quartararo of NYSDEC) that GE has agreed to work cooperatively to develop an appropriate schedule and work plan for providing a design for the soils remedy, including the technology testing program contemplated by the Record of Decision (ROD), and to do so under a new Order on Consent. NYSDEC views GE's submission of this Remedial Design Work Plan (RDWP) as the first step in reaching agreement on GE's performance of the soils remedy remedial design.

After reviewing the RDWP, NYSDEC has the following comments. The comments are divided into general and specific categories.

#### General Comments:

- The overall approach proposed by GE to complete the remedial design (to evaluate site data; fill data gaps; compartmentalize the site soils by physical and chemical characteristics; determine soil cleanup levels; identify, evaluate and test technologies; and design remedies for compartments as appropriate) is acceptable to NYSDEC.
- The proposed sequencing/phasing of the remedial design may be unnecessarily complex; by combining discrete elements, a more efficient design work plan can be developed. NYSDEC believes that several of the discrete steps in the RDWP can be combined to accelerate completion of the design.

- 3) This RDWP should acknowledge that the ongoing design and implementation of the remedial program from Operable Units 2B, 2C, and 2D at the site will need to be taken into account to ensure that the two elements of the remedial program for the site do not cause logistical, scheduling, or other conflicts.
- The schedule is much longer than anticipated by NYSDEC. In previous meetings on this issue between NYSDEC and GE, a design duration on the order of two years was discussed. NYSDEC estimates that it may take five to six years for completion of the remedial design as currently proposed; however, if the phasing of the RDWP is modified as discussed above, the schedule can be reduced significantly. NYSDEC envisions a design schedule, including technology testing, with a duration of approximately two or three years.
- NYSDEC believes that a site-wide Operation, Maintenance and Monitoring (OM&M) plan will need to be developed which will address all aspects of long term OM&M at the GE Hudson Falls plant site. The overall remedial program for this site will be ongoing for the foreseeable future; a single document which will specify OM&M activities for the entire site would be a more efficient mechanism to ensure that the site remedy remains effective and protective in the long term. NYSDEC solicits GE's input on this issue during development of the RDWP and associated Order on Consent for the soils remedy.
- 6) The data submitted to NYSDEC in this design process should be in an appropriate electronic data deliverable (EDD). The Division of Environmental Remediation currently works with the EQuIS program for EDDs. Therefore, EquIS or a compatible format is requested.
- 7) Protection of human health (i.e., community surrounding the site) shall be a component of all design considerations and activities. For example, the assessment of remedial technologies should consider both achieving the site-specific soil cleanup levels (SCLs) and protecting the community by minimizing emissions associated with remediation.
- 8) The design should include a community air-monitoring plan that includes monitoring for particulate emissions and additional compounds as necessary during on-site building decommissioning and demolition (D&D).

#### Specific comments:

1) Task 2.3.2, Task 2 Deliverables (p. 2-5): The discussion found in the text here does not clearly state that the development of the soil cleanup levels will rely primarily upon actual site data. Instead, the statement is made here that:

"The DSCL process will consider the physical and chemical characteristics of each soil compartment and anticipated final site conditions (i.e., operation of the Enhanced Sitewide Remedial Network, covered areas, restricted areas, etc.). The process will be designed in consideration of the most relevant scientific research and, where appropriate, cited literature values may be used as key model variables (e.g., solubility)."

NYSDEC believes that it is important for the work plan to clearly state here that site-specific data will be used to the extent possible and practical to develop the site-specific soil cleanup levels. NYSDEC does not believe that it is appropriate to rely primarily upon literature values in developing a soil cleanup level in this design program. The text in this section of the work plan should be clarified to describe how, and to what extent, site-specific data will be gathered and used in soil cleanup level development. The text in this section should also describe how relevant scientific research will be selected and used.

2) Task 2.3.2, Task 2 Deliverables (p. 2-5): In the second paragraph, the Determination of Soil Cleanup Levels Report would provide the proposed soil cleanup levels. The footnote for that paragraph states:

"Soil Cleanup Levels will be reviewed, as needed, based on the results of the technology identification, testing, and selection tasks. The results of these tasks may influence the applicability of previously determined SCLs. Further, it may be necessary to defer the development and proposal of some SCLs until later design stages (see subsection 2.4.2)."

GE should provide the rationale under which it would be appropriate that the development and proposal of SCLs would be deferred until later in the design process.

- 3) Task 2.3.2, Task 2 Deliverables (p. 2-5): The work plan text here refers to a protocol developed by Alcoa in 1999 for determining site-specific soil-water partition coefficients which will be part of the basis for the work done under this task. GE should provide this protocol to NYSDEC for review as an appendix to this work plan.
- 4) Task 2.4.1, General (p. 2-5): The work plan here contains a footnote which reads:

For the purposes of this RDWP, excavation and offsite disposal of soils are considered a "technology."

NYSDEC agrees that it is appropriate for excavation and offsite disposal to be evaluated by GE at this point in the remedial design program. The design work plan should also state, however, the restrictions on use of excavation and offsite disposal contained in the 2004 ROD for the site. The ROD states that "Soils which are not amenable to treatment due to technology limitations, or which can not be feasibly treated to the site cleanup levels, will be considered for off site disposal at a properly permitted facility." (ROD, p. 38)

5) Section 3.2.2, Page 3-3: The air monitoring plan describes compliance with requirements set forth in TAGM 4031 and the NYSDOH generic Community Air Monitoring Plan (CAMP). The RDWP should indicate that additional sampling will be required during remediation to monitor for PCB air emissions, as appropriate.

6) Task 4.1.2, Building Survey, Decommissioning, and Demolition (p. 4-2): The work plan text here states that:

"D&D of former manufacturing buildings 1, 1A, 2, 3, 4, 7, and 12 is to be conducted following completion of remedial programs for overburden soils."

NYSDEC believes that it may not be appropriate to finalize the sequencing of remedial activities at this point in remedial design work plan development. The text here should be modified to allow for the remedial design engineering team to set the timing of building decontamination and demolition at a later point in the design process; NYSDEC recommends that an appropriate point in design would be in Task 6 (Basis of Design). This approach would allow the design engineer flexibility to either leave the buildings in place, or remove the buildings, as appropriate in development of the final remedial design for each soil compartment or set of compartments.

Section 4.1.3, Page 4-3: The text describes components that will be included in the 7) Declaration of Limited Use and Restrictions pertaining to future use of the site. The text should reiterate, as per the 2004 ROD, that future use of the site is limited to industrial and commercial use.

It is my understanding that a draft Order on Consent to address the remedial design work for Operable Unit 2A will be forwarded to your counsel in the near future.

Please contact me if you wish to discuss these comments, or have any questions.

Hudson River Unit

Division of Environmental Remediation

NYSDEC

Michael Elder, GE cc: Anthony Quartararo, DEE William Daigle, Hudson River Unit January 19, 2005 GE Response Letter





Edward K. LaPoint, P.E.

Project Manager

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19 January 2005

Mr. Kevin L. Farrar New York State Department of Environmental Conservation Division of Hazardous Waste Remediation 625 Broadway, 12<sup>th</sup> Floor Albany, NY 12233-7250

Re:

Remedial Design Work Plan, Overburden Portion of Remedu

Hudson Falls Record of Decision, Site No. 5-58-013 Response to NYSDEC letter of September 2, 2004

Dear Mr. Farrar:

Regarding the above referenced project, this letter provides GE's response to the Department's letter of September 2, 2004. The intent is to clarify and amend BBL's Remedial Design Workplan of July 2004 and provide EXHIBIT B for the proposed Consent Order.

GE's responses to the Department's comments are itemized below; General Comments 1 through 4 are addressed with one response, while the remaining comments are addressed individually.

#### NYSDEC's General Comments

- 1) The overall approach proposed by GE to complete the remedial design (to evaluate site data; fill data gaps; compartmentalize the soils by physical and chemical characteristics; determine soil cleanup levels; identify, evaluate and test technologies; and design remedies for compartments as appropriate) is acceptable to NYSDEC.
- 2) The proposed sequencing/phasing of the remedial design may be unnecessarily complex; by combining discrete elements, a more efficient design work plan can be developed. NYSDEC believes that several of the discrete steps in the RDWP can be combined to accelerate completion of the design.
- 3) This RDWP should acknowledge that the ongoing design and implementation of the remedial program from Operable Units 2B, 2C, and 2D at the site will need to be taken into account to ensure that the two elements of the remedial program for the site do not cause logistical, scheduling, or other conflicts.
- 4.) The schedule is much longer than anticipated by NYSDEC. In previous meetings on this issue between NYSDEC and GE, a design duration on the order of two years was discussed. NYSDEC estimates that it may take five to six years for completion of the remedial design as currently

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proposed; however, if the phasing of the RDWP is modified as discussed above, the schedule can be reduced significantly. NYSDEC envisions a design schedule, including technology testing, with a duration of approximately two or three years.

#### GE's Response to General Comments 1-4

In to order prevent logistical and scheduling conflicts with the construction of the TDCS, GE and its consultants will accelerate and complete the Remedial Design process for key areas of the site. As shown on Figure 1, the former Building 8,9,10 lot, the parking lot across John Street from Building 12, and the area east of the railroad tracks will be addressed in parallel with the Final Design for the TDCS which is due 8/1/05.

The Final Designs for the TDCS, the former Building 8,9,10 lot, the parking lot across John Street from Building 12, and the area east of the railroad tracks are related and will be addressed accordingly. The staging, excavation, and final placement of the rock spoils from the TDCS will be specified in detail in the Final Design. An integrated remedy and construction schedule will be required for these areas of the site. In total, the former Building 8,9,10 lot, the parking lot across John Street from Building 12, and the area east of the railroad track represent approximately 38% of the total area of the site.

The Remedial Design for the soils directly beneath the former manufacturing buildings is dependent on the effectiveness of the TDCS. The determination of cleanup levels, identification and evaluation of potential technologies will be impacted by the ability to dewater the overburden. The Final Remedial Design for these soils will be considered in light of the measured performance of the bedrock remedy. It may be possible or necessary to make minor adjustments with the TDCS system that will positively alter the design of the soils remedy.

The current overburden schedule is flexible and will allow for the acceleration of the design for specific areas (identified above) of the site related to the construction of the TDCS. The schedule also allows for the measured effectiveness of the of the bedrock remedy, which will facilitate the Final Remedial Design for the soils directly beneath the former manufacturing buildings.

#### NYSDEC's General Comments 5 through 8 and GE's Responses

5) NYSDEC believes that a site-wide Operation, Maintenance and Monitoring (OM&M) plan will need to be developed which will address all aspects of long term OM&M at the GE Hudson Falls plant site. The overall remedial program for this site will be ongoing for the foreseeable future; a single document which will specify OM&M activities for the entire site would be a more efficient mechanism to ensure that the site remedy remains effective and protective in the long term. NYSDEC solicits GE's input on this issue during development of the RDWP and associated Order on Consent for the soils remedy.

GE and it's consultants will develop a comprehensive site-wide Operation, Maintenance and Monitoring (OM&M) plan during design. The OM&M plan will be modified and updated as necessary during the various phases of the project, to ensure that the site remedy remains effective and protective in the long term.

6) The data submitted to NYSDEC in this design process should be in an appropriate electronic data deliverable (EDD). The Division of Environmental Remediation currently works with the EQuIS program for EDDs. Therefore, EQuIS or a compatible format is requested.

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GE will provide applicable design process data to NYSDEC in an electronic format readily utilized by commercially available software typically used in the engineering community.

7) Protection of human health (i.e., community surrounding the site) shall be a component of all design considerations and activities. For example, the assessment of remedial technologies should consider both achieving the site-specific soil clean-up levels (SCLs) and protecting the community by minimizing emissions associated with remediation.

A key factor in GE's design will be to ensure the protection of human heath (i.e., the community surrounding the site) during field activities; in particular with respect to air emissions, levels of PCB and other chemicals will be limited to ensure protection of human health from testing or treatment activities.

8) The design should include a community air-monitoring plan that includes monitoring for particulate emissions and additional compounds as necessary during on-site building decommissioning and demolition (D&D).

An air monitoring plan, consistent with applicable regulations, will be included in the design of the decommissioning and demolition (D & D) of the on-site buildings.

#### NYSDEC's Specific Comments 1 through 7 and GE's Responses

1) Task 2.3.2, Task 2 Deliverables (p. 2-5): The discussion found in the text here does not clearly state that the development of the soil cleanup levels will rely primarily upon actual site data. Instead, the statement is made here that:

"The DSCL process will consider the physical and chemical characteristics of each soil compartment and anticipated final site conditions (i.e., operation of the Enhanced Site-wide Remedial Network, covered areas, restricted areas, etc.). The process will be designed in consideration of the most relevant scientific research and, where appropriate, cited literature values may be used as key model variables (e.g., solubility)."

NYSDEC believes that it is important for the work plan to clearly state here that site-specific data will be used to the extent possible and practical to develop the site-specific soil cleanup levels. NYSDEC does not believe that it is appropriate to rely primarily upon literature values in developing a soil cleanup level in this design program. The text in this section of the work plan should be clarified to describe how, and to what extent, site-specific data will be gathered and used in soil cleanup level development. The text in this section should also describe how relevant scientific research will be selected and used.

GE agrees that site-specific data (e.g. measured soil-water partitioning relationships) will be used to the extent practicable to develop the site-specific soil cleanup levels. GE will not rely primarily upon literature values, but rather will use cited literature values where site-specific data cannot be obtained during the design process or the values are scientific standards (e.g., chemical solubility).

2) Task 2.3.2, Task 2 Deliverables (p. 2-5): In the second paragraph, the Determination of Soil Cleanup Levels Report would provide the proposed soil cleanup levels. The footnote for that paragraph states:

"Soil Cleanup Levels will be reviewed, as needed, based on the results of the technology identification, testing, and selection tasks. The results of these tasks may influence the

applicability of previously determined SCLs. Further, it may be necessary to defer the development and proposal of some SCLs until later design stages (see subsection 2.4.2)."

GE should provide the rationale under which it would be appropriate that the development and proposal of SCLs would be deferred until later in the design process.

The footnote indicates that the soil cleanup levels may be modified if the application of a given technology changes the factors involved in the development of a given SCL. For example, if the application of a technology changes existing soil characteristics, the SCL may also be affected.

3) Task 2.3.2, Task 2 Deliverables (p. 2-5): The work plan text here refers to a protocol developed by Alcoa in 1999 for determining site-specific soil-water partition coefficients which will be part of the basis for the work done under this task. GE should provide this protocol to NYSDEC for review as an appendix to this work plan.

The Development of a Protocol for Measuring Site-Specific Soil Sorption Constants (Alcoa, et. al., 1999) is included as an attachment to this letter.

4) Task 2.4.1, General (p. 2-5): The work plan here contains a footnote which reads:

For the purposes of this RDWP, excavation and offsite disposal of soils are considered a "technology."

NYSDEC agrees that it is appropriate for excavation and offsite disposal to be evaluated by GE at this point in the remedial design program. The design work plan should also state, however, the restrictions on use of excavation and offsite disposal contained in the 2004 ROD for the site. The ROD states that "Soils which are not amenable to treatment due to technology limitations, or which can not be feasibly treated to the site cleanup levels, will be considered for off site disposal at a properly permitted facility." (ROD, p. 38)

As provided in the RDWP, notably Section 2.4, GE will evaluate and select remedial technologies based on their potential to achieve SCLs, and considering future site conditions. Excavation and offsite disposal will be evaluated and compared with various treatment options and presented to NYSDEC.

5) Section 3.2.2, Page 3-3: The air monitoring plan describes compliance with requirements set forth in TAGM 4031 and the NYSDOH generic Community Air Monitoring Plan (CAMP). The RDWP should indicate that additional sampling will be required during remediation to monitor for PCB air emissions, as appropriate.

GE acknowledges that NYSDEC will require air monitoring for PCB emissions during remediation, as appropriate.

6) Task 4.1.2, Building Survey, Decommissioning, and Demolition (p. 4-2): The work plan text here states that:

"D&D of former manufacturing buildings 1, 1A, 2, 3, 4, 7, and 12 is to be conducted following completion of remedial programs for overburden soils."

NYSDEC believes that it may not be appropriate to finalize the sequencing of remedial activities at this point in remedial design work plan development. The text here should be modified to allow for the remedial design engineering team to set the timing of building decontamination

and demolition at a later point in the design process; NYSDEC recommends that an appropriate point in design would be in Task 6 (Basis of Design). This approach would allow the design engineer flexibility to either leave the buildings in place, or remove the buildings, as appropriate in development of the final remedial design for each soil compartment or set of compartments.

Section 4.1, page 4-1 para. 4 indicates that the design of the building D & D (and all Site Restoration Activities) is dependent on the final design. As such, and consistent with NYSDEC's position provided above, the design of the building D & D may be modified from the description provided in Section 4.1.2. of the RDWP.

7) Section 4.1.3, Page 4-3: The text describes components that will be included in the Declaration of Limited Use and Restrictions pertaining to future use of the site. The text should reiterate, as per the 2004 ROD, that future use of the site is limited to industrial and commercial use.

The Declaration of Limited Use and Restrictions will include a provision for industrial or commercial use of the property only, unless otherwise approved specifically by NYSDEC or the NYSD of Health.

Please feel free to contact me if you have any questions or comments.

<del>Sin</del>cerely

Edward K. LaPoint, PE Project Manager

CC:

J. Haggard

M. Elder

A. Quartararo

**Attachments** 

## Figure 1



