

**EPA comments on: Regulatory Submittal Part I - Work Plan  
Remediation and Deconstruction of  
Fiterman Hall – 30 West Broadway  
New York, New York  
Dated January 10, 2006**

**PAL Responses (Red):**

General Comments

1. Reference is made to various plans that will be submitted at a later date by the contractor(s) awarded the contract(s) for this project. It would be beneficial for the owner to provide the regulators with as much detail as possible on all aspects of the project at this stage of the process, as opposed to a later date, to minimize any delays on the initiation of the project since the regulators will need additional time to review any supplemental information provided. EPA reserves its right to comment on these subsequent documents and reserves its right to make additional comments on the preliminary documents dated January 10, 2006 submitted by Airtek for the owner.

Regulatory Submittal Part I(R) – Remediation Operations Work Plan is being submitted at this time to allow for the decontamination of the Building interior in order to prepare the structure for deconstruction. A work plan detailing the deconstruction procedure will be submitted under separate cover.

2. It is recommended that an Asbestos and COPC Abatement Plan be developed for this project. Information including, but not limited to, the installation of exterior hoist(s) or crane(s), the installation of scaffolding and tie-ins, the movement of containers within the building to and from storage areas and/or loading areas, and the types of containers/bags, etc. to be used to transport waste streams from the containment areas should be provided.

Regulatory Submittal Part I(R) – Remediation Operations Work Plan details the abatement procedure. Cranes and exterior hoists are not applicable to the Remediation Operations. Exterior scaffold tie-in methodology has previously been detailed in Regulatory Submittal Part I(S) – Scaffold Erection Operations Work Plan.

Please refer to the following items in Part I (R):

Movement of containers within the Building: Section 4.5  
Types of containers: Section 6.1.3

3. The “Deconstruction Phase” is not defined in Part I. There is a Section titled, “Conventional Building Demolition.” If this is considered the “Deconstruction Phase” all submissions referencing both terms should be revised to provide clarity.

Not applicable to Remediation Operations. A work plan detailing the deconstruction procedure will be submitted under separate cover.

4. Under what phase will the scaffolding and netting occur. Details should be provided.

The scaffolding erection operation and netting removal will occur as detailed in the previously submitted Regulatory Submittal Part I(S) – Scaffold Erection Operations Work Plan.

Section 2.4 Regulatory Submittal Part III – Preliminary Health & Safety Plan

5. This section states that a preliminary Health and Safety Plan (HASP) is included as Part III of the submittal package and that the contractor awarded the contract for the project will finalize the HASP. Airtek should provide specific details on what additional information will need to be incorporated into the final HASP that is not already in the preliminary HASP.

The DASNY/CUNY HASP was intended for use up until the point that a contractor took control of the site (through the Investigation Phase).

Refer to Regulatory Submittal Part III(R)-Remediation Operations Health and Safety Plan submitted as a supplement to Part I(R).

This HASP is intended for use by all site personnel and visitors (excluding regulators who will comply with their own HASP) during the Remediation Operations work.

Section 3.3 NYS DOL Variance Applications

6. Reference is made to a “Contractor’s work plan”. What will this work plan entail and when will it be submitted?

Contractor’s work plan refers to Regulatory Submittal Part I(R) – Remediation Operations Work Plan which is being submitted at this time.

Section 4.5 Elevator Service

7. This section discusses Airtek’s *Re-opening Request for Variance 05-0919, 11/14/05*. Please be cognizant that EPA and DOL have already provided comments on the re-opening request. Revisions should be made to this section based on the initial comments provided on the re-opening request.

Refer to Section 4.5 of Regulatory Submittal Part I(R) – Remediation Operations Work Plan.

Section 5.2 Work Area Monitoring

8. What is Airtek defining as “project monitoring”?

Terminology revised to Work Area Monitoring. Work Area Monitoring refers to air sampling inside remediation work areas. Refer to Section 5.2 of Regulatory Submittal Part I(R) – Remediation Operations Work Plan to view this revision.

9. This section states that project monitoring and asbestos air sampling will be conducted throughout the Remediation Phase of the Project. Community air monitoring needs to be conducted for all phases of the project: the remediation phase, the deconstruction phase, and the installation of scaffolding and any netting. Part I should be revised for clarity.

Refer to previously submitted Regulatory Submittal Part II – Environmental Community Air Monitoring Plan.

Section 6.1 Operation I – Clean Zone Decontamination & Clearance

10. The figures attached to Part I do not indicate where the three zones (Clean Zone 1, 2, and 3) are designated. Please clarify.

The Clean Zone has been reconfigured in Regulatory Submittal Part I(R) – Remediation Operations Work Plan. It will now be one zone. Please refer to Section 6.1 for details regarding the parameters of the Clean Zone. Additionally, please refer to Attachment V of Regulatory Submittal Part I(R) – Remediation Operations Work Plan to view logistics plans detailing the layout of the Clean Zone.

Section 6.6 Operation VI – Work Area Clearance

11. This section states that the site will be considered ready for the “conventional Deconstruction Phase” after interior air clearance sampling. A “conventional Deconstruction Phase” is not defined. Please provide clarity.

Please refer to Sections: 6.1.6, 6.1.7 & 6.20 of Regulatory Submittal Part I(R) – Remediation Operations Work Plan for details regarding interior air clearance sampling.

A work plan detailing the deconstruction procedure will be submitted under separate cover.

12. This section states that a detailed work area clearance protocol will be developed in conjunction with the final Work Plan to be submitted by the Contractor. Airtek should provide specific details on what additional information will need to be incorporated into the final work area clearance protocol that is not already specified in Part I. What will the “final Work Plan” entail and when will it be submitted.

Please refer to Sections: 6.1.6, 6.1.7 & 6.20 of Regulatory Submittal Part I(R) – Remediation Operations Work Plan for details regarding interior air clearance sampling.

### Section 7.1 Permits

13. This section states that the contractor will obtain MTA and LMCCC approvals of the deconstruction plan. What is the timeframe for submitting the deconstruction plan to the MTA and LMCCC for comment and review? If comments provided by the MTA and/or LMCCC will impact the engineering controls specified in the plans to ensure that safeguards for the prevention of releases into the environment of hazardous substances and contaminants are employed, the regulators will need another opportunity to review the plans modified to incorporate their comments before the commencement of work.

Regulatory Submittal Part I(R) – Remediation Operations Work Plan will be submitted at this time to MTA and LMCCC. This will allow for any comments received from MTA and LMCCC to be incorporated into the plan along with EPA and other regulatory agency comments and be submitted for approvals before the commencement of Remediation Operations work.

A work plan detailing the deconstruction procedure will be submitted under separate cover.

### Section 7.3 Scaffolding

14. Reference is made to a structural engineer's *Deconstruction and Scaffold Layout Plan*. This plan was not submitted. Please provide details.

Reference to Deconstruction and Scaffold Layout Plan removed. Refer to previously submitted Regulatory Submittal Part I(S) – Scaffold Erection Operations Work Plan for details regarding the exterior scaffolding installation procedure.

### Section 7.5 Demolition Sequence

15. This section gives the impression that elevators and utility areas will be handled after the remediation phase. How can contaminated elevator shafts and utility areas be properly cleaned and their respective areas cleared if Airtek proposes to conduct these activities after the removal of containment and critical barriers?

Elevator shafts and utility areas will be fully decontaminated during the Remediation Operations.

For details regarding the remediation of elevator shafts refer to Section 6.14 of Regulatory Submittal Part I(R) – Remediation Operations Work Plan.

For details regarding the remediation of utility areas refer to Section 6.15 of Regulatory Submittal Part I(R) – Remediation Operations Work Plan.

16. This section states that the contractor will deconstruct the building in the sequence described in their work plan. Information on the sequencing of the work should be provided to understand the steps to be taken.

**Not applicable to Remediation Operations. A work plan detailing the deconstruction procedure will be submitted under separate cover.**

17. This section states that as each floor is deconstructed, material will be pushed down abandoned shafts and dropped to the cellar level. No information is provided on what shafts, on what floors, or what materials are planned to be dropped in these shafts and how using such a method to transport materials to the ground level will be properly controlled. Details must be provided.

**Please note that no material will be dropped down shafts at any time during the Remediation Operations. Please refer to Sections: 6.10 & 6.14 for the policy regarding the dropping of material during Remediation Operations.**

**A work plan detailing the deconstruction procedure will be submitted under separate cover.**

#### Section 7.6 Waste Management – Conventional Demolition

18. The following sentence found in this section should be re-written to read as follows: “Based on the results of RCRA characteristic testing, the waste will be characterized according to any exceedances of RCRA parameters.”

**For details on Remediation Operations waste management, refer to Regulatory Submittal Part IV – Waste Sampling and Management Plan.**

#### Section 7.7 Site Work

19. This section discusses removing rubble in the cellar. It is not clear if this pertains to rubble currently to be found in the cellar. If so, it would need to be handled properly under containment during the remediation phase.

**All debris in the cellar will be removed during the final cleaning in the Basement Level. Refer to Section 6.20 for details regarding this procedure.**

20. This section states that the cellar concrete slab is to be left broom clean. No detail is provided on if, and how, the concrete slab will be cleaned during the remediation phase to remove any potential dust that currently sits on the surface of the concrete slab. More details should be provided.

All surfaces of the Basement, including the slab, will be cleaned by HEPA vacuuming and wet-wiping during the final cleaning stage of the Remediation Operations. Refer to Section 6.20 for details regarding this procedure.

Attachment I: Variance Applications

21. This attachment simply states that regulatory variance requests are to be determined by final contractor scope. This relevant information needs to be provided to fully understand how the waste streams will be handled for this project.

Please see Regulatory Submittal Part I(R) Remediation Operations Work Plan - Attachment II – New York State DOL Variance Petition.

Attachment II: Logistics Plans

22. Many of the figures/drawings in the attachments are difficult to read. Consequently, not all of the information noted on the figures/drawings is legible, and complete comments cannot be provided at this time due to this problem. Please submit clear and easy-to-read figures/drawings for review and comment.

See revised Regulatory Submittal Part I(R) – Remediation Operation Work Plan, Attachment V Logistics Plans.

23. More specific details on how/where waste streams will be stored in the “storage area” as shown on the figure should be provided.

Refer to Section 6.1 of Regulatory Submittal Part I(R) - Remediation Operations Work Plan for details on the waste storage area to be used during the Remediation Operations. See revised Regulatory Submittal Part I(R) - Remediation Operations Work Plan, Attachment V Logistics Plans.

Additionally, one hundred yard asbestos waste trailers will be parked in the Existing Loading Dock. Asbestos waste will be loaded directly into these trailers. When a trailer is full or in the process of being switched out, asbestos waste will be stored in the Waste Storage Area. Refer to Section 6.4 of Regulatory Submittal Part I(R) – Remediation Operations Work Plan for details regarding the asbestos waste trailers.

24. How does this figure correlate with Figure WS-1 in Part IV (Waste Sampling and Management Plan)? Please clarify.

The Waste Storage Area to be used during the Remediation Operations shown on Figure WS-1 is the same Waste Storage Area shown on the First Floor Clean Zone Logistics Plan.

See revised Regulatory Submittal Part I(R) - Attachment V Logistics Plans.

25. Section 6.0 (Waste Packaging and Storage) of Part IV (Waste Sampling and Management Plan) states that the locked waste storage areas will be established in the southeast corner of the first floor of the building. The figure in Attachment II seems to show that the storage area will be located in the northwest corner of the building. It also seems to conflict with the figure shown in Attachment III. Please clarify.

The location of the Waste Storage Area has been moved to streamline the waste removal process. The Waste Storage Area for the Remediation Operations will be located on the west side of the floor, north of the Secondary Loading Dock.

Refer to Regulatory Submittal Part I(R) – Remediation Operations, Attachment V Logistics Plans for location of Waste Storage Area.

Additionally, refer to Section 6.1 of Regulatory Submittal Part I(R) – Remediation Operation Work Plan for details regarding the Waste Storage Area.

Attachment III: Remediation Phasing Plan 1-A

26. It is unclear from the figure how waste will be transported from the storage area to the loading docks. Please clarify.

Refer to Section 7.0 of Regulatory Submittal Part I(R) – Remediation Operations Work Plan for details on the movement of waste.

**DOL Comments on:**

**Re: Comments on Asbestos/WTC Dust Portion of  
Airtek Preliminary Façade & Environmental Characterization Reports  
& Regulatory Submittal – Part I Work Plan  
Fiterman Hall Building  
30 West Broadway  
New York, NY**

Dear Pat,

The Department has reviewed the January 10, 2006 Airtek Façade & Environmental Characterization Reports, as well as the Part I Work Plan document, as they all relate to asbestos material (ACM) and WTC dust/residue identification, assessment and removal/cleanup procedures. Several significant items within the reports and work plan must still be revised for consistency with the report data, and to address other Departmental concerns.

The Department has discussed concerns regarding the reports with the NYC DEP, and the Department provides the following general and specific comments on the reports and work plan, to be included with your comments on the entirety of the referenced reports.

**General Comments**

GC1) • Neither of the reports or the work plan included floor plans that identified areas severely damaged by the collapse of building 7. For the reports, these floor plans shall also identify locations of remaining ACM within the building.

Refer to Regulatory Submittal Part I(R) – Remediation Operations Work Plan, Attachment VI – Asbestos Containing Material Location Diagrams for plans indicating the locations of ACM within the Building. Please note that these plans include areas damaged by the 7WTC collapse.

GC2) • Tables, figures and plan drawings included within the reports and work plan were illegible due to sizing. Please include revised tables, figures and plan drawings with legible information.

Revised plans are included as Attachments V & VI of Regulatory Submittal Part I(R) – Remediation Operations Work Plan.

GC3) • Information regarding cleaning of the “gash area” needs to be expanded upon. For example,

Details regarding the cleaning of the Gash Area are included in the previously submitted Regulatory Submittal Part I(S) – Scaffold Erection Operation.

GC4) • What is the extent of the gash area?

The Gash Area constitutes the entire South Façade of Fiterman Hall from grade level to the Fifteenth Floor as well as lower portions of the southwest and southeast corners of the Building.

GC5) • Was the entire gash area cleaned and cleared when bulk debris was previously removed?

The Gash Area was cleaned and the interior floors sealed during NYC DEP WTC area clean up project.

GC6) • Is the gash area now enclosed with temporary barriers to allow for removals and cleaning still necessary? If not, what portion of gash area is enclosed?

The Gash Area is sealed with temporary barriers on all floors where damage was sustained by the Building.

GC7) • What is the scope of work and procedures specified to address asbestos project removals, cleanup and required visual inspections within the gash area? Limited information is provided within section 6.3.1 of the work plan, but full details of existing conditions and site-specific procedures to be followed for temporary hardwall barrier and containment construction at the gash area must be included.

Refer to Section 6.7 of previously submitted Regulatory Submittal Part I (S)-SEO Work Plan for details regarding the cleaning of the Gash Area to take place during SEO.

Additionally, refer to Section 6.12 of Regulatory Submittal Part I(R) – Remediation Operations Work Plan for details regarding asbestos abatement procedures in the Gash Area.

GC8) • The Department adopted amended Industrial Code Rule 56 (ICR 56) on January 11, 2006. Please modify all references to ICR 56 within subsequent revised reports and work plans to be consistent with current requirements.

Refer to Section 3.2 of Regulatory Submittal Part I (R) - Remediation Operations Work Plan.

GC9) • Within the work plan, no detailed procedures were included for the majority of the asbestos project tasks. Instead, references were included which indicated that once selected, the asbestos abatement contractor would determine actual asbestos project procedures within site-specific variance decisions yet to be obtained. This approach is not advisable, as all specifics regarding implementation of the asbestos project should be established by the asbestos project designer prior to the bidding of the project; so all bidders know what will be required to complete the asbestos project.

Refer to Sections: 6.1.4, 6.11, 6.12, 6.13.4 & 6.13.5 of Regulatory Submittal Part I (R)- Remediation Operations Work Plan for details regarding abatement procedures.

GC10) • The role of the project designer is to “plan the scope, timing, phasing and remediation methods to be utilized on any asbestos project”. For an asbestos project that includes asbestos contamination cleanup, and specifically WTC dust/residue cleanup, establishment of the required asbestos project procedures within the work plan is essential, to reduce potential asbestos project procedural problems throughout the course of the asbestos project. If procedures must be specified that aren’t consistent with ICR 56 requirements, a site specific variance must be obtained by the project designer as an agent for the owner, and the procedures and conditions contained within the site-specific variance decision must be incorporated into the work plan specified asbestos project procedures.

Regulatory Submittal Part I(R) - Remediation Operations Work Plan was prepared by Aric Domozick of PAL Environmental Safety Corp. Project Designer (Certificate No. 92706-5) in conjunction with the DASNY/CUNY Project Team.

Site specific variance will be submitted for the Remediation Operations and will be included as Attachment II of Regulatory Submittal Part I(R) - Remediation Operations Work Plan

GC11) • All asbestos project design submittals, including variance petitions, must be submitted to DASNY internal asbestos project design personnel for appropriate review and approval, prior to submission to the Department. The Department will not review any site-specific variance petition, or revised work plan asbestos project procedures, without DASNY’s prior approval of the submission.

All plans, submittals and applications will be reviewed and approved by DASNY prior to submission to The Department of Labor.

### **Specific Comments**

#### PRELIMINARY FACADE CHARACTERIZATION REPORT

##### • 3.4 ASBESTOS-CONTAINING MATERIAL (ACM) INSPECTION AND TESTING

*SC1) “Figure F-1 Section View for flashing location” was referenced within this section, but not apparent within the report. Also, ACM interior vapor barrier and ACM lintel flashing located below the windows between brick fascia and façade structural components were both referenced within this section, but no obvious correlation was apparent with the ACMs identified within Report Attachment B.*

Removal details for ACM vapor barrier, referred to in Regulatory Submittal Part I(R) – Remediation Operations as kneewall mastic, are included in Sections: 6.1.4 & 6.11.

For information regarding ACM lintel flashing, referred to in Regulatory Submittal Part I(R) – Remediation Operations as spandrel mastic, refer to Section 6.19.

- 4.3 FACADE INTEGRITY

*SC2) Were operable window hidden surfaces investigated? Do these surfaces still contain WTC dust/residue, which must be cleaned prior to sealing of the windows as critical barriers? Please provide additional information regarding these potentially contaminated surfaces.*

Refer to Sections 6.1 & 6.5 of Regulatory Submittal Part I(R) – Remediation Operations for details regarding cleaning of window surfaces and the installation of critical barriers.

- 4.4 ASBESTOS-CONTAINING MATERIALS

*SC3) The only materials referenced within this section are interior vapor barrier and non-friable lintel flashing. Is the lintel flashing included within this section the same as the ACM spandrel flashing mastic and beam flashing mastic at the loading dock entrance identified within the asbestos summary table later in the report? Please correlate these materials appropriately with bulk sample analysis data. Also, no information is apparent within this section regarding the ACM window caulking at the stair and elevator mechanical room roofs, the ACM roof membrane on the 14<sup>th</sup> floor roof, or the ACM window frame caulking at the first floor exterior of the building. All of these materials were identified within Report Attachment B, Table 1 “Summary of Building Envelope Inspection Results for Asbestos”.*

Lintel flashing and spandrel mastic refer to the same material. This material is non-friable and is referred to as spandrel mastic in Regulatory Submittal Part I(R) – Remediation Operations Work Plan.

For details regarding the removal of ACM window caulking refer to Section 6.13.4 of Regulatory Submittal Part I(R) – Remediation Operations Work Plan.

For details regarding the removal of ACM roof membrane refer to Section 6.13.5 of Regulatory Submittal Part I(R) – Remediation Operations Work Plan.

## PRELIMINARY ENVIRONMENTAL CHARACTERIZATION REPORT

- 1.0 EXECUTIVE SUMMARY

*SC4) ACM spandrel flashing removal during deconstruction was referenced, but no other exterior ACM identified within the Facade Report was discussed within the summary.*

For information regarding ACM spandrel flashing, referred to in Regulatory Submittal Part I(R) – Remediation Operations as spandrel mastic, see Section 6.19. This material

will be removed during the deconstruction activities. A work plan detailing deconstruction activities will be made under separate cover.

The other exterior ACM materials present are as follows:

**Roofing Membrane:** For details regarding the removal of ACM roof membrane refer to Section 6.13.5 of Regulatory Submittal Part I(R) – Remediation Operations Work Plan.

**VAT (Gash Area) Floors: Eleven, Twelve & Fourteen:** For details regarding the removal of VAT in the Gash Area refer to Section 6.12 of Regulatory Submittal Part I(R) – Remediation Operations Work Plan.

**Window Caulking:** For details regarding the removal of ACM window caulking refer to Section 6.13.4 of Regulatory Submittal Part I(R) – Remediation Operations Work Plan. Window caulking on the First Floor exterior will be incorporated into the forthcoming revised Regulatory Submittal Part I(S) – Scaffold Erection Operation Work Plan. It has been determined that it should be removed during other exterior work on the First Floor Level.

#### • 5.4 ASBESTOS CONTAINING MATERIALS SURVEY

*SC5) Is the vapor barrier on interior surface of façade block referenced within this section the same as the ACM tar, paper, and fiberglass/felt materials (1<sup>st</sup> through 15<sup>th</sup> floor) on the perimeter walls identified within the asbestos summary table later in the report? Please correlate these materials appropriately with bulk sample analysis data. Also, no information is apparent within this section regarding the ACM window caulking at the elevator mechanical room roofs, the ACM roof membrane on the 14<sup>th</sup> floor roof, or the ACM window frame caulking at the first floor exterior of the building. All of these materials were identified within Report Attachment IV, Table 1 “Summary of Inspection Results for Asbestos”. In addition, the results summary indicates that floor covering materials were assumed to be ACM, but nothing is included regarding the floor covering adhesives/mastics. These materials should also be assumed and treated as ACM, unless appropriate bulk sampling and analyses adequately show the materials to be non-ACM.*

Removal details for ACM vapor barrier, referred to in Regulatory Submittal Part I(R) – Remediation Operations as kneewall mastic, are included in Sections: 6.1.4 & 6.11.

**Window Caulking:** For details regarding the removal of ACM window caulking refer to Section 6.13.4 of Regulatory Submittal Part I(R) – Remediation Operations Work Plan. Window caulking on the First Floor exterior will be incorporated into the forthcoming revised Regulatory Submittal Part I(S) – Scaffold Erection Operation Work Plan. It has been determined that it should be removed during other exterior work on the First Floor Level.

**Roofing Membrane:** For details regarding the removal of ACM roof membrane refer to Section 6.13.5 of Regulatory Submittal Part I(R) – Remediation Operations Work Plan.

Mastics are currently being sampled to determine composition. If mastics contain more than 1% asbestos these materials will be removed as ACM and incorporated into Regulatory Part I(R) –Remediation Operations Work Plan.

## REGULATORY SUBMITTAL PART I – WORK PLAN

### • 4.5 ELEVATOR SERVICE

*SC6) This section indicates that the elevator shafts will be vented to the top floor, which will be placed under negative pressure to filter and control the vented air. However, the reopening request detail drawings don't agree with this proposed method. All asbestos project work plan procedures shall correspond with all conditions and procedures within existing site specific variance decisions, decision amendments and decision re-openings for the project.*

Refer to Sections 6.5 & 6.14 to view details regarding the filtration of air vented from elevator shafts. Please note that the procedure outlined in this Section will correspond to the Site Specific Variance Petition.

### • 6.1 OPERATION I – CLEAN ZONE DECONTAMINATION& CLEARANCE

*SC7) This section indicates that three zones on the first floor will be sealed off, gut-stripped, decontaminated, and then clearance achieved. However, no details regarding specified procedures (i.e. decontamination system enclosures construction, placement and utilization requirements, work area preparation requirements, removal/handling and cleaning procedures, etc.) to complete these tasks were apparent.*

The parameters of the Clean Zone have been reconfigured. Refer to Section 6.1 of Regulatory Part I(R) –Remediation Operations Work Plan for details regarding the establishment and parameters of the Clean Zone.

### • 6.2 OPERATION II – EXTERIOR CLEANING

*SC8) No specific scope of work, or details regarding specified procedures (i.e. decontamination system enclosures construction, placement and utilization requirements, work area preparation requirements, wastewater collection methods, removal/handling methods, cleaning and clearance procedures, etc.) to complete these tasks were apparent.*

Exterior façade cleaning was detailed in previously submitted Regulatory Submittal Part I (S)-SEO Work Plan.

### • 6.3 OPERATION III – GUT STRIP

#### • 6.3.1 Building Envelope Preparation Work

SC9) *It is unclear how operable window hidden surfaces that may still contain WTC dust, will be cleaned prior to sealing of the windows as critical barriers. Also, the façade cleaning procedures during erection of the scaffolding must be thoroughly defined within the work plan. Also, the specific details regarding barrier installation and establishment of containment at the gash area must also be addressed.*

Refer to Sections 6.1 & 6.5 of Regulatory Submittal Part I(R) – Remediation Operations for details regarding cleaning of window surfaces and the installation of critical barriers.

Exterior façade cleaning procedures were detailed in previously submitted Regulatory Submittal Part I (S)-SEO Work Plan.

The Gash Area is currently sealed with temporary barriers installed on all floors where damage was sustained by the Building during NYC DEP WTC clean up activities.

- 6.3.2 Establishment of Negative Air Pressure

SC10) *This section refers to a site-specific variance “to be solicited” for alternate procedures. All asbestos project work plan procedures shall correspond with all conditions and procedures within existing site-specific variance decisions, decision amendments and decision re-openings for the project.*

Please refer to Sections 6.1 & 6.5 of Regulatory Submittal Part I(R) – Remediation Operations for details regarding the establishment of negative air pressure. Site specific variance will be submitted as Attachment II detailing the installation of negative pressure.

- 6.3.3 Material Shredder

SC11) *More information must be included regarding any proposed shredding operations. For instance, adequate manufacturer information on whatever unit is proposed must be provided, as well as information regarding isolation barriers for the shredding operations within the work area, and all appropriate engineering controls to be utilized during the shredding and bagging/containerization of the shredded waste stream. In addition, no ACM removed shall be shredded.*

Refer to Section 6.3 of Regulatory Submittal Part I(R) for details regarding the shredder.

Also, refer to Attachment VII of Regulatory Submittal Part I(R) to review the manufacturers information cuts regarding the shredder machine.

- 6.3.4 Work Areas

SC12) *This section indicates that the entire structure will be one work area. This approach may be problematic, as the entire work area will be abated, then cleaned then cleared. One floor couldn't be under removal, while another floor was in the cleaning stage or clearance stage, unless work area segregation occurs per floor or group of*

*floors. The single work area approach should be revisited before the work plan is finalized.*

The entire Building will be placed under one modified full containment. However, remediation operations will occur in blocks of three floors at a time. The entire Building will be cleared at the end of all remediation operation, also in three floor blocks. For details on simultaneous work procedures, please refer to Section 6.6 of Regulatory Submittal Part I(R) – Remediation Operations Work Plan.

- 6.3.5 Removals

*SC13) This section includes procedures not in compliance with the current ICR 56. As previously indicated, if procedures must be specified that aren't consistent with ICR 56 requirements, a site-specific variance must be obtained by the project designer as an agent for the owner, and the procedures and conditions contained within the site specific variance decision must be incorporated into the work plan specified asbestos project procedures.*

Refer to Section 6.0 for details on removals. These procedures will require Site Specific Variance approval. A Site Specific Variance Petition will be submitted as Attachment II of Regulatory Submittal Part I(R) – Remediation Operations Work Plan.

- 6.4 OPERATION IV – IN PLACE ACM

*SC14) No information is apparent within this section regarding the ACM window caulking at the elevator mechanical room roofs, or the ACM window frame caulking at the first floor exterior of the building. These materials were identified within Report Attachment IV, Table 1 “Summary of Inspection Results for Asbestos”. In addition, ACM floor covering materials are included, but nothing is included regarding the floor covering adhesives/mastics. These materials should also be assumed and treated as ACM, unless appropriate bulk sampling and analyses adequately show the materials to be non-ACM.*

Window Caulking: For details regarding the removal of ACM window caulking refer to Section 6.13.4 of Regulatory Submittal Part I(R) – Remediation Operations Work Plan. Window caulking on the First Floor exterior will be incorporated into the forthcoming revised Regulatory Submittal Part I(S) – Scaffold Erection Operation Work Plan. It has been determined that it should be removed during other exterior work on the First Floor Level.

Mastics are currently being sampled to determine composition. If mastics contain more than 1% asbestos these materials will be removed as ACM and incorporated into Regulatory Part I(R) –Remediation Operations Work Plan.

*SC15) Regardless of the listed ACM's, as previously indicated if procedures must be specified that aren't consistent with ICR 56 requirements, a site-specific variance must*

*be obtained by the project designer as an agent for the owner, and the procedures and conditions contained within the site-specific variance decision must be incorporated into the work plan specified asbestos project procedures.*

A Site Specific Variance Petition will be submitted by PAL Environmental Safety Corp. Project Designer Aric Domozick (Certificate No. 92706-5) as Attachment II of Regulatory Submittal Part I(R) – Remediation Operations Work Plan. All conditions of the Site Specific Variance will be incorporated into the Work Plan.

- 7.3 SCAFFOLDING

*SC16) A “Deconstruction and Scaffold Layout Plan” was referenced within this section, but not apparent within the documents”. The document detailing all appropriate procedures for this work must be included with the work plan.*

Refer to Section 6.1 of previously submitted Regulatory Submittal Part I (S)-SEO Work Plan.

- 7.5 DEMOLITION SEQUENCE

*SC17) No information was apparent in this section regarding sequencing of removals, cleaning and clearance at the contaminated elevator shafts or other remaining contaminated utility areas, prior to commencement of the general deconstruction of the building.*

Elevator shafts and utility areas will be fully decontaminated during the Remediation Operations.

For details regarding the remediation of elevator shafts refer to Section 6.14 of Regulatory Submittal Part I(R) – Remediation Operations Work Plan.

For details regarding the remediation of utility areas refer to Section 6.15 of Regulatory Submittal Part I(R) – Remediation Operations Work Plan.

- 7.6 WASTE MANAGEMENT – CONVENTIONAL DEMOLITION

*SC18) The only information regarding exterior ACM removals included a generalized statement that the non-friable asbestos spandrel flashing would be removed during “conventional demolition”. No information was apparent in this section regarding specific asbestos project details for all the exterior ACM removals, which must be completed prior to commencement of the general deconstruction of the building.*

The exterior ACM materials present are as follows:

Spandrel Mastic: For information regarding the removal of ACM spandrel mastic, refer to Section 6.19. This material will be removed during the deconstruction activities due to

the need to perform selective structural demolition for access. A work plan detailing deconstruction activities will be made under separate cover.

Roofing Membrane: For details regarding the removal of ACM roof membrane refer to Section 6.13.5 of Regulatory Submittal Part I(R) – Remediation Operations Work Plan.

VAT (Gash Area) Floors: Eleven, Twelve & Fourteen: For details regarding the removal of VAT in the Gash Area refer to Section 6.12 of Regulatory Submittal Part I(R) – Remediation Operations Work Plan.

Window Caulking: For details regarding the removal of ACM window caulking refer to Section 6.13.4 of Regulatory Submittal Part I(R) – Remediation Operations Work Plan. Window caulking on the First Floor exterior will be incorporated into the forthcoming revised Regulatory Submittal Part I(S) – Scaffold Erection Operation Work Plan. It has been determined that it should be removed during other exterior work on the First Floor Level.

The Department anticipates that these issues will be appropriately addressed within revised versions of these documents. If you have any questions regarding these comments please contact our office at (518) 457-1536.

Sincerely,

Christopher G. Alonge, P.E.  
Senior Safety and Health Engineer

Cc: Krish Radhakrishnan, P.E. - NYC DEP  
Gil Gillen – USDOL/OSHA  
Robert Iulo – NYC DOB  
Richard Fram – NYS DEC  
Norma Aird – NYS DOL  
05-0919

**OSHA Comments on:  
Regulatory Submittal Part I  
Work Plan**

General Comments:

1. In general, OSHA does not review contractor plans outside the scope of an inspection or formal partnership agreement. Due to the high profile nature of certain projects surrounding the WTC site, OSHA has provided these comments to EPA as technical assistance in the preparatory phase of the project. Employers are not required to submit plans to us, nor does OSHA's review constitute acceptance or endorsement. Whether DASNY/CUNY chooses to make changes or not, their actual plan in place during any inspection is what will determine whether or not they are in compliance.

OSHA comments have been taken into consideration during the preparation of Regulatory Submittal Part I(R) – Remediation Operations Work Plan

2. The HASP is written to address asbestos abatement and/or HAZWOPER. It is extremely light and lacking in regards to demolition activities. Part I states that the HASP is a “site-specific Preliminary HASP,” however it is not very site-specific and it has too many placeholders (or references) to be able to fully evaluate the worker safety & health protection within the document.

Regulatory Submittal Part I(R) - Remediation Operations Work Plan is being submitted at this time to provide details of the decontamination procedure that will be implemented in order to ready the Building for demolition.

The DASNY/CUNY HASP was intended for use up until the point that a contractor took control of the site (through the Investigation Phase).

Please refer to Regulatory Submittal Part III(R) - Remediation Operations Health and Safety Plan for details regarding worker safety and health protection during the decontamination procedure.

This HASP is intended for use by all site personnel and visitors after the contractor takes control of the site.

**Regulatory Submittal Part I – Work Plan:**

Section 7.3 Scaffolding

3. Part I is very limited in terms of implementing worker safety & health protection. For example, the section on scaffolding (Section 7.3) discusses what might be needed, but not how to install it. More than half of the section addresses the ACM Spandrel and the NYS

DOL Variance. It appears the consultant focused only on the asbestos/COPCs aspects of the project.

See previously submitted Regulatory Submittal Part I(S)-Scaffold Erection Operation Work Plan for all details regarding the installation of the exterior pipe scaffolding system.

See Regulatory Submittal Part III(S) – Scaffold Erection Operation Health and Safety Plan to view details regarding worker safety during the installation of the exterior pipe scaffolding system.

#### Section 7.5 Demolition Sequence

4. This section which discusses material being “pushed down abandoned shafts and dropped to the cellar level” appears to contradict with Section 7.2 which states a “limitation on free- fall of demolition debris.”

No material will be pushed down or allowed to fall down any shaft at any time. Please refer to Sections 6.10 & 6.14 of Regulatory Submittal Part I(R) – Remediation Operations for a statement regarding shaftways.

5. In addition, how will employees be protected from falling into these “abandoned shafts,” and how will employees below be protected from being struck by falling objects? Please clarify.

Please refer to Sections 6.10 & 6.14 of Regulatory Submittal Part I(R) – Remediation Operations for information regarding fall protection.

Also, refer to Fall Protection section of Regulatory Submittal Part III(R) – Remediation Operation Health and Safety Plan.

Please see the above response to OSHA comment No. 4 regarding material being dropped down shafts. Please note that no material will be pushed down or allowed to fall down any shaft at any time.

**OSHA Comments on:**

***Regulatory Submittal Part III – HASP:***

*Emergency Plan*

6. The Emergency Plan appears to deal with dust minimization, not emergency procedures. It is unclear how the following two bullet items noted for protecting workers potentially exposed to building contaminants are useful protective measures: (1) “A. 2. Avoid ingesting dust”; and, (2) “A. 3. Avoid inhaling dust”. Similarly “B.1. limit activities that promote transport of dust” is vague and unhelpful. Please clarify and explain how they relate to an “emergency plan”.

Refer to revised Emergency Plan Section A, Item 2 on Page 46 and Section B, Item 1 on Page 47 of Regulatory Submittal Part III(R) HASP.

7. Under the title, “Minimize Potential Public Contact” the first bullet item states, “limit access using barricades, temporary fencing, and “jersey barriers””. Is Airtek proposing to place or move emergency barriers during the scope of a building evacuation since this is under the emergency plan? The scope for a complete building evacuation is listed as a “note” on the bottom of the page. It implies that a building evacuation will occur in the case of a structural collapse. It appears that such a scenario is not the time to worry about jersey barriers. Please clarify. It also states that a building evacuation would occur for “certain power failures” which is subjective without defining the criteria. Please clarify.

Refer to revised Section 17.6, Emergency Plan Item C, Item 1 on Page 47 of Regulatory Submittal Part III(R) HASP. The use of “jersey barriers” would be subsequent to building evacuation and the words “re-entry to the site using “jersey barriers” if necessary” has been added.

Refer to revised Section 17.4 on Page 45 of Regulatory Submittal Part III(R) HASP. The paragraph “The criteria for defining the need for building evacuation in the case of “certain power failures” would be the extent or duration of the failure. An example would be that a “total power failure” may require building evacuation for the safety of the workers if a repair was not immediate.” has been added.

8. The designated assembly area is vague and should be given by cross-street, not “north of the new subway entrance”.

Refer to Section 17.6 Emergency Plan opening paragraph on Page 46 of Regulatory Submittal Part III(R) – HASP. Also, refer to Attachment # 6 for maps of the primary and alternate assembly locations.

9. For reporting emergencies, it states that “all site personnel...shall immediately call 911”. Airtek may wish to re-word this section since it implies that all personnel on site would be attempting to contact 911.

Refer to Reporting Emergencies on Page 48 of Regulatory Submittal Part III(R) HASP, the word “all” has been changed to “any”.

10. Do not believe the section titled, “D. Disposal,” is an emergency response activity.

Refer to Section D, Disposal on Page 47 of Regulatory Submittal Part III(R) HASP. This section would be applicable if, in the case of an emergency, personnel have to evacuate without using proper decontamination procedures, then PPE would have to be collected and disposed of in accordance with the appropriate regulations.

#### Section 4.2.1 Heat Stress

11. 77 degrees is listed as the “best” temperature for rest areas. How will this be established and monitored? How was this temperature established as the “best” temperature? Please clarify.

Refer to Section 4.2.1 on page 14 of Regulatory Submittal Part III(R) HASP. The references to specific temperature have been deleted.

#### Section 4.2.2 Cold Stress

12. The first aid for frostbite seems out of place. Why was it listed while all other injuries were not? The treatment listed includes warming for 30 minutes, but also getting “immediate medical care”. EMS should be summoned via 911, and will certainly be onsite in less than 30 minutes; otherwise the patient can be transported to the hospital identified in the HASP as being less than a mile away.

Refer to Section 4.2.2 on page 15 of Regulatory Submittal Part III(R) HASP. The references to frostbite have been deleted.

#### Section 4.2.3 Electrical Hazards

13. Please clarify if there are any overhead power lines in the vicinity of the building. What about the building utilities? They are a far more likely source of electrical hazards during deconstruction than downed overhead power lines and electrical wires. Please clarify.

Refer to Section 4.2.3 on page 15 of Regulatory Submittal Part III(R) HASP. Please note that there are no overhead power lines in the vicinity of the Remediation work area.

The Field Team Leader and/or CSO will notify Site personnel during the safety meetings of the locations of known underground cables, utilities and active electrical equipment such as temporary electric, electrical risers, basement electrical rooms or vaults, elevator equipment or other areas not de-energized” has been added.

#### Section 4.2.5 Overt Chemical Exposure

14. Why does Airtek believe this category of exposure warrants first aid instructions? This section is supposed to address physical hazards while chemical hazards were addressed in Section 4.1. Please clarify.

Refer to Section 4.1.1 on page 14 of Regulatory Submittal Part III(R) HASP. Some instructions are provided on the removal residual chemicals from the surface of the skin in order to prevent further injury prior to seeking medical attention.

#### Section 4.3.2 Emergency Medical Treatment

15. Why is this section separate from Section 16.4 (Medical Emergency)? No where in this paragraph were 911 mentioned.

Refer to Section 4.3.2 on page 17 of Regulatory Submittal Part III(R) HASP. "Refer to Section 17.6 for the Emergency Plan." has been added.

16. If individuals are designated to provide first aid/CPR, this may trigger the need for the employer to establish an Exposure Control Plan (ECP) if this is part of their duties (as opposed to acting as a Good Samaritan).

Refer to Attachment 7-Bloodborne Pathogens and Exposure Control Plan on page 59 of Regulatory Submittal Part III(R) HASP.

17. Note that there are some exceptions in the OSHA regulations, which might permit Hep B vaccination post incident, but the program needs to be established up front. This is touched on in Section 16.4.3, but still not enough to be an actual plan. For example, it states that "personnel shall use procedures and PPE that minimize the potential for exposure". The ECP needs to address those specifically.

Refer to Attachment 7-Bloodborne Pathogens and Exposure Control Plan on page 59 of Regulatory Submittal Part III(R) HASP.

#### Section 5.5 Safe Work Permit

18. The text in Section 5.5 does not match the header of "Safe Work Permit" since it only addresses training and recognition of these "special work conditions", not the need, format, or procedure for a permit.

Refer to revised Section 5.5 on page 23 of Regulatory Submittal Part III(R) HASP for deletion.

19. Section 5.5 of the HASP is also the only mention of confined spaces which could be an issue in cleaning duct work or other areas, as well as deconstruction of certain building components (especially mechanical systems). This should be addressed specifically.

Refer to revised Section 5.5 on page 23 of Regulatory Submittal Part III(R) HASP

Section 6.5 Site Security

20. Please clarify why site security (Section 6.5) is under Section 6.0 (Communications). The control measures include safety items.

Section has been re-located. Refer to Section 2.3 on page 10 of Regulatory Submittal Part III(R) HASP.

Section 8.0 Engineering and Administrative Controls

21. The HASP is very lacking on addressing safety items pertaining to the demolition of a multi-story building. For example, Section 8.0 mentions only one item pertaining to the non-abatement type activities being conducted at the building, “Barricades, railings, or other devices to prevent employee exposure to fall hazards or moving equipment (29 CFR 1926).”

Refer to Section 8.0 on page 30 of Regulatory Submittal Part III(R) HASP. Demolition work is not part of the Remediation. A separate HASP will be submitted at a later date for Demolition work.

Section 9.0 Personal Protective Equipment

22. The need for Level B protection for jack hammering of concrete is probably over protective. This is not a unique task, and exposures that far above the PEL as to exceed the protection factor of a PAPR are unlikely.

Refer to Section 9.0, Page 31 of Regulatory Submittal Part III(R) HASP. Please note that jack hammering will not be necessary during Remediation.

Section 11.2 Operational Precautions

23. Please define what is meant by “extremely hazardous entries.” What criteria will be used?

Section revised and terminology removed. Refer to Section 11.2 on page 35 of Regulatory Submittal Part III(R) HASP. Extremely hazardous entries referred to confined space entries. Confined space entry will not take place during Remediation.

24. Which “off-site personnel” will provide emergency assistance? Does this mean Emergency Services? Does it mean a contractor not on site? Does it mean off-duty employees will be recalled? Please clarify.

Refer to Section 11.2 on page 35 of Regulatory Submittal Part III(R) HASP. Off-site Contractor, Consultant and Subcontractor personnel provide emergency assistance. If the situation requires, emergency services should be summoned to the site by calling 911.

25. This section accurately states that “warning signals for site evacuation must be established”. What are they? This HASP is the vehicle to describe them.

Refer to Section 11.2 on page 35 of Regulatory Submittal Part III(R) HASP. Warning signals for site evacuation would be through three (3) air horn alerts.

26. “Frequent and regular inspections” are required under the standard. The HASP should define how the employer will comply with the standard, not just repeat the requirement and say it will be met. Anything less than once a day on a demolition site would probably be deficient.

Refer to Section 11.2 on page 35 of Regulatory Submittal Part III(R) HASP. “frequent and regular inspection” has been deleted.

#### Section 13.0 Fire Control Equipment

27. What is “an adequate number of ... fire extinguishers”. How about listing the size (i.e., 10-pound ABC, etc.) and distribution (i.e., every 75’)? Again, the HASP is supposed to define the contractor’s site specific plans for compliance.

Refer to Section 14.0 on page 41 of Regulatory Submittal Part III(R) HASP. An adequate number of approved portable fire extinguishers (class rated A, B and C and a minimum of 10 pounds) shall be readily available at the Site at all times. A minimum of two (2) fire extinguishers per floor of the Building during Remediation will be provided for this operation. All fire extinguishers shall have current inspection tags.

28. This section states, “All Site personnel shall be trained in the use of the extinguishers.” This conflicts with the fire & explosion instructions in Section 16.1 which states that the building will be evacuated. This needs to be clarified and the discrepancy resolved. Section 13.0 states that “extinguishers shall only be used on outbreak stage fires”. The correct term is “incipient stage”, and does this mean that they will delay evacuation until the fire is no longer incipient? Please clarify.

Refer to Section 14.0 on page 41 of Regulatory Submittal Part III(R) HASP. All Site personnel shall be trained in the use of the extinguishers. Extinguishers shall only be used on incipient stage fires or fires of minor nature. The local fire department shall be contacted in the event of a fire. The building will be evacuated in all cases until a decision about re-entering has been made by the CSO.

#### Section 14.1 Container Labels

29. The first and third bullet points are duplicated. This section is supposed to be a page and a half of text describing hazard communication, although it's still not a hazard communication program. Develop a compliant hazard communication program.

Refer to Section 15.0 on page 42 of Regulatory Submittal Part III(R) HASP. A Hazard Communication Program has been added.

#### Section 15.0 Electrical Lockout/Tagout

30. What about mechanical and other forms of residual energy? Building elevators, mechanical systems, pipes, and more can all result in the unexpected release of energy. This section states that "Specific procedures and permitting requirements will be specified in the HASP..." Since this is the HASP it should be in this HASP.

Refer to Section 16.0 on page 43 of Regulatory Submittal Part III(R) HASP.

#### Section 16.1 Fire or Explosion

31. For the building evacuation (already addressed above), how about a head count for employee accountability? Also, need to address the use of the fire extinguishers which will be provided per Section 13.0. What is the employer's policy regarding their use – may any employee use them, only designated employees, or no one? If everyone may use one, since Section 13.0 states that all site personnel will be trained, where is that in the four steps listed in Section 16.1? Please clarify.

Refer to Section 17.6 on page 46 of Regulatory Submittal Part III(R) HASP. Refer to the 1<sup>st</sup> paragraph.

Refer to Section 17.3 on page 45 of Regulatory Submittal Part III(R) HASP. The paragraph "All Site personnel shall be trained in the use of the extinguishers. Extinguishers shall only be used on incipient stage fires or fires of minor nature. The local fire department shall be contacted in the event of a fire. The building will be evacuated in all cases until a decision about re-entering has been made by the CSO." has been added.

#### Section 16.2 Power Failure

32. Still does not list the circumstances when the building will be evacuated per the "note" in the emergency plan which states that certain power failures will require a complete building evacuation.

Refer to Section 17.4 on page 45 of Regulatory Submittal Part III(S) – HASP, the paragraph "The criteria for defining the need for building evacuation in the case of "certain power failures" would be the extent or duration of the failure. An example would

be that a “total power failure” may require building evacuation for the safety of the workers if a repair was not immediate.” has been added

Section 16.3 Structural Failure

33. This section emphasizes the steps to be taken with regards to the containment areas but at the exclusion of any safety component. This plan states that in the event of an “unanticipated structural failure” that after calling 911 (“if warranted”), the contractors will focus on containment isolation activities and maintaining the isolation barriers. What about evacuation, personnel accountability, engineering assessment, and shoring up the structure?

Section revised. Refer to Section 17.5 on page 45, Item 2 addresses evacuation-  
“Coordinate the safe exit of any personnel in the Remediation work area.”

Refer to Section 17.5 on page 45, Item 5 addresses engineering assessment-“Reentry into the Building following any structural failure will not be allowed until the Owner’s engineer has inspected the area and determined that it is safe to do so. If the conditions of evacuation require emergency responders (police, fire department, EMS) to be summoned to the Site, reentry to the work area must first be approved by the responders before any CSO or engineer determinations may be made.”

Added to this in Item 6 regarding shoring is “Based on engineering assessments, any shoring requirements will be addressed.”

**EPA Comments on:**

**Regulatory Submittal Part IV  
Waste Sampling and Management Plan  
Remediation and Deconstruction of  
Fiterman Hall  
30 West Broadway  
New York, New York  
Dated January 10, 2006**

Section 2.0

1. Airtek should indicate which of the anticipated waste streams described in this section are considered porous materials and which are considered non-porous materials. The waste sampling and management approach for the porous and non-porous materials should be clearly defined in Part IV.

A list of items considered by the contractor to be “Non-porous Materials” is included in Section 2.7 of Part IV(R). All other items to be removed during the Remediation Phase are considered “not cleanable,” and will be treated as ACM at a minimum. The designation “non-porous” does not automatically indicate that the items are cleanable. The contractor must demonstrate that the items can be effectively cleaned and inspected. Items deemed by the Owner’s Environmental Consultant to be not cleanable and/or not inspectable will be wrapped and disposed as ACM waste. This is further discussed in *Regulatory Submittal Part I(R) – Remediation Work Plan* and is referenced in Section 3.2 of *Regulatory Submittal Part IV(R) – Remediation Phase Waste Sampling and Management Plan*.

2. Part IV should state that all porous materials will be disposed of as asbestos waste at a minimum and managed and disposed of according to the results of the waste classification sampling.

Part IV(R) states this in several sections, including Section 1.3.

3. Part IV should discuss the waste sampling and management approach to be taken with the exterior mesh/netting currently on the building.

This was addressed in the Scaffolding Submittal.

4. Part IV should discuss the waste sampling and management approach to be taken with any sprayed-on fireproofing, if it was used in the building.

Sprayed-on fireproofing is newly-installed (2001), was tested for ACM content, and is not ACBM. It is, however, considered porous, and as such will be removed under containment as ACM waste during the Remediation Phase during the work described in

Part I(R) Sections 6.1.4 and 6.9. Sprayed-on fireproofing is also included in Part IV(R) Section 2.1.

### Section 2.1

5. Remove “Regulated” from title of Section 2.1.

The word “Regulated” has been removed from the title of Section 2.1.

6. Only Section 2.1 mentions “lead-painted building materials.” Part IV should discuss the waste sampling and management approach to be taken for this waste stream as was done for the other waste streams specified in Part IV.

Only limited lead-painted materials exist within the building. The paint on one fender post in the loading dock, a ceramic sink in the basement, and the paint on one section of red column plaster on the east side of the 4<sup>th</sup> floor will be removed, packaged, transported and disposed at Clean Earth of New Jersey as described in Part I(R), and noted in Part IV(R) Section 9.0.

### Section 2.2

7. Wash-down water/liquids should be noted as a waste stream category in this section, and any other relevant section of Part IV. Part IV should describe how wash-down water/liquids will be collected, contained, characterized, stored, and disposed of depending on its sampling results.

Control and collection of Process Liquids are discussed in detail in Part I(R) Sections 6.10, 6.13, and 6.14, and in Part IV(R) Section 4.3. This item was also discussed in the Scaffold Submittal.

### Section 2.3

8. Part IV discusses two phases, a remediation phase and a deconstruction phase. Part IV states that the remediation phase of the project includes the removal of all interior surfaces and non-structural elements within the building, and the cleaning and encapsulation of all remaining structural elements under containment while the deconstruction phase entails the deconstruction of the remaining cleaned and encapsulated structural concrete and steel components, and the steel and masonry façade. However, the materials specified under Section 2.3 titled “Deconstruction Waste” imply that these materials will be removed during the deconstruction phase. In fact, based on the definition of the two phases to be conducted for this project, these materials will be dealt with during the remediation phase. This section needs to be clarified or the title rewritten to clarify that these materials will be handled during the remediation phase, or alternatively, a distinction should be made about what materials will be handled under each phase.

This has been clarified. The term “Deconstruction Waste” has been removed.

9. It is recommended that either Section 2.3 or Section 2.6, and any appropriate subsequent sections of Part IV, include the proper handling and final disposal of lead-sheathed electrical wiring and mercury-containing electrical switches.

The building wiring systems were brand new in September of 2001. No lead-sheathed electrical wiring exists. Switches and thermostats are addressed in Part IV(R) Sections 2.4, 4.4, and 6.4.

10. Elevators should be added to the list of deconstruction waste streams.

Elevators and other heavy machinery are addressed in Part IV(R) Sections 2.9, 4.9, and 6.9.

#### Section 2.5

11. It is recommended that the following ***bold italic*** language be added to the following sentence: “The category may include fluorescent lighting ballasts ***and potting*** material and caulking products.”

Suggested wording added to Part IV(R) Sections 2.4 and 4.4.

12. It is recommended that the following language be added to this section: “If 50 ppm or more PCBs are detected in the waste stream the materials will be classified as both federal Toxic Substances Control Act (TSCA) waste and New York State hazardous waste.”

Suggested Language has been added to Section 3.2 of Part IV(R).

#### Section 2.6

13. This section indicates that a variety of construction materials are cataloged in Attachment A (Building Contents Inventory & Chemical Log). Attachment A does not detail any construction materials, but only discusses chemicals found throughout the building. Construction materials (e.g., saws, drills, etc.) should be defined in Part IV and the waste sampling and management approach for this waste stream should be described in Part IV.

No power tools are known to exist at the site. Such items, if encountered, are not cleanable and will be wrapped and handled as ACM waste.

#### Section 2.8

14. This section states that the interior materials will have been decontaminated as part of the Remediation Phase. This implies that the interior materials will remain in the building at the end of the Remediation Phase and will be removed during the

Deconstruction Phase. It is our understanding that all of the interior materials will be removed and disposed of properly during the Remediation Phase and only the structural shell will remain for the Deconstruction Phase. Please clarify.

The original intent of this section was to refer to the interior surface of the structural elements that will remain for the Deconstruction Phase. The comment raises a point, however, as certain non-cleanable heavy machinery and equipment may have to be left to be rigged out of the structure during the Deconstruction Phase. This is discussed in further detail in Part I(R) Sections 6.13.2 and 6.19, and in Part IV(R) Sections 2.9, 4.9 and 6.9.

15. Please clarify if the windows in the building are of the type that was manufactured with selenium as an ingredient to reduce solar heat.

The window manufacturer, Moduline Windows of Wausau, Wisconsin has confirmed that no selenium was used in the manufacture of the windows at Fiterman Hall.

### Section 3.0

16. Strike-out “i.e., the Deconstruction Waste listed in subsection 2.3 above” in the first bullet item and replace with “e.g., the Deconstruction Waste listed in subsection 2.3, ACBMs noted in subsection 2.1, and miscellaneous contents noted in subsection 2.6.”

Section has been re-written based on waste characterization results presented to EPA in July 2006 and included as Attachment D. Comment is no longer applicable.

17. Recommend replacing “deconstruction waste” with “waste material” in the second bullet item.

The term “deconstruction waste” is no longer used.

18. It is recommended that the following ***bold italic*** language be added to the third bullet item: “Where analytical results indicate that dust in a portion of the building is classified as a particular category of regulated waste, then dust-impacted materials in that portion of the building will be likewise classified ***as that particular category of regulated waste*** until and unless testing indicates otherwise.

Section has been re-written based on waste characterization results presented to EPA in July 2006 and included as Attachment D. Comment is no longer applicable.

19. The end of the third bullet item currently states: “...that dust-impacted materials in that portion of the building will be likewise classified until and unless testing indicates otherwise.” Please clarify in this section whether an additional phase of sampling will be conducted and, if so, where the sampling scheme for this subsequent sampling can be found in Part IV.

Section has been re-written based on waste characterization results presented to EPA in July 2006 and included as Attachment D. Comment is no longer applicable.

20. It is recommended that the following ***bold italic*** language be added to this sentence since this section states that the dust will be sampled for total PCBs: “Any material suspected ***of being*** hazardous waste or ***another*** RCRA–regulated ***or TSCA-regulated*** waste will be tested and evaluated based on its composition.”

Section 3.0 – Uncharacterized Waste now includes the suggested language.

21. It is recommended that the first sentence of the second to last paragraph on page 7 be re-written to read: “All potentially hazardous waste will be managed as hazardous waste unless analytical results prove otherwise.”

The first sentence of the third paragraph of Section 3.0 includes the recommended language.

22. Please confirm if “NELAC” is the appropriate acronym to use with regard to labs accredited in NYS or if it is “ELAP (Environmental Laboratory Approval Program).”

It is ELAP, and has been corrected.

#### Section 4.1

23. The grab samples for dust should be representative of both porous and non-porous building materials per floor. Please clarify how Airtek plans to achieve this (e.g., certain number of grabs per porous material, per non-porous material).

All materials, both porous and non-porous are assumed to be contaminated with WTC dust.

24. It is recommended that the following language, “a minimum of,” be added before “five grab samples.”

Recommended language has been added where appropriate in Section 4.0 of Part IV(S).

25. Please clarify the approach to be taken if a sufficient quantity of dust per floor per composite sample cannot be collected (e.g., establish an order of precedence for analyzing for RCRA characteristics).

Sufficient dust was collected via HEPA vacuuming.

26. It is recommended that the following ***bold italic*** language be added to this sentence since this section states that the dust will be sampled for total PCBs: “Where analyses indicate that the dust exceeds RCRA criteria for any one RCRA characteristic ***or applicable PCB concentration***, materials potentially impacted by the dust will be assumed to exceed that specific RCRA characteristic ***or PCB concentration*** unless

testing proves otherwise *and will be handled and disposed of according to their waste characterization results.*

Section has been re-written based on waste characterization results presented to EPA in July 2006 and included as Attachment D. Comment is no longer applicable.

27. The end of this section states the following: “Details of the representative composite sampling to be conducted in response to the results of the dust characterization will be the subject of a revised WSMP to be submitted upon completion of the dust characterization study.” Specific details on the representative composite sampling for all porous and non-porous materials should be submitted with the next revised draft version of Part IV. If it needs to be revised at a later date, the owner may submit an amendment to the plan discussing the reasons for the revisions for the regulators to review.

Section has been re-written based on waste characterization results presented to EPA in July 2006 and included as Attachment D. Comment is no longer applicable.

28. Please clarify if waste classification of the roof will be occurring.

Waste Characterization of Roof Ballast is discussed in Part IV(R) Section 3.1 and 4.6.

#### Section 4.2

29. Sections 4.1 and 5.0 imply that sampling for total PCBs would be conducted for waste streams. However, Section 4.2 only discusses characterizing the waste stream based on the RCRA parameters. Please clarify.

Section 3.2 of Part IV(R) has been edited for clarity.

30. This section states the following, “A minimum of three grab samples will be collected at random from 10% of the packages (bags/drums) of this class of material. Grab samples from every five packages sampled will be composited for analysis.” Please clarify the connection between these two sentences since there seems to be a disconnect between being able to composite samples from every five packages/class of material and randomly grabbing the samples from 10% of the packages.

This protocol has been revised based on waste characterization results presented to EPA in July 2006 and included as Attachment D. Section 4.0 of Part IV(R) has been edited for clarity.

#### Section 4.3

31. It is recommended that the following *bold italic* language be added to the following sentences since this section states that the dust will be sampled for total PCBs: “Where analyses indicate that the dust exceeds RCRA criteria for any one RCRA characteristic *or applicable PCB concentration*, deconstruction waste materials potentially impacted by the dust, as determined by the Environmental Consultant will be assumed to exceed that

specific RCRA characteristic *or PCB concentration* unless testing proves otherwise *and will be handled and disposed of according to their waste characterization results.*

Within any floor of the building where dust exhibits RCRA-regulated *or TSCA-regulated* levels of contamination, representative composite sampling of deconstruction waste will be conducted. Analyses will be for only the specific RCRA characteristic *or PCB characteristic* that was noted in the dust characterization study.”

Section has been re-written based on waste characterization results presented to EPA in July 2006 and included as Attachment D.

32. More specific details should be provided on the representative composite sampling scheme discussed in the last paragraph and disposal options based on the results of the sampling.

Section has been re-written based on waste characterization results presented to EPA in July 2006 and included as Attachment D. Section 4.0 of Part IV(S) has been edited to provide further detail.

#### Section 4.5

33. Prior to containerizing ballasts, the surfaces of ballasts and the light fixtures that they are removed from should be cleaned of dust and specified in Part IV.

Section 6.5 has been edited to include the recommended procedure.

34. Please clarify if representative samples from all caulking materials will be collected and analyzed. The characterization report seems to indicate that some sampling of caulking may have already occurred for the building. For instance, Part I states that stair bulkheads at the roof level have older windows that contain ACM caulk, and caulking related to elevators is mentioned in one of the plans. It is unclear if this category of caulking will be included in the sampling discussed in Section 4.5. It is recommended that Part IV be revised to incorporate the waste sampling and management approach to be taken for caulking materials (such as, but may not be limited to, the characterization/analytical method to be used, and final disposal options to be taken for caulking known and/or found to contain PCBs in excess of 50 ppm).

All suspect PCB caulking was tested for PCBs. Results are discussed in Section 3.1.4.

#### Section 4.6

35. Sections 4.1 and 5.0 imply that sampling for total PCBs would be conducted for waste streams. However, the second to last paragraph of Section 4.6 only discusses characterizing the waste stream based on the RCRA parameters. Please clarify.

Section 3.2 of Part IV(R) has been edited for clarity.

36. Since Section 3.0 and 4.1 states that the dust will be sampled for total PCBs, it is recommended that the following ***bold italic*** language be added to this sentence: “Materials similar in composition and WTC impact to those sampled would not be sampled for Resource Conservation and Recovery Act (RCRA) ***or PCB*** characteristics unless there is an independent concern that they might be hazardous waste due to the inherent composition of the component, subcomponent or waste stream.

Section 3.0 of Part IV(R) now includes the recommended language.

#### Section 4.7

37. “Cleanable” should be removed from the title of this section and Section 2.7 (and the Table of Contents) since these sections discuss managing non-porous materials that are both cleaned and not cleaned.

“Cleanable” has been removed.

38. Part IV does not provide specific details on how the non-porous waste streams will be managed, classified, stored, and disposed of, based on the two options provided in Section 4.7. Revise Part IV to include this information.

Handling of non-porous materials that are cleaned is addressed in Part I(R) Sections 6.7.1 and 6.7.2, and in Part IV(R) Sections 2.7, 4.7, 6.7 and 6.9.

39. What approach will be taken for non-cleaned, non-porous waste items if the dust characterization was not conclusive at the original location in the building for the specific class of material in question?

The dust testing was conclusive in all areas.

#### Section 4.8

40. More specific details should be provided on the representative composite sampling scheme and disposal options based on the results of the sampling.

Attachment D to Part IV(R) provides detail on the waste sampling conducted.

41. This section indicates that the initial characterization of the structure and façade will be based on the initial dust classification sampling. It is not clear from Part IV that the initial dust classification sampling will encompass structure and façade materials. Please clarify in Part IV.

Section 4.1.4 of Part IV(S) (Scaffold Submittal) discussed this.

42. It is recommended that the following ***bold italic*** language be added to the following sentences since the dust characterization sampling specified in Sections 3.0 and 4.1 discusses sampling for total PCBs: “Where analyses indicate that the dust exceeds RCRA criteria for any one RCRA characteristic ***or applicable PCB concentration***, structure and facade waste materials potentially impacted by the dust will be assumed to exceed that specific RCRA characteristic ***or PCB concentration*** unless testing proves otherwise.

Section 3.2 of Part IV(R) has been edited to reference PCB testing.

Within any floor of the building where dust exhibits RCRA-regulated ***or TSCA-regulated*** levels of contamination, representative composite sampling of structure and façade waste will be conducted. Analyses will be for only the specific RCRA characteristic ***or TSCA characteristic*** that was noted in the dust characterization study.”

Section has been re-written based on waste characterization results presented to EPA in July 2006 and included as Attachment D.

#### Section 5.3

43. It is recommended that the following language be added to the end of the corrosivity section: “National Association of Corrosion Engineers (NACE) Standard TM-01-69 as standardized in SW-846 shall be utilized to evaluate corrosion rate if the suspected corrosive hazardous waste is a liquid.”

Recommended language has been added to Section 5.2.2 of Part IV(R).

#### Section 5.5

44. It is recommended that the following ***bold italic*** language be added to the beginning of the following sentence at the end of page 12: “The results of RCRA ***and PCB*** characteristic analyses...”

Section 3.2 of Part IV(R) has been edited to reference PCB testing.

#### Section 6.0

45. Please clarify where asbestos waste will be stored in Figure WS-1 of Attachment C (Waste Storage Areas).

Waste Storage locations for the Remediation Phase are included in Part IV(R) Attachment B.

46. Please clarify what “Phase I Waste Holding Area” pertains to in Figure WS-1 of Attachment C since the plan only discusses two phases: remediation and deconstruction.

Part IV(R) in general, and the figure in Attachment B address only the Remediation Phase work.

47. Please identify the loading area/dock(s) on Figure WS-1 of Attachment C where waste will be transported off-site.

Loading docks are identified in Attachment B.

48. Please ensure that floor drains proximate to, as well as within, the waste storage/staging areas will be sealed and isolated and note this fact in this section.

All building floor drains will be identified and sealed to control process water. This includes drains, if any, proximate to and within the waste storage area and loading docks. This is noted in Part IV(R) Section 6.0.

49. Section 6.0 (Waste Packaging and Storage) should include a subsection which discusses the storage requirements for wash-down water/liquids.

Subsection 6.3 (Liquid Waste) has been added to of Part IV(R).

50. This section should describe the final disposal options for those material categories in Section 2.0 that are not deemed an asbestos waste, hazardous waste, universal waste, or PCB waste in Section 6.0 (e.g., C&D waste, recycled, etc.)

Subsection 6.8 (Conventional (C&D) Waste) has been added to Part IV(R). A C&D waste facility is listed in Section 9.0.

#### Section 6.2

51. This section states that PPE and remediation process consumables will be stored as ACM waste at a minimum while awaiting the results of hazardous waste characterization sampling. Section 6.1 states that the storage of asbestos waste will not exceed 50 cubic yards. Are there any concerns about exceeding the 50 cubic yards storage limit for asbestos waste while the PPE and remediation process consumables is stored on-site awaiting the sampling results for the hazardous waste characterization from the lab(s)?

Section has been re-written based on waste characterization results presented to EPA in July 2006 and included as Attachment D. Further sampling of these materials will only be conducted if uncharacterized conditions are noted. Such conditions are not likely to produce large quantities of PPE, etc. In the event that further ACM waste storage capacity is required, notification will be made to NYC Dept. of Sanitation per Part IV(R) Section 6.1.

Sections 4.6 and 6.6.1

52. Please provide a schedule for completing the hazardous waste determination of miscellaneous items and overall generator status determination (i.e., based on generation rate).

Hazardous waste determination is complete. No generator status application will be required.

Section 6.6.1

53. This section should indicate where containerized chemicals/products that are not deemed hazardous waste will be stored within the waste storage areas and the final disposal option(s) for this waste stream.

This waste stream was decontaminated and disposed via lab-pack contractor as a building preparation activity under NYS DOL Variance #05-0919.

Section 6.6.2

54. Please include a discussion of potential management of spent fuels as hazardous waste (i.e., if disposed rather than recycled).

This waste stream was decontaminated and disposed via lab-pack contractor as a building preparation activity under NYS DOL Variance #05-0919.

Section 6.6.4

55. This section states that equipment that contains refrigerant will be HEPA vacuumed and wet-wiped before being staged in a clearly demarcated on-site area until the refrigerant has been removed by a licensed refrigerant removal service. Please clarify where such equipment will be stored while it awaits a licensed refrigerant removal service to remove the refrigerant and where it will be stored awaiting final disposal off-site. In addition, it is recommended that Attachment C (Waste Storage Areas) be revised to note the areas where this equipment will be staged and/or stored.

Refrigerant-containing equipment will not be moved to a centralized area for purging. Refrigerant will be purged in place in containment by mechanical technicians that have been fit-tested to use PPE per the site HASP. The technicians will enter the building for only a short duration of time to do their work, and will enter the building as "occasional access" as described in the NYS DOL variance 05-0919. The applicable language referencing this entry is included in the variance petition for the Remediation Phase.

### Section 8.0

56. Please clarify the two arrows facing to the south on Greenwich St. & West Broadway on the travel route figure in Attachment B since Section 6.0 states that the storage areas will be at the southeast corner of the first floor of the building.

Waste will be taken from both the east and west sides of the building at different times during the work. Arrows indicate standard traffic flow of these streets.

57. If the final travel routes change from those currently proposed in Attachment B (Waste Routes) after your discussions with NYCDOT and LMCCC, please revise Attachment B as promptly as possible.

Acknowledged.

### Section 9.0

58. One of the potential facilities noted in this section is, "Lead: Recyclable." Please clarify what this means?

Deleted.

59. This section states that tanks will be disposed at Republic. Please clarify since Part IV does not indicate that tanks will be used for this project.

Deleted.

### Section 10.0

60. It is recommended that the following language be added after the first paragraph of this section: "In New York State, PCB waste (greater than 50 parts per million PCB) is also New York State hazardous waste. Therefore, the documentation specified for hazardous waste will also apply to PCB waste. In addition, for each facility that uses/stores at any one time 45 kilograms of PCBs in containers or one or more PCB transformers or 50 or more large high- or low-voltage capacitors must develop and maintain an annual document log. If PCB transformers are present at the Building, weekly inspections must be performed and inspection logs created/maintained. Certificates of disposal must be obtained for all PCB wastes disposed and large-volume PCB waste generators must also develop and maintain an annual document log."

Not applicable to this project. No PCB transformers exist at the site.