UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

REGION 2

290 BROADWAY

NEW YORK, NEW YORK 10007-1866

July 26, 2005

BY ELECTRONIC MAIL AND REGULAR MAIL

Anne Papageorge
Vice President for Memorial and Cultural Development
Lower Manhattan Development Corporation
One Liberty Plaza
New York, New York 10006

Re: Comments on Revised Draft Deconstruction Plan for 130 Liberty Street, dated June 13, 2005

Dear Ms. Papageorge:

The United States Environmental Protection Agency (EPA) has reviewed the draft Revised Deconstruction Plan, dated June 13, 2005, for 130 Liberty Street (Draft Deconstruction Plan) and other documents submitted by the Lower Manhattan Development Corporation (LMDC) for the abatement and demolition of the building at 130 Liberty Street in lower Manhattan. The following documents were reviewed:

- December 13, 2004 LMDC Draft Phase I Deconstruction Plan regarding the proposed work for Building Abatement and the references to Phase II activities (followed by January 31, 2005 regulatory comments)
- April 11, 2005 LMDC Variance Request to New York State Department of Labor (NYSDOL)
- May 12, 2005 LMDC Revised Portions of the Draft Phase I Deconstruction Plan
- June 1, 2005 LMDC Variance Reopening Request to NYSDOL
- June 10, 2005 LMDC Variance Petition, Reopening Request and Proposed Pilot Program regarding removal of aluminum column covers
- June 13, 2005 LMDC Revised Deconstruction Plan
- Netting Sampling Results for 130 Liberty, dated April 25, 2005, submitted to EPA July 14, 2005 showing the presence of lead and asbestos.

EPA consulted with the New York State Department of Environmental Conservation, NYSDOL, the New York City Department of Environmental Protection, and others about LMDC's June 13, 2005 Draft Deconstruction Plan and the variance requests submitted to NYSDOL, as well as

NYSDOL's response to each variance request or matter related to a variance request. As was previously stated, EPA's principal objective in this process is to ensure that safeguards for the prevention of releases into the environment of hazardous substances and contaminants are employed to prevent a situation that may present an imminent and substantial endangerment to public health and the environment. The regulators comments are incorporated in the attached comments.

The Draft Deconstruction Plan states that the following items will be provided to the regulators at a later date: (1) Quality Assurance Project Plan (QAPP); (2) site-specific transportation requirements; and (3) proposed abatement subcontractor's *Proposed Waste Removal and Transportation Procedures*. In addition, the December 13, 2004 Draft Phase I Deconstruction Plan included two additional sections that are no longer specified in the Draft Deconstruction Plan, Section 4 (Standard Safety Operating Procedures) and Section 7 (Soft Strip/Interior Gut Plan). LMDC has not stated the reason these sections were omitted or where the information will be placed in the revised Draft Deconstruction Plan. For example, phasing of work, work schedules, deconstruction work sequencing, truck path operations, and tower crane and hoist installation specifications that were discussed in Section 7 of the December 2004 Draft Deconstruction Plan are not discussed in the Draft Deconstruction Plan, and they are essential elements.

As EPA has stated in discussions with LMDC and its consultants, an acceptable ambient air monitoring plan is needed before the commencement of any activities at 130 Liberty Street. EPA suggests that LMDC prepare a comprehensive ambient air monitoring plan that specifically addresses impacts associated with the abatement and deconstruction activities proposed for 130 Liberty Street.

The regulators reserve the right to amend the attached comments or make additional comments about the proposed work if new information becomes available, or information currently known and considered is changed in whole or in part by documents and information submitted in the future. The attached comments do not pertain to other matters not addressed in the documents reviewed. The regulators will review and may provide additional comments after we review the supplementary information and documents not provided with the June 13, 2005 Draft Deconstruction Plan.

To supplement the revised Draft Deconstruction Plan, EPA requests that LMDC provide the regulators with a separate response to the comments that states: (1) whether the comments have been incorporated into the revised Draft Deconstruction Plan; (2) if a comment has not been incorporated, the reason it was not incorporated; and, (3) any additional information to address LMDC's response to the attached comments. This supplement will facilitate the regulators review process. Kindly let us know LMDC's schedule for submitting the revised Draft Deconstruction Plan and the other deliverables referenced in this letter.

After LMDC and its consultants have an opportunity to review the comments and this letter, please let me know if you would like to discuss them during a teleconference or at a

meeting. I can be reached at (212) 637-4447. We look forward to your response to our comments prior to your commencement of work.

Sincerely,

Pat Evangelista
WTC Coordinator
New York City Response and Recovery Operations

Attachments

cc: Sal Carlomagno, NYSDEC.
Chris Alonge, NYSDOL
Krish Radhakrishnan, NYCDEP
Richard Mendelson, OSHA
Robert Iulo, NYCDOB

SECTION 1 - WASTE SAMPLING AND MANAGEMENT PLAN[1]

Subsection 1.1. Background

1. The June 2005 version of the Waste Sampling and Management Plan states that there will be a Preparation Phase which will include: erection of scaffolding and hoists on the entire exterior of the building; erection of sidewalk sheds; and removal of existing netting. Prior information provided to the regulators indicated that exterior abatement work, and roof, façade, and general exterior areas requiring clean-up would be addressed as part of the Phase I portion of the project. The June 10, 2005 variance decision amendment from the New York State Department of Labor (DOL) dealing with asbestos for the majority of the aforementioned work and the June 23, 2005 variance decision amendment for the rooftop cooling tower transite and caulking materials were based in part on representations from LMDC that these activities would be conducted as part of Phase I, with the exception of the rooftop cooling tower transite and caulking materials removal that LMDC indicated would be part of Phase II of the deconstruction. DOL reviewed and approved these requests understanding that the activities specified in the variances were part of Phase I, with the potential that the rooftop cooling tower transite and caulking materials may be removed in either Phase I or Phase II. Additionally, LMDC stated in the third paragraph of this subsection that Phase I of the Deconstruction Project includes the cleaning of exterior surfaces, as necessary, to facilitate the erection of the man-hoist and the crane.

Revision of this subsection, and any other subsection of the Draft Deconstruction Plan where reference is made to the "Preparation Phase", is needed to state that this work will be conducted as part of Phase I activities. The conditions specified in the June 10, 2005 and June 23, 2005 DOL variance decision amendments would apply regardless of the manner in which LMDC interprets the phases for this project. For example, this variance decision requires proposed air monitoring for contaminants other than asbestos must be submitted to the regulatory agencies for review and acceptance prior to commencement of any work, including, but not limited to, scaffolding installation, exterior regulated abatement work areas, façade cleaning, netting removal, hoist/scaffold tie-ins and tent enclosure work.

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[1] Please note that these comments relate to the June 13, 2005 revised draft deconstruction plan. The U.S. Environmental Protection Agency has not received the following: (1) a Quality Assurance Project Plan (QAPP); (2) site-specific transportation requirements; and (3) the proposed abatement subcontractor's *Proposed Waste Removal and Transportation Procedures*. In addition, the December 13, 2004 Draft Phase I Deconstruction Plan included two additional sections that are no longer specified in the June 2005 draft Deconstruction Plan, Section 4 (Standard Safety Operating Procedures) and Section 7 (Soft Strip/Interior Gut Plan). LMDC has not indicated why these sections were removed or indicated where the information that was to be located in these sections can now be found in the current draft version of the Deconstruction Plan. Further, the air sampling protocols are not yet complete for the Lower Manhattan Construction Command Center (LMCCC) Special Purpose Air Quality Monitoring Program (AQMP), which will include $PM_{2.5}$ neighborhood monitoring during major lower Manhattan construction activities, including the deconstruction of the 130 Liberty Street building. EPA understands that LMCCC will prepare detailed AQMP protocols only after background monitoring data is completed. EPA reserves its right to comment on the aforementioned items when it is provided to the regulators. EPA also reserves its right to make additional comments about the revised draft deconstruction plan.

2. The above-referenced asbestos variances from DOL indicate that the following activities will be conducted during Phase I: netting removal; exterior façade clean-up; exterior fireproofing removals; scaffold tie-ins; hoist and crane tie-in installation; roof cleaning; and cleanup of any exterior areas requiring clean-up. Therefore, item "(f)" specified in the third paragraph should be stricken from the plan and re-written to include all of the referenced items for Phase I of the Deconstruction Project. The erection of the scaffolding cannot occur without the asbestos variance for the scaffolding tie-ins to the building.

3. The fourth paragraph states that the Phase II portion of the project will consist of exterior abatement/structural demolition. In addition, the fifth paragraph states that Phase II of the Deconstruction Project will include the cleaning of the building exterior. As noted in the comments, the exterior abatement work, and roof, façade, and general exterior areas requiring clean-up will be conducted as part of the Phase I portion of the project, the rooftop cooling tower transite and caulking materials may, if acceptable, be removed in either Phase I or Phase II. The Draft Deconstruction Plan needs to specify in these portions of the subsection, and any other subsection of the Draft Deconstruction Plan where reference is made to Phase II, that the aforementioned work will be conducted as part of Phase I.

4. Since water will need to be used during the wash-down of the exterior of the building, the Waste Sampling and Management Plan needs to describe how that water will be contained, characterized, stored, and disposed of depending on the sampling results. The Waste Sampling and Management Plan needs to be revised to incorporate specific details on the sampling scheme for the water to be used during the building wash-down or its use during any other aspects of this deconstruction project (e.g., any other exterior work, as an engineering control during abatement activities, etc.).

Subsection 1.2. Roles and Responsibilities

5. Since the abatement subcontractor will be conducting the asbestos abatement work during Phase I, the first sentence of the sixth paragraph should state "Phase I portion of the" prior to "Deconstruction Project".

6. Since the abatement subcontractor will also be conducting asbestos abatement work on the exterior of the 130 Liberty Street building, the words "within" and "throughout" should be replaced with "pertaining to the" in the first and second sentences of the sixth paragraph, respectively.

7. The last sentence of the sixth paragraph states that the abatement subcontractor "may also" have responsibility for handling certain potentially hazardous and/or regulated miscellaneous building components. The Draft Deconstruction Plan needs to specify any other subcontractor who will be handling and transporting "non-asbestos" waste to the on-site waste storage area. If the asbestos abatement contractor will be handling all of the potential waste streams (e.g., asbestos, RCRA, TSCA, universal waste, etc.) that

information is needed. If another subcontractor will have this responsibility, revise the Waste Sampling and Management Plan accordingly. LMDC will need to ensure that the abatement subcontractor has the expertise in handling non-asbestos waste streams in the event it will deal with all the potentially different hazardous and asbestos waste streams during the "Preparation Phase", Phase I and Phase II.

8. The Draft Deconstruction Plan currently discusses Phase II as well as Phase I. Consequently, this subsection needs to include information on the entities to be involved, and their title/responsibilities, for the waste streams to be generated during the Phase II activities (e.g., steel, concrete, masonry, etc.).

Subsection 2. Building Components:

9. LMDC needs to add the following italicized and underlined word to the fourth bullet item on page 4, "Miscellaneous Other Building Related Regulated *Components* including".

10. Page 4 discusses the "Miscellaneous Other Building Related Regulated Components". The December 2004 version of the Waste Sampling and Management Plan included the following components that are not currently specified in the June 2005 version of the plan:

- Used oil/lubricant oils

- Miscellaneous stored containers of product and/or waste (e.g., antifreeze, cleaning solutions, paint, corrosion inhibitor, neutralizing acid, coolant water treatment, oxidizer, joint compound, absorbent material)

- Oxygen and propane tanks/bottles

These items need to be re-incorporated into the Building Components portion of the Waste Sampling and Management Plan unless LMDC can provide information on when and how these materials were disposed of and who authorized and supervised disposal of these materials. LMDC stated that these items were in the building based on a preliminary floor by floor inventory that was specified as Attachment 2 (Current Inventory of Miscellaneous Building Components) in the December 2004 version of the Waste Sampling and Management Plan.

11. LMDC needs to revise the fourth bullet item on page 4 to read, "Mercury-containing electrical switches", and add "Mercury thermostats" to the list.

12. The December 2004 and May 2005 versions of Subsection 2 (Building Components) of the Waste Sampling and Management Plan had discussed the components of the building as they pertained to the Phase I portions of the Deconstruction Project and mentioned "small-scale" mechanical electrical plumbing (MEP) components, "minor" exterior building components and "a small amount of" column covers. However, the

June 2005 version of the Waste Sampling and Management Plan has removed any reference to Phase I, removed the aforementioned words in quotation, and has included whole HVAC systems, elevators, spandrel units, louvers, concrete, masonry, and structural steel to the list of anticipated waste streams.

In the Draft Deconstruction Plan, it is now unclear which anticipated waste streams will be handled during which phase of the Deconstruction Project. LMDC needs to revise this subsection to clearly identify which anticipated waste streams will be handled under the containment measures specified for the Phase I portion of the Deconstruction Project and which waste streams will be handled during Phase II. LMDC needs to provide further details to the regulators for those additional waste streams that LMDC now envisions will be handled during Phase I.

13. Add "and fascia" after "column coverings" under the third bullet item to be consistent with Subsection 4.3.2 (Components) of the Waste Sampling and Management Plan.

14. The earlier versions of the Draft Deconstruction Plan had used the wording, "HVAC ducts", with regard to buildings components that were to be handled during the Phase I portion of the deconstruction project. The June 2005 version of the Waste Sampling and Management Plan now uses the wording, "HVAC systems". Please clarify what difference, if any, would be needed for handling of the HVAC "systems" and the phase in which the "HVAC systems" will be handled and removed.

15. The last paragraph of this subsection states that the following sections (i.e., of the Waste Sampling and Management Plan) will outline the proposed steps for further characterization, removal and recycling or disposal of the anticipated waste streams. However, the other sections of the Waste Sampling and Management Plan do not provide any of this information for the following items noted in the list of anticipated waste streams: concrete, masonry, and elevators. LMDC needs to revise the Waste Sampling and Management Plan to provide the missing information.

16. The December 2004 version of the Waste Sampling and Management Plan included an attachment titled, "Current Inventory of Miscellaneous Building Components", that was referenced on page 4 (Building Components Subsection) of the December 2004 version of the document. This attachment is not included in the June 2005 version of the Waste Sampling and Management Plan. LMDC has not provided any explanation for why it would be appropriate to remove this list from the current version of the Waste Sampling and Management Plan. This list needs to be incorporated in the current version of the Waste Sampling and Management Plan since it will provide individuals overseeing the project with a preliminary overview of the type and amount of miscellaneous building components they may need to be characterized, handled, and disposed of, per floor.

Subsection 3. General Waste Characterization Strategy

17. Revise the last sentence of the second bullet item on page 6 to read, "(e.g., light ballasts which may contain PCBs, items coated with lead-based paint, lead-sheathed electrical components, etc.)."

18. Please clarify in the second bullet item on page 6, and in any other portions of the Waste Sampling and Management Plan, what is meant by sample for "hazardous waste characteristics" and sample for "RCRA characteristics". Revise the document to clarify these matters. For instance, a material may be a hazardous waste due to corrosivity, ignitability, reactivity, in addition to toxicity, or a material may be contaminated with wastes listed in the RCRA F, K, P, or U lists.

19. The second and third bullet items on page 6 state that non-hazardous materials and porous deconstruction waste impacted by dust would not be deemed hazardous if the dust classification sampling states that the dust is not a characteristic hazardous waste. Such a statement may only be accurate if the proposed sampling approach would be representative of all areas that have been impacted by the WTC dust, including non-hazardous materials and porous materials. The level of contaminants to be found in the dust and materials impacted by the dust may not be homogeneous throughout the building. It only states on the top of page 7 that a "random sampling strategy will be used." This statement is unclear. A detailed sampling scheme is needed and should be provided to the regulators for review and comment.

20. Replace "until" with "unless" in the last sentence of the third paragraph on page 7.

21. The third paragraph on page 7 states that on-site storage of deconstruction waste for waste classification will not be required and that removed materials will be placed into applicable disposal containers/vehicles for off-site shipment. This paragraph appears to contradict Subsection 5 (Storage) which states that waste streams will be separated and stored on-site prior to off-site disposal. The Draft Deconstruction Plan needs to clarify whether on-site storage will or will not be occurring, what will be stored in the storage area, the timing and location of sampling of waste streams prior to final off-site disposal, etc. The plan needs to be revised to make these matters clear.

22. The first sentence of the last paragraph of this subsection on page 8 needs to be revised to read, "If greater than 100 kg/month of hazardous waste is generated during the deconstruction process..."

Subsection 4.1.2. Components

23. This subsection states that all "materials impacted by WTC dust" will be handled as asbestos at the site. The Draft Deconstruction Plan needs to clarify what materials would be included because the subsection appears to contradict other portions of the Waste Sampling and Management Plan. For example, subsection 4.3.1. (Non-Porous

Deconstruction Waste – Characterization/Identification) states that non-porous building materials sufficiently cleaned will not be classified as asbestos waste.

Subsection 4.1.2.1. Settled Dust

24. The following underlined italicized words need to be added to the end of the second sentence of the 1st paragraph, "…to determine the proper waste disposal options *for the settled dust*."

Subsection 4.1.2.2. Pre-September 11, 2001 Asbestos-Containing Building Materials

25. EPA's January 31, 2005 response letter included a comment with regard to fire doors incorrectly cited in Section 4.1.2.2 (Asbestos-Containing Building Materials) of the December 2004 version of the Waste Sampling and Management Plan, as assumed to be non-asbestos containing materials until further information was provided. If fire doors are potentially ACBM, they would need to be handled as such until proven otherwise.

Subsection 4.1.2.2 of the June 2005 version of the Waste Sampling and Management Plan now states that fire doors are in the category of building materials that were sampled and tested negative for asbestos or were not asbestos containing materials by regulation. LMDC has not provided any information on the basis for that conclusion. If the conclusion has been drawn based on supplemental ACBM inspection studies, LMDC needs to indicate where this supplemental information is stated in order for the regulatory agencies to review and determine if the sampling results show that fire doors no longer need to be assumed to be potentially ACBM. If such information is not available, EPA's comment would still apply and the Waste Sampling and Management Plan would need to be revised accordingly.

Subsection 4.1.3. Analytical Methods and Sample Collection Frequency:

26. Portions of the second bullet item under Subsection 4.1.3 pertaining to the sampling for corrosivity need to be re-worded to be consistent with the current version of SW-846. LMDC needs to add the following italicized and underlined wording to the first sentence, "The characteristic of corrosivity…may be analyzed using Method 9045 *D or 9040C*…" In addition, the following should be stricken from the second sentence and the following italicized and underlined wording added, "SW-846 method 9040 ~~(whether B or~~ C) is for aqueous wastes and…at least 20% of the total volume of the waste; 9045 *D* is for soils…"

27. LMDC did not revise the Waste Sampling and Management Plan based on NYSDEC's January 6, 2005 comment letter (comment #3, first bullet item, on page 4) or provide the regulatory agencies any justification for not addressing the NYSDEC's concerns that a DOT oxidizer is also a D001 hazardous waste. The Draft Deconstruction Plan needs to be revised accordingly or a justification provided for the regulators' review.

Subsection 4.1.3.1. Waste Characteristics Sampling Frequency for Settled Dust

28. LMDC needs to provide a detailed rationale for the way in which it determined that the proposed three composite samples per zone (1A, 1B, 2, 3, & 4), which would comprise a total of only sixty grab sample locations for an approximately 1.4 million square feet building, would be representative for the purpose of waste characterization for the settled dust. LMDC states throughout the document that the concentration of the contaminants of potential concern (COPCs) found within the settled dust samples varied throughout the building. This is of particular concern since the Waste Sampling and Management Plan states that any non-hazardous materials potentially impacted by dust, by extension, would not be deemed hazardous if the dust classification sampling states that the dust is not a characteristic hazardous waste. That statement may only be accurate if LMDC is proposing a sampling scheme that will be representative of all areas in the building that have been impacted by WTC dust because the level of contaminants to be found in the dust, and by extension, materials impacted by the dust may not be homogeneous throughout the building.

29. Specific details are needed about the locations of the various samples, and the rationale for their locations. Simply stating that the samples will be taken "within each zone" and will be "representative of the settled dust" is a broad generalization that does not provide any indication on the number of samples that will be gathered from each building component per floor per zone, and the locations at which the samples will be collected.

30. LMDC needs to provide details on the sequencing and timing of the submission of the sampling locations for the dust sampling; the timing of the submission of the sampling results; and the way in which the timing impacts the overall deconstruction activities. It needs to be reviewed by the regulators prior to this activity being conducted and prior to proceeding to the next phase of activities in that work area (e.g., conducting waste characterization sampling of building components).

Subsection 4.1.3.2. Waste Characteristics Sampling Frequency for Asbestos-Containing Building Materials

31. Provide a detailed rationale for the basis for the determination that the proposed three composite samples per zone (1, 2, 3, & 4), which would comprise a total of only forty-eight grab sample locations for porous asbestos material throughout an approximately 1.4 million square feet building would be representative for waste characterization for the asbestos-containing building materials. At this time there is no basis to conclude that it is acceptable that waste classification samples for RCRA characteristics of porous ACBM would only be collected if the analytical sampling results for the dust samples indicate that the dust exceeds the regulatory limits for RCRA characteristic waste or there is another reason to suspect the ACBM is hazardous.

Explain the reasons for another round of waste classification sampling for any porous building components since it would be appropriate to assume that a porous building

component would contain the same concentration of hazardous waste as the representative dust sample taken for that building component. LMDC is currently assuming that porous building components are assumed to be asbestos, at a minimum. If the representative dust sample for a particular porous building component were to also be deemed hazardous, then by extension, it would be appropriate to assume that the porous building component itself is a hazardous waste.

32. It is unclear how LMDC will make the determination on where waste characterization samples will be taken per each porous asbestos material component based on the sampling results of the dust to be gathered per zone. LMDC needs to provide additional information to clarify this issue.

33. Upon receipt of the dust sampling waste characterization results, LMDC needs to develop specific details on the locations selected for the various waste characterization samples, and the rationale for their locations. The statement that the samples will be taken "within each zone" and will be "representative of each type of ACBM" is a broad generalization that does not provide specific information on the number of samples that will be gathered from each ACBM component per floor per zone, and the locations at which the samples will be collected.

34. Details on the sequencing and timing of the submission of the sampling locations for the dust sampling and the porous ACBM components sampling, and the manner in which timing impacts the overall deconstruction activities needs to be provided. All these sampling locations will need to be reviewed and commented on by the regulators prior to this activity being conducted.

35. This subsection discusses the approach to be taken with porous ACBM, but does not provide any information on the sampling strategy and final disposal options for non-porous ACBM. This subsection should be revised to explain in detail non-porous ACBM sampling and disposal.

Subsection 4.1.4.1. Disposal - Settled Dust and Materials Impacted by WTC Dust

36. This subsection states that "materials presumed to have been impacted by WTC dust" will be managed as asbestos waste, at a minimum. The reference to such materials appears contrary to other portions of the Waste Sampling and Management Plan. For instance, subsection 4.3.1. (Non-Porous Deconstruction Waste – Characterization/Identification) states that non-porous building materials sufficiently cleaned will not be classified as asbestos waste.

37. It is unclear what locations and/or areas and/or building components will be deemed hazardous waste, and thus disposed as hazardous waste, based on the waste classification sample results referenced in Subsection 4.1.3.1. It is unclear if the settled dust, and all of the materials impacted by such dust, in an entire zone would be deemed hazardous based on LMDC's proposed approach of taking three composite samples within that zone. LMDC needs to provide further detail on how final disposal options will be made for the

various building components per floor, per zone based on the proposed sampling scheme specified in Subsection 4.1.3.1.

Subsection 4.1.4.2. Disposal - Asbestos Containing Building Material

38. Explain how locations and/or areas and/or waste streams will be deemed hazardous waste, and thus disposed as hazardous waste, based on the waste classification sample results referenced in Subsections 4.1.3.1 and 4.1.3.2. LMDC needs to provide further detail on how final disposal options will be made for varied ACBM (both porous and non-porous) per floor per zone based on the proposed sampling scheme specified in Subsections 4.1.3.1 and 4.1.3.2.

39. The last paragraph discusses only asbestos landfills for final disposal options. Since the ACBM may potentially be deemed a hazardous waste, depending on the conclusion of the waste classification sampling, this paragraph needs to be revised to discuss the final disposal options for waste streams that may be both an asbestos and hazardous waste.

Subsection 4.1.4.1. Settled Dust and Materials Impacted by WTC Dust; Subsection 4.1.4.2. Asbestos Containing Building Material; Subsection 4.2.4. Disposal; and Subsection 4.3.4. Disposal

40. LMDC incorrectly referenced Section 7 (Travel Routes) for the disposal facilities in these subsections. Revise these subsections to read as follows, "Potential disposal facilities are identified in Section 8 and Attachment 3 of this plan."

Subsection 4.2.1. Porous Deconstruction Waste – Identification

41. As stated previously in this comment letter, it is recommended that LMDC revise this subsection, and any other subsection of the Draft Deconstruction Plan where reference is made to the "Preparation Phase", to indicate that the exterior netting removal will be conducted as part of Phase I activities. The conditions specified in the June 10, 2005 DOL variance decision amendment would apply regardless of the manner in which LMDC interprets the phases for this project. For example, this variance decision requires all proposed air monitoring criteria for contaminants other than asbestos must be submitted to the regulatory agencies for review and acceptance prior to commencement of any work, including, but not limited to, the removal of the netting referenced in this subsection.

Subsection 4.2.2. Porous Deconstruction Waste – Components

42. LMDC needs to clarify the meaning of the following sentence in the last paragraph of this subsection, "If sample results indicate RCRA characteristics in excess of regulatory requirements for disposal as asbestos waste, then further characterization for segregation of the porous materials will be performed." The previous sentence referenced an additional round of sampling if the dust samples indicated the presence of

RCRA characteristic waste. Explain the purpose of a third round of sampling prior to final disposal and what will be sampled?

Subsection 4.2.3. Porous Deconstruction Waste Sampling Frequency

43. The first paragraph states that porous deconstruction waste will only be collected for RCRA characteristics if the dust classification sampling states that the dust samples exceed the regulatory limits for RCRA characteristic waste. As noted above, the statement may only be accurate if LMDC is proposing a sampling scheme that would be representative of all areas that have been impacted by WTC dust, including porous deconstruction waste, since the level of contaminants to be found in the dust, and by extension, materials impacted by the dust may not be homogeneous throughout the building.

An explanation is needed for proposing another round of waste classification sampling for any porous deconstruction waste streams since one may assume that a particular porous deconstruction waste stream would contain the same concentration of hazardous waste as the representative dust sample taken for that particular porous deconstruction waste stream. LMDC is currently assuming that all porous materials are asbestos, at a minimum. If the representative dust sample for a particular porous building component were to also be deemed hazardous, then by extension, it would be appropriate to assume that the porous building component itself is a hazardous waste.

44. It is unclear how LMDC will make the determination on where waste characterization samples will be taken per each porous deconstruction waste component based on the sampling results of the dust to be gathered per zone. LMDC will need to provide additional information to clarify this issue.

45. Upon receipt of the dust sampling waste characterization results, LMDC needs to develop specific details on the locations selected for the various waste characterization samples for the porous deconstruction waste components, and the rationale for their locations. The statement that the samples will be taken "within each zone" and will be "representative of each type of porous deconstruction generated waste" is a broad generalization that does not provide specific information on the number of samples that will be gathered from each porous deconstruction waste component per floor per zone, and the locations at which the samples will be collected.

46. LMDC should provide details on the sequencing and timing of the submission of the sampling locations for the dust sampling, and the sampling of porous deconstruction waste components, and how that timing impacts the overall deconstruction activities since these sampling locations will need to be reviewed by the regulators prior to these activities being conducted.

Subsection 4.2.3.1. Waste Sampling Frequency for Suspended Ceiling Tiles, Gypsum Wallboard, Carpeting and Fiberglass Insulation

47. Please clarify if LMDC is proposing to collect 48 grab samples (i.e., three composite samples per zone (4 zones total) with four grabs per composite) per material (suspended ceiling tiles, carpeting, gypsum wallboard, and fiberglass insulation) for a total of 192 grab samples. Explain the basis for the approach to be taken.

48. LMDC needs to provide detailed rationale for how it determined that the proposed sampling scheme will be representative for the purpose of waste characterization for the porous deconstruction waste streams to be found throughout the approximately 1.4 million square feet building.

49. Since the title of this subsection states that the sampling frequency for gypsum wallboard is discussed within it, gypsum wallboard should be added to the list of porous materials noted in parentheses in the first sentence of the first paragraph.

Subsection 4.2.3.2. Waste Sampling Frequency for Sprayed-on Fireproofing

50. LMDC needs to provide detailed rationale for how it determined that the proposed three composite samples (4 grab samples per composite sample) per zone (1, 2, 3, & 4), which would comprise a total of only forty-eight (48) grab sample locations for sprayed-on fireproofing encompassing an approximately 1.4 million square feet building. Explain how 48 grab sample locations would be representative for the purpose of waste characterization for the sprayed-on fireproofing since LMDC stated throughout the Draft Deconstruction Plan that the concentration of the COPCs found within the settled dust samples varied throughout the building.

Subsection 4.2.3.3. Waste Sampling Frequency for Exterior Mesh/Netting

51. LMDC needs to clarify if it is proposing to collect only one composite sample that will consist of a minimum of four (4) grab samples from all three sides of the building that has the netting, or if LMDC is proposing to collect one composite sample per side, thus, collecting a total of three composite samples, comprising a minimum of four grab samples per composite, for a total of twelve grab samples.

52. Assuming LMDC is proposing to collect three composite samples from the exterior mesh/netting, which would comprise a total of twelve (12) grab sample locations for an exterior mesh/netting that encompasses three sides of a 40-story 1.4 million square feet building, LMDC needs to provide detailed rationale for the number of samples and why the samples are representative for the purpose of waste characterization.

53. LMDC proposes to collect the samples only at ground-level. LMDC needs to propose a sampling scheme that will be representative of all areas of the exterior mesh/netting since the level of contaminants to be found in the dust, and by extension, materials impacted by the dust may vary at height and by location.

54. In addition, LMDC will need to provide specific details on the locations of the various waste characterization samples for the exterior mesh/netting, and the rationale for their locations, prior to commencement of sampling and removal activities pertaining to the exterior mesh/netting.

55. Since water is to be used as an engineering control during the removal of the exterior mesh/netting, this subsection needs to describe how that water will be contained, characterized, stored, and disposed of depending on the sampling results. The Waste Sampling and Management Plan needs to be revised to incorporate specific details on the sampling scheme for this water.

Subsection 4.2.4. Porous Deconstruction Waste – Disposal

56. The first sentence of the first paragraph should read, "As described above…will be disposed of as asbestos waste, at a minimum, unless RCRA…the material must be managed as RCRA waste as well as asbestos waste."

57. It is unclear what locations and/or areas and/or waste streams will be deemed hazardous waste, and disposed of as hazardous waste, based on the waste classification sample results from the dust and the porous deconstruction waste sample results. LMDC needs to provide further detail on how final disposal options will be made based on the various porous deconstruction waste streams waste classification sample results per floor per zone and dust waste classification sample results per floor per zone.

58. The last paragraph discusses only asbestos landfills for final disposal options. Since the porous deconstruction waste may also be deemed hazardous waste, depending on the conclusion of the waste classification sampling, this paragraph needs to be revised to discuss the final disposal options for waste streams that may include both an asbestos and hazardous waste.

59. The first sentence of the second paragraph mentions decontaminated non-porous materials. However, the subject of this subsection is disposal of porous deconstruction waste. Any reference to non-porous materials should be removed. The beginning of this sentence needs to read, "The porous deconstruction waste stream(s) will be managed…"

60. It is unclear how LMDC will determine which portions of the exterior mesh/netting will need to be disposed of as asbestos and/or hazardous waste and how those portions will be segregated from the non-asbestos and/or non-hazardous portions of the netting during the removal of the netting from the exterior of the building.

Subsection 4.3.1. Non-Porous Deconstruction Waste – Characterization/Identification

61. The fourth sentence of the first paragraph is confusing. It needs to be rewritten to state, "…only those components that are painted and planned to be disposed will be

sampled prior to disposal while those components painted and recycled will not be sampled; those components to be sampled will be…"

62. The first paragraph states that painted surfaces to be sampled will be analyzed for the RCRA characteristic of TCLP lead, cadmium, and chromium. Since painted surfaces may contain other metal components such as arsenic and mercury, and LMDC would be running a TCLP analysis, LMDC needs to include all of the metals in its TCLP analysis to determine if the painted surfaces would cause the material to be classified as a hazardous waste. Revise this subsection, and any other subsections of the deconstruction plan that mention the sampling of painted surfaces, accordingly.

63. The third paragraph states that if non-porous deconstruction waste will not be first wet-wiped/HEPA vacuumed, then that non-porous deconstruction waste component would be classified as asbestos waste, at a minimum, and would also be classified and managed based on the settled dust RCRA characterization results. As stated above, it is unclear if LMDC is proposing a sampling approach for the settled dust that would be representative of all areas that have been impacted by the WTC dust, including non-porous deconstruction waste components, since the level of contaminants to be found in the dust, and by extension, materials impacted by the dust may not be homogeneous throughout the building. LMDC will need to demonstrate that it will be gathering an appropriate number of samples of dust samples from all of the various non-porous deconstruction waste streams throughout the building for waste classification in order to ensure that the settled dust and those non-porous deconstruction waste components not scheduled to be wet-wiped/HEPA vacuumed are disposed of properly.

Subsection 4.3.3. Analytical Methods and Sample Collection Frequency

64. It is unclear what LMDC is proposing for painted non-porous components. LMDC needs to revise this section to clarify. The Waste Sampling Management Plan seems to imply that only one composite sample per non-porous building component will be gathered and that one sample would determine the assumed final waste disposal option for all of the other similar non-porous building components that will be found throughout either that zone or the entire building. LMDC will need to provide its rationale for its sampling scheme in the next version of the Draft Deconstruction Plan.

Subsection 4.4.1. Miscellaneous Building Components - Definition/Characterization

65. Please revise to include a requirement for developing and maintaining documentation demonstrating the use of generator knowledge to determine that materials are not hazardous waste, and state whether such determinations are based on waste analysis or inherent waste composition.

66. The second to last paragraph needs to be revised to explain how LMDC plans to deal with miscellaneous building components that are not wet-wiped/HEPA vacuumed. LMDC has indicated throughout the Waste Sampling and Management Plan that all building components are assumed to be asbestos waste, at a minimum, and may also be

characterized as hazardous waste depending on the representative dust sample(s) taken for that particular building component.

Subsection 4.4.2. Components

67. An additional subsection needs to be developed under Subsection 4.4.2 (Components) to explain how mercury-containing electrical switches will be handled to distinguish this subsection from Subsection 4.4.2.4, which relates to the way in which mercury thermostats will be handled as a universal waste. Simply adding an additional sentence to the mercury thermostat subsection stating that the hazardous waste determination for non-thermostat mercury switches will be made prior to disposal is not satisfactory. A subsection noting the following items should be included for the mercury-containing electrical switches, as stated, for the other components described under Subsection 4.4.2: background/definition, characterization/analytical method, components, and disposal.

68. Oxygen and propane tanks/bottles were specified as a subsection in the December 2004 version of the Waste Sampling and Management Plan. This subsection needs to be re-incorporated under Subsection 4.4.2 (Components) of the latest draft version of the Waste Sampling and Management Plan unless LMDC can provide information on how and when these items were disposed from the building, and which regulatory agency provided comment and/or acceptance prior to disposing of these items. LMDC noted that these items were in the building based on a preliminary floor by floor inventory that was specified as Attachment 2 (Current Inventory of Miscellaneous Building Components) of the December 2004 version of the Waste Sampling and Management Plan. The original subsection included, and should continue to include, the following items: background/definition, characterization/analytical method, components, and disposal.

69. NYSDEC's January 6, 2005 comment #8 on page 5 still applies with regard to the oxygen and propane tanks/bottles: (1) both oxygen and propane intended for disposal would be hazardous waste (D001); and (2) a pressure gauge is not the correct device to determine the amount of propane remaining in a cylinder because propane liquefies under pressure. LMDC needs to clarify how it plans to address the concern raised by NYSDEC about the way in which it will determine if the tanks/bottles are empty.

70. Subsection 2 (Building Components) mentions "uninterruptible power supply (UPS)" as a miscellaneous building component. However, UPS is not discussed within this subsection. LMDC should explain what is defined as UPS. Further, an additional subsection needs to be included under Subsection 4.4.2 (Components) to explain how UPS will be handled and it should identify the following items as was done for the other miscellaneous building components: background/definition, characterization/analytical method, components, and disposal.

Subsection 4.4.2.1. PCB Light Ballasts and other PCB Wastes

71. Historically, PCBs were used as plasticizers in commercial applications, paints and caulking. Caulking materials manufactured prior to 1978, especially material used to seal windows in masonry building construction, may frequently be found to contain high levels of PCBs at levels, well in excess of 50 parts per million (ppm). When caulking material is being collected from areas such as, windows, HVACs, paneling, etc., EPA recommends that the caulking material be sampled and analyzed for PCBs prior to disposal. Caulking material that contains PCBs above the regulated level of 50 ppm would be regulated for disposal as *PCB bulk product waste* (such caulking material at contamination levels exceeding 50 ppm may also constitute New York State hazardous waste pursuant to 6 NYCRR, Part 371, Section 371.4(e).). Consequently, EPA recommends that the subsections pertaining to the definition, characterization/analytical method, components, and disposal of PCBs and caulking be revised to incorporate the approach to be taken for caulking believed to and/or determined to contain PCBs in excess of 50 ppm.

Subsection 4.4.2.1.3. PCB Light Ballasts and other PCB Wastes – Components

72. This subsection states that at the time that this plan was being developed it was not possible to determine the number of samples to be collected since the detailed waste survey had not yet been performed. Once this survey is completed, LMDC should provide the regulators specific details on its proposed sampling scheme for potentially PCB-containing materials and should provide details on the sequencing and timing of the submission of the sampling scheme, the timing of the submission of the sampling results, and how the timing impacts the overall deconstruction activities. That information needs to be reviewed by the regulators prior to off-site disposal of PCB-containing materials.

Subsection 4.4.2.2.1. Universal Waste – Definition

73. The third numbered sentence in the second paragraph on page 24 should be revised to read as follows, “Mercury Thermostats as described...”

74. The last sentence on page 24 of this subsection should be revised to read, “It is assumed that pesticides ...the requirements for mercury thermostats, lamps, and batteries....”

Table of Contents and Subsection 4.4.2.4. Universal Waste – Thermostat Mercury Switches

75. The title for subsection 4.4.2.4, and its reference in the table of contents, needs to be revised to read, “Universal Waste – Mercury Thermostats,” because that is applicable to the Universal Waste regulations.

Subsection 4.4.2.4.2. Thermostat Mercury Switches - Components

76. The first sentence of this subsection needs to be revised to read as follows: "Mercury is commonly used in thermostats." The second sentence should be stricken from this subsection since it relates to mercury-containing electrical switches not mercury thermostats. Further, it should be stated for clarity that mercury-containing thermostats may be managed as universal wastes while mercury-containing electrical switches, when disposed, must be managed as hazardous waste.

Subsection 4.4.2.7. Refrigerant-Containing Equipment

77. The third sentence in the first paragraph of this subsection should be re-written as follows to provide further clarity: "Refrigerant-containing equipment would be considered an appliance and is excluded from definition of C&D debris."

78. This subsection does not specify how the refrigerant-containing equipment will be disposed off-site. The second bullet item only states how the removed refrigerant will be disposed. This portion of the subsection needs to be revised.

Subsection 4.4.2.8. Bagged Accumulated Waste

79. LMDC states that miscellaneous bagged accumulated waste will be disposed of as asbestos-containing wastes. It may be appropriate to claim that miscellaneous bagged accumulated waste will be disposed of as asbestos waste. This waste stream may also contain WTC dust, and other miscellaneous building components, and it should be sampled and further characterized for waste classification related to other identified contaminants, including the COPCs. A determination needs to be made about whether bagged accumulated waste must be handled as a hazardous waste in addition to being handled as an asbestos waste, as LMDC states it will do for all dust in the Waste Sampling and Management Plan. Revise Subsection 4.4.2.8 accordingly.

Subsection 4.4.2.10. Fire Extinguishers

80. LMDC has not revised this subsection to address NYSDEC's January 6, 2005 comment #4 on page 2 with regard to fire extinguishers. NYSDEC stated that LMDC should contact the manufacturer for both discharged and non-discharged fire extinguishers for the proper discharge and disposal method. Further, NYSDEC stated that fire extinguishers would not be considered C&D debris. The plan still states that discharged, spent fire extinguishers will be treated as normal C&D debris. LMDC needs to revise this subsection accordingly.

Subsection 4.4.2.11.3 Halon Fire Suppression Systems – Components

81. LMDC should state clearly how halon will be recovered if it is dispersed throughout the piping system and revise this subsection.

Subsection 5. Storage

82. LMDC states that incompatible wastes will not be stored next to each other. Describe how this task will be accomplished. LMDC has not provided any design specifications for the "enclosed, locked area" for the storage of waste material nor the location of this storage area on-site. LMDC needs to provide this information to the regulatory agencies for their review and acceptance prior to beginning the project.

83. What does LMDC mean by the following sentence, "Containers or incompatible wastes will be segregated"? LMDC should clarify and explain this sentence.

84. The word "included" should be replaced with "will include" in the sixth sentence of this subsection.

85. The eighth sentence of this subsection needs to be revised to read as follows, "The condition of each...within the storage area, posted signs, labeled accumulation start dates, labeled description of the waste, aisle space, proper segregation of incompatible and/or ignitable waste, etc., will be inspected."

Subsection 5.1. Hazardous Waste

86. LMDC needs to add the following italicized and underlined wording to the first sentence of the first paragraph, "Hazardous waste will be placed in containers *made of or lined with materials which will not react with, and are otherwise compatible with, the hazardous waste to be stored so that the ability of the container to contain the waste is not impaired* (e.g., USDOT…"

87. The last sentence of the first paragraph needs to be revised to read, "Containers will be inspected at least weekly to identify any leaks, and/or deterioration caused by erosion or other factors, and to ensure containers are not over-packed."

88. LMDC needs to add the following sentence to the end of the first paragraph, "While being accumulated on-site, each container shall be labeled or marked clearly with the words, "Hazardous Waste".

89. The second paragraph needs to be rewritten as follows, "Hazardous waste may be accumulated in the waste storage area without a storage permit for a maximum of 90 days from the accumulation start date. If the generator status should change from large quantity generator to small quantity generator, then a maximum of 13,200 pounds of hazardous waste may be accumulated in the waste storage area without a storage permit for a maximum of 180 days from the accumulation start date."

90. LMDC should add language on its requirements for handling incompatible waste, such as, but not limited to, indicating that hazardous waste will not be placed in an unwashed container that previously held an incompatible waste, indicating how a storage

container holding a hazardous waste that is incompatible with any waste or other materials stored nearby will be separated from the other materials or protected from them by means of a dike, berm, wall, or other device. Revise the plan accordingly.

91. Since LMDC has not provided any specifications for the waste storage area, it is unclear how and where ignitable or reactive waste will be stored within the storage area. Such waste must be located at least 15 meters (50 feet) from a facility's property line. Specifications on the waste storage area and the location of ignitable and/or reactive waste within the waste storage area will need to be identified and provided to the regulators for review.

Subsection 5.4. PCBs

92. The second sentence should be revised to read as follows, "Any leaking PCB articles, containers or over-pack containers will be transferred to properly marked, non-leaking containers or over-pack containers."

Subsection 6. Transportation Requirements

93. LMDC states in this subsection that site-specific transportation requirements are in the process of being developed and that once they have been finalized, those requirements will be appended to the plan. LMDC needs to provide this information to the regulatory agencies for their review and acceptance prior to beginning the project.

Subsection 7. Travel Routes

94. LMDC states in this subsection that the proposed abatement subcontractor's *Proposed Waste Removal and Transportation Procedures* are currently under review and that the approved procedures will be appended to this plan. LMDC needs to provide this information to the regulatory agencies for their review and acceptance prior to beginning the project.

Subsection 8. Disposal Facilities

95. The second paragraph of this subsection states that potential disposal facilities will be contacted to determine if they have any facility-specific waste sampling requirements that were not met during the initial waste sampling effort, and based on facility-stated needs, additional sampling may be required. LMDC needs to provide details on the timing and sequencing of this activity since the Waste Sampling and Management Plan in one subsection seems to imply that waste streams will be directly packaged/containerized and immediately shipped off-site based on the initial waste sampling effort. Nowhere in the Waste Sampling and Management Plan does LMDC propose, or provide the methodology for meeting disposal facilities potential additional sampling needs. LMDC needs to provide clarity on all of these issues and revise the plan.

Subsection 9. Documentation

96. The portion of this subsection that discusses universal waste documentation should be revised to include a requirement for developing and maintaining an inventory of universal wastes accumulated, including relevant quantity and accumulation time limits.

Attachment 1 – List of Potential Hazardous and Universal Waste

97. Note 2 of Attachment 1 needs to include the following sentence which is already specified in Note 3 of the attachment, "Disposal will be in accordance with 40 CFR 761 and 6 NYCRR Subpart 371.4(e)."

98. The Disposal Options column for the Ballasts Potential Waste Stream of Attachment 1 should also include the following wording, "Note 2", following the first sentence.

99. Oxygen and propane tanks/bottles need to be included in Attachment 1. Please refer to NYSDEC's January 6, 2005 comment letter (comment #8 on page 5) on how such items need to be disposed (i.e., hazardous waste-D001) and update Attachment 1 accordingly.

100. Miscellaneous bagged accumulated waste need to be included in Attachment 1.

101. Note 8 of Attachment 1 needs to include the following wording at the end of the first sentence since this note pertains to disposal options, "…and disposed accordingly pursuant to its waste designation."

102. The last sentence in Note 9 of Attachment 1 needs to be stricken from the Waste Sampling and Management Plan. It is premature to state that the WTC dust can be managed as a non-hazardous waste based on very limited preliminary data and since LMDC states throughout the Waste Sampling and Management Plan that the dust will be characterized for final waste disposal purposes.

Attachment 2 – Sample Management, Labeling, and QA/QC

103. The June 2005 revised draft Waste Sampling and Management Plan states that a QAPP will be provided to the regulators at a later date. LMDC needs to provide the QAPP to the regulatory agencies for their review and acceptance prior to beginning the project.

104. Revise the first sentence to read: "...they will be designated by an alpha-numeric code..."

105. The portion of the third sentence which mentions a "building code" does not appear to pertain to any of the five sample sub-codes noted in the previous sentence. LMDC

may have been referring to a “floor code” as opposed to a building code. If so, please revise the third sentence to read, “...the floor code designates the floor from which...” If not, please explain what the sub-codes will consist of and revise this subsection accordingly.

SECTION 2 – AMBIENT AIR MONITORING PROGRAM

General Comments

1. EPA suggests you adopt the same substantive criteria/requirements within the ambient air monitoring plan applied during the abatement and demolition of 4 Albany Street.

2. The June 2005 version of the Ambient Air Monitoring Program states that there will be a Preparation Phase which will include: erection of scaffolding and hoists on the entire exterior of the building; erection of sidewalk sheds; and removal of existing netting. Prior information provided to the regulators indicated that exterior abatement work, and roof, façade, and general exterior areas requiring clean-up would be addressed as part of the Phase I portion of the project. The June 10, 2005 variance decision amendment from the DOL dealing with asbestos for the majority of the aforementioned work and the June 23, 2005 variance decision amendment for the rooftop cooling tower transite and caulking materials were based in part on representations from LMDC that these activities would be conducted as part of Phase I, with the exception of the rooftop cooling tower transite and caulking materials removal that LMDC indicated would be part of Phase II of the deconstruction. DOL reviewed and approved these requests understanding that the activities specified in the variances were part of Phase I, with the potential that the rooftop cooling tower transite and caulking materials may be removed in either Phase I or Phase II. Additionally, LMDC stated in the third paragraph of the Waste Sampling and Management Section that Phase I of the Deconstruction Project includes the cleaning of exterior surfaces as necessary to facilitate the erection of the man-hoist and the crane.

Revision of this subsection, and any other subsection of the Draft Deconstruction Plan where reference is made to the "Preparation Phase", is needed to state that this work will be conducted as part of Phase I activities. The conditions specified in the June 10, 2005 and June 23, 2005 DOL variance decision amendments would apply regardless of the manner in which LMDC interprets the phases for this project. For example, this variance decision requires proposed air monitoring for contaminants other than asbestos must be submitted to the regulatory agencies for their review and acceptance prior to commencement of any work, including, but not limited to, scaffolding installation, exterior regulated abatement work areas, façade cleaning, netting removal, hoist/scaffold tie-ins and tent enclosure work.

3. Although the Lower Manhattan Construction Command Center (LMCCC) Special Purpose Air Quality Monitoring Program (AQMP) includes $PM_{2.5}$ neighborhood monitoring during major lower Manhattan construction activities (including the deconstruction of 130 Liberty Street), AQMP air sampling protocols are not yet complete. EPA understands that LMCCC will prepare detailed AQMP protocols only after background monitoring data is completed but "prior to the peak cumulative construction period." As a result, the AQMP may not be implemented by the beginning of the abatement/deconstruction work at 130 Liberty Street. The AQMP protocols

specific to 130 Liberty Street need to be integrated into this section of the Draft Deconstruction Plan. The AQMP needs to be reviewed and accepted by EPA in order for EPA to accept the Draft Deconstruction Plan.

4. $PM_{2.5}$ should be monitored at the perimeter of the project site to supplement the $PM_{2.5}$ neighborhood monitoring noted in the AQMP. In addition, the Draft Deconstruction Plan states that QA/QC measures will be addressed in a QAPP which will be prepared and issued at a later date. LMDC needs to provide the QAPP to the regulatory agencies for their review and acceptance prior to beginning the project.

5. A subsection needs to be included in the Ambient Air Monitoring Program Section of the Deconstruction Plan that incorporates the following language with regards to visible emissions during the deconstruction project:

"Visible emissions

1. Abatement Phase

During each work shift, the Environmental Consultant will be tasked with observing the Building's containment barriers and exterior. Special attention will be paid to established isolation barriers and area(s) of high emission potential to identify any visible emissions. If any visible emission is noted exterior of the work area, the work will be stopped and an immediate evaluation of in-place engineering controls for the emission location by the Environmental Consultant will take place. The evaluation may include, but is not limited to, work activities and smoke testing of the isolation barriers. Any damaged or malfunctioning engineering control will be repaired immediately. The work will not be restarted until engineering controls are repaired or determined to be functioning properly.

2. Demolition Phase

During each work shift, the Environmental Consultant will observe demolition operations to monitor visible dust in the air and suppression measures being applied by the demolition contractor. The Environmental Consultant may, depending on the severity and duration of dust condition, order a stoppage of the work or require modified work practices to reduce visible dust.

3. Notification

The EPA Region 2 office and NYCDEP will be notified as promptly as reasonably possible of any visible emissions observed by the Environmental Consultant to cross the property line of the Building, and the Environmental Consultant will subsequently promptly advise the EPA Region 2 office and NYCDEP of the corrective actions taken."

Specific Comments

Table of Contents: Figures

6. Figure 1 (Network Schematic- Site Location Map and Locations of Proposed Air Monitoring Stations) is missing from the Ambient Air Monitoring Program Section of the Draft Deconstruction Plan and the composite wind rose representative of the New York Metropolitan area which is stated to be included in Figure 1. Incorporate the figure.

Subsection 1.3. Overview of Air Quality Monitoring Programs and Features

7. All three components or levels of air monitoring proposed by LMDC in this subsection need to be discussed for all phases of the deconstruction project. The last paragraph of Subsection 1.1 (Project Background and Evolution) clearly states that the *Ambient Air Monitoring Program for the 130 Liberty Street Deconstruction Project* will be implemented during the Preparation Phase, Phase I, and Phase II. Revise this subsection.

Subsection 2.3. Locations of Monitoring Stations

8. In general, the currently proposed monitoring station locations around the perimeter of the building, as described in Table 1, appear reasonable, but require additional monitoring locations. Figure 1 which is intended to show the exact location of these monitoring stations is missing from the Draft Deconstruction Plan. EPA requires submission of Figure 1 to determine the acceptability of the monitoring stations, in addition to the monitoring stations requested below by EPA.

9. In addition to the three monitoring station locations at elevation specified in Table 1, a fourth elevated monitoring location is needed at the southwest end of the 130 Liberty Street building along Washington Street and Albany Street. The fourth elevated monitoring location would be sampled for the same parameters as the other seven street level and elevated level stations. Therefore, Figure 1, Table 1, Table 3 and Table 4 should be revised to include this additional monitoring station.

10. It will be beneficial to have air monitoring stations located on all four sides of the scaffolding. These four monitoring stations would be re-located on the scaffolding as the abatement and demolition work progressed from the roof level to ground level. These "floating" monitoring stations will be initially located at the bottom floor of the initial top three building floors to be abated. This initial location of the four "floating" monitoring stations will also be expected to monitor all of the rooftop work prior to their re-location to subsequent floors. These "floating" monitoring stations will then be re-located to the bottom floor of the next series of floors to be abated. In effect, these "floating" monitors are intended to monitor abatement and demolition work occurring immediately above them. The scaffolding monitoring locations would be sampled for the same parameters as the eight street level and elevated level stations during the abatement and demolition

phases. Therefore, Table 1, Table 3 and Table 4 should be revised to include these additional monitoring stations.

Subsection 3.2. Preparation Phase

11. Since portions of the Phase I activities are referenced as "the Preparation Phase," LMDC needs to add the following language to this subsection, "The Preparation Phase air monitoring will follow the same schedule and frequency as described below in Phase I and will commence with the start of Preparation Phase site work."

12. LMDC states that the Phase II work will include "the exterior abatement." EPA understands that exterior abatement work will be part of the Phase I activities. Therefore, this subsections needs to be revised accordingly.

Subsection 3.3. Phase I - Asbestos and COPC Abatement

13. LMDC states that the Phase II work will include the cleaning of the exterior, the roof, and roof equipment; and, states that "abatement" is a portion of the Phase II work. If roof, façade and general exterior areas requiring clean-up will be cleaned as part of the Phase I activities, with the exception of the rooftop cooling tower transite and caulking materials, this subsection needs to be revised to state that information clearly.

Subsection 3.4. Phase II – Structural Deconstruction

14. LMDC states that the Phase II work will include the cleaning of the exterior, the roof, and roof equipment. If roof, façade and general exterior areas requiring clean-up will be cleaned as part of the Phase I activities, with the exception of the rooftop cooling tower transite and caulking materials, this subsection needs to be revised to state that information clearly.

15. The June 23, 2005 DOL variance decision amendment was in reference to the removal of rooftop cooling tower transite and caulking materials. The first bullet item in this subsection also discusses the removal of exterior façade aluminum panel ACBM caulking and localized removal of exposed exterior spray-on fireproofing as part of Phase II. It is our understanding that these other materials would be removed as part of the Phase I work and that the rooftop cooling tower transite and caulking materials may be removed in either Phase I or Phase II. LMDC should revise the Draft Deconstruction Plan to reference correctly the other materials to be removed under the Phase I activities discussed in Subsection 3.3.

Subsection 4.0 Target Parameters/COPCs

16. LMDC states that the target parameters identified for monitoring during the 4 Albany Street abatement and demolition program were considered in developing the list of target parameters for the 130 Liberty Street building. Further, LMDC states that most notably, the Ambient Air Monitoring Program adopts the two tiered system of action

levels approved for use at 4 Albany Street. LMDC should specify $PM_{2.5}$ on the list of target parameters to be included in the monitoring program since it was an analyte specified in the 4 Albany Street monitoring program. It is essential that these emissions from the deconstruction be controlled and monitored.

Subsection 5.0 Sampling and Analyses Methodology

17. This subsection discusses four phases, if LMDC plans on conducting four phases, then the word "three" should be replaced with "four" in the second sentence.

18. The detection limits for XRF metals analysis may be too high to achieve the action levels listed in the plan. ICP-MS, rather than XRF, would be a more appropriate method.

19. The plan does not indicate how particulate phase mercury will be collected. This information needs to be stated in this subsection.

20. Please ensure that the Met One E-BAM utilized includes a heated inlet to address condensible emissions.

21. Table 2 (Summary of Sampling and Analyses Methods) discusses sampling rates for various analytes. LMDC states that the sampling rate for respirable crystalline silica and dust will be 2.5 liters per minute (lpm) collected over a 24-hour integrated time period using sampling method NIOSH 0600/7500. NIOSH methods 0600 and 7500 indicate that its maximum sampling volumes are 400 and 1000 liters, respectively. Please explain if the LMDC proposed sampling rate collected over a 24-hour period will exceed the NIOSH maximum volume. If so, explain the reasons that the proposed sampling rate will be sufficient for the sampling and analysis of this analyte. This same question also applies to the proposed sampling rate (1000 lpm) for the metals in comparison to the working range specified in 40 CFR Part 50 App. B.

Subsection 6.2. Preparation Phase

22. If LMDC refers to portions of the Phase I activities as "the Preparation Phase" LMDC needs to revise the title of Table 3 to read, "Preparation Phase and Phase I - Abatement Phase Sampling and Analysis Summary" since this subsection states that the Preparation Phase air monitoring will follow the same schedule and frequency as described below in Phase I and will commence with the start of Preparation Phase site work or develop a separate table for the Preparation Phase.

23. If LMDC refers to portions of the Phase I activities as "the Preparation Phase" LMDC needs to add the following sentence to this subsection: "During the Preparation Phase, air monitoring will take place at the eight (8) monitoring stations at street level around the perimeter of the building and at the elevated locations on surrounding buildings each day." Revise this subsection accordingly.

Subsection 6.3. Phase I – Asbestos and COPC Abatement Phase

24. Change "seven (7)" to "twelve (12)" throughout this subsection with regards to the number of air monitoring stations to be used during Phase I.

Subsection 6.4. Phase II – Structural Deconstruction

25. Change "seven (7)" to "twelve (12)" throughout this subsection with regards to the number of air monitoring stations to be used during Phase II.

Subsection 8.0 Action Levels and Mitigation Measures

26. LMDC states that the Ambient Air Monitoring Program adopts many of the features of the 4 Albany Street monitoring program. Most notably, the Ambient Air Monitoring Program adopts the two tiered system of action levels approved for use at 4 Albany Street. Chromium VI needs to be added to Table 5 (Target Air Quality Levels and USEPA Site Trigger Levels) of LMDC's Ambient Air Monitoring Program since it was an analyte specified in the 4 Albany Street monitoring program. LMDC should specify a level of 0.6 ug/m^3 for Chromium VI in the "USEPA Site Specific Trigger Levels" column of Table 5.

27. A footnote needs to be added to the chromium row of Table 5. The footnote should be designated as footnote number "3" and state the following: "If a chromium value is in excess of the Target Air Quality Level (0.6 ug/m^3), this will result in a stoppage of work; and, that sample should be speciated for chromium VI to determine that its concentration does not exceed the USEPA Site Specific Trigger Level for chromium VI (0.6 ug/m^3), and the appropriate actions pertaining to an excess of the USEPA Site Specific Trigger Level for chromium VI will continue to be conducted."

28. Remove footnote "a" from Table 5.

29. A footnote needs to be added to Table 5 to the column titled "Target Air Quality Levels" and designated as footnote number "1." The footnote needs to state the following: "A cumulative average after the first week of sampling, except for $PM_{2.5}$ and PM_{10}".

30. A footnote needs to be added to Table 5 to the column titled "USEPA Site Specific Trigger Levels" and designated as footnote number "2." The footnote needs to state the following: "A 24-hour value".

Subsection 8.1.1 Target Air Quality Levels

31. Even though LMDC discusses an air quality monitoring program that LMCCC will be conducting during the lower Manhattan rebuilding process that will include $PM_{2.5}$, LMDC should revise the first paragraph to read as follows, "Any 24-hour $PM_{2.5}$ and PM_{10} value in excess of the Target Air Quality Level will be considered an "exceedance"

and the actions described below will be taken" to address concerns pertaining to the deconstruction activities being conducted at the 130 Liberty Street building.

32. The second paragraph should be revised for clarity to read as follows: "During the first week of sampling, any sample of an analyte, other than $PM_{2.5}$ and PM_{10}, in excess of 3 times the Target Air Quality Level for that analyte, unless superseded by an EPA Site Specific Trigger Level, will be considered an exceedance and the actions described below will be taken."

33. It is our understanding that the "cumulative average" referenced in the third paragraph would be equal to the average of the first five days of sampling (representing the first week of sampling) to which will be added daily values as results are received from the laboratory. The Target Air Quality Level would be exceeded if either the "cumulative average," or 3 times the 24 hour Target Air Quality Level (during the first week only), is exceeded. Please confirm whether this assumption is correct.

34. Additionally, the following sentence should be added to the end of the third paragraph, "A cumulative average value for any analyte, other than $PM_{2.5}$ and PM_{10}, in excess of the relevant Target Air Quality Level will be considered an exceedance of Target Air Quality Level and the actions described below will be taken."

Subsection 9.0 Exceedance Notification

35. In order to aid EPA data review, please provide 24 hour averages and graphical data for all continuous sampling data collected.

SECTION 3 – EMERGENCY ACTION PLAN FOR DECONSTRUCTION OPERATIONS

General Comments:

1. The Emergency Action Plan (EAP) needs to provide detailed step by step procedures to be conducted for the various emergency situations to be encountered during the project and LMDC needs to provide citations for the basis for these step by step procedures. LMDC needs to indicate which city agencies responsible for responding to emergencies in New York City have reviewed, provided comments on, and approved the EAP.

2. A list of emergency equipment (e.g., fire extinguishers, spill control equipment, communications and alarm systems, decontamination equipment, etc.), including the location, physical description, and capabilities of each item listed should be incorporated into the EAP. It is recommended that the site evacuation maps that LMDC states will be posted throughout the facility for emergency evacuation include the location of the emergency equipment on that floor. Items such as fire extinguishers should be clearly marked and signs should be prominently posted.

3. An additional appendix should be incorporated into the EAP that lists the names and contact information of the Contractor Emergency Coordinator, the Alternate Contractor Emergency Coordinator, the Subcontractor Emergency Coordinators and their alternates.

Subsection 1. Introduction

4. The EAP needs to be re-numbered since it appears that each page is numbered as "i". Revise the EAP accordingly.

5. The June 2005 version of the EAP states that there will be a Preparation Phase which will include: erection of scaffolding and hoists on the entire exterior of the building; erection of sidewalk sheds; and removal of existing netting. Prior information provided to the regulators indicated that such activities would be addressed as part of the Phase I portion of the project. The June 10, 2005 variance decision amendment from the DOL was based in part on representations from LMDC that these activities would be conducted as part of Phase I. DOL reviewed and approved these requests understanding that the activities specified in the variances were part of Phase I. Additionally, LMDC stated in the third paragraph of the Waste Sampling and Management Plan Section that Phase I of the Deconstruction Project includes the cleaning of exterior surfaces, as necessary, to facilitate the erection of the man-hoist and the crane.

Revision of this section, and any other section of the Draft Deconstruction Plan where reference is made to the "Preparation Phase", is needed to state that this work will be conducted as part of Phase I activities. The conditions specified in the June 10, 2005 DOL variance decision amendment would apply regardless of the manner in which LMDC interprets the phases for this project. For example, this variance decision requires proposed air monitoring for contaminants other than asbestos must be submitted to the regulatory agencies for review and acceptance prior to commencement of any work,

including, but not limited to, scaffolding installation, exterior regulated abatement work areas, façade cleaning, netting removal, hoist/scaffold tie-ins and tent enclosure work.

Subsection 3. Location of the Plan

6. The EAP states that a copy of the EAP will be available at the entrance to the remote personnel decontamination unit located in cellar "A" as indicated in Section 4 (Asbestos and COPC Abatement and Removal Plan) of the Deconstruction Plan. Recommend simply indicating that a copy of the EAP will be maintained at "the personnel decontamination unit" in case the location currently referenced changes during the course of the project.

7. The Lower Manhattan Construction Command Center (LMCCC) should be added to the list of city and state governmental agencies that will be provided a copy of the EAP.

8. LMDC should offer a copy of the EAP to the hospitals that are referenced in the EAP for their information.

9. This subsection should also indicate that individual copies of the EAP will be numbered and LMDC and its field office at the building will maintain a log to identify each copy and its location.

Subsection 4. Contractor Emergency Coordinator

10. The EAP states that the name and contact information of the alternate Contractor Emergency Coordinator will be provided to LMDC and all Subcontractor Emergency Coordinators. The name and contact information of the alternate Contractor Emergency Coordinator also needs to be provided to all of the city, state, and federal government agencies and specified in the EAP.

Subsection 5.1. Pre-Planning and Subsection 5.3 Emergency Response Coordination

11. LMDC states that prior to the commencement of work activities, the Contractor Emergency Coordinator will meet with appropriate representatives from the City Agencies. LMDC should revise the EAP to indicate that it will inform all city, state, and federal government agencies identified in Subsection 3 of the EAP of any potential meetings to discuss any elements of the EAP to ensure that all entities may have an opportunity to attend such meetings if those agencies feel their attendance is appropriate.

12. The EAP states that first aid kit(s) will be placed within the Contractor's field office and the Building Security Checkpoint Desk. It is recommended that first aid kit(s) also be placed within the personnel decon unit(s).

13. The EAP states that an audible evacuation signal (i.e., a site air horn) will sound through a temporary radio communication system to be installed and maintained by the

Demolition Subcontractor. Will the demolition subcontractor be conducting the activities that will be occurring at the beginning of the deconstruction activities (e.g., abatement activities, the scaffolding erection, and the exterior netting/mesh removal activities)? If not, then the responsibility for the audible evacuation signal and the temporary radio communication system will need to be shifted to another entity since these items need to be operational at the beginning of the deconstruction activities at 130 Liberty Street, not only during the demolition portion of the project.

14. This subsection states that at the conclusion of the test of the audible evacuation signal each day, all Subcontractor Emergency Coordinators will poll their personnel to ensure the alarm was audible in all locations and report back to the Contractor Emergency Coordinator. The results of that poll and the corrective measures taken, if necessary, should also be documented daily in the project log by the Contractor Emergency Coordinator.

Subsection 5.2.4. Drills

15. The EAP states that the Contractor Emergency Coordinator will notify LMDC in advance of any drills. This subsection should also indicate that LMDC will inform the appropriate city, state, and federal government agencies as well.

Subsections 5.2.1. Contractor Emergency Coordinator and 5.2.2. Subcontractor Emergency Coordinators

16. The EAP states that its Emergency Coordinator or a designated representative has been trained in the OSHA Disaster Site Worker Outreach Program and that the designated Subcontractor Emergency Coordinators shall have successfully completed the OSHA 30 hour course. Will LMDC be requiring similar training for the alternates to the Emergency Coordinator and the Subcontractor Emergency Coordinators?

Subsection 6.1. Reporting Emergencies

17. This subsection states that all site personnel, upon discovering an emergency situation, shall immediately call 911 prior to notifying the Contractor Emergency Coordinator. Should the Contractor Emergency Coordinator be the first individual to be notified since one of the roles of that individual is to contact the first responders at 911 and that individual has the overall responsibility to determine the immediate actions that may need to be taken with regard to personnel safety while first responders are in-transit to the building?

Subsection 6.4. Site Evacuation Process

18. This subsection states that the Contractor Emergency Coordinator will be responsible for calling 911 first and then signaling the audible evacuation alarm (two (2) long blasts of the site air horn will sound through the Building's temporary radio communication system). Should the audible evacuation alarm be triggered first to give personnel time to

evacuate the building since critical time may be lost in safely evacuating personnel while the Contractor Emergency Coordinator is providing details to first responders on the phone? LMDC should consider if both actions need to be conducted simultaneously and determine if the Contractor Emergency Coordinator should delegate the responsibility to one of his colleagues for either calling 911 or sounding the alarm while he/she conducts the other action.

Subsection 6.6. Key Agency Notification

19. This subsection states that in the event of an emergency situation resulting in the implementation of any aspect of this EAP, LMDC will notify the appropriate Government Agencies as warranted by the situation. LMDC should also note that the appropriate City Agencies will also be notified as warranted by the situation.

Subsection 7.1. Fire or Explosion

20. In the event of an explosion or a fire, should the Contractor Emergency Coordinator, in conjunction with others as appropriate (e.g., the Subcontractor Emergency Coordinators), make a determination whether to implement a building evacuation while the incident is being explored? Should the Contractor Emergency Coordinator communicate such decisions to all of the Subcontractor Emergency to inform them of the nature and location of the emergency and the actions being initiated including whether it is safe for personnel evacuating the building to decontaminate? This subsection should also indicate that if work is stopped in a certain area due to a fire or an explosion, work will not resume until the Contractor Emergency Coordinator verifies that appropriate corrective actions have been taken.

Subsection 7.2. Power Failure

21. This subsection seems to imply that in the event of a power failure, the Contractor Emergency Coordinator shall immediately call 911, if warranted, first. To initiate a timely response for the safety of the personnel, LMDC should consider if it may be appropriate to start the emergency generator, if it is not designed to start automatically during a power failure, and to first notify the on-site electrician, or perhaps have the Contractor Emergency Coordinator assign the calling of 911 to one of his or her subordinates to be conducted in conjunction with the start-up of the emergency generator and the notification of the on-site electrician.

Subsection 7.3. Structural Failure

22. This subsection states that in the event of a structural failure, the Contractor Emergency Coordinator shall immediately call 911 and initiate EAP, including Building evacuation procedures. The last portion of this statement is too vague. LMDC should consider, at a minimum including all of the procedures specified under Subsection 6.4 (Site Evacuation Process) of the EAP, if an evacuation is warranted. Further, this subsection should also state that if work is stopped in a certain area due to the structural

failure, work will not resume until the Contractor Emergency Coordinator verifies with the appropriate city and/or governmental agencies that appropriate corrective actions have been taken.

Subsection 7.4. Unplanned Release of Hazardous/Regulated Waste

23. This subsection states that specific procedures for notification to the appropriate regulatory agencies and remediating any releases are addressed in the Deconstruction Plan. The specific procedures for notification are not specified in detail anywhere in the Draft Deconstruction Plan. Those specific procedures for notification need to be incorporated into this subsection.

24. The fourth paragraph of this subsection states that "NYSDEP" will be notified. EPA believes that this is a typo that was meant to read, "NYSDEC." LMDC did not mention that NYCDEP also needs to be notified. In addition, Section 2 (Ambient Air Monitoring Program) of the Deconstruction Plan states that work will be reinitiated once the USEPA Region 2 has agreed (and NYSDOL during the Abatement Phase in the case of asbestos exceedances) to the corrective action(s) proposed to prevent the potential for exceedances in future work and such corrective actions have been implemented. Revise the EAP accordingly to incorporate all of this additional information.

Subsection 7.6. Falling or Dropped Building Components

25. This subsection says to call 911 first, if warranted, then the applicable Subcontractor Emergency Coordinator must immediately notify the Contractor Emergency Coordinator either verbally or via cellular telephone. Should the Contractor Emergency Coordinator be notified first since the Contractor Emergency Coordinator will also be responsible for calling 911 and critical time may be lost in taking preventative actions? This subsection should also indicate that if work is stopped in a certain area due to the falling or dropped building components and/or debris, work will not resume until the Contractor Emergency Coordinator verifies that appropriate corrective actions have been taken with the appropriate city and/or governmental agencies.

Subsection 8. EAP Investigation and Report

26. For reports that may be generated due to incidents pertaining to RCRA, TSCA, universal and/or asbestos waste, the following information should also be included within the report: name and telephone number of reporter; date, time, and type of incident (e.g., release, fire); name and quantity of material(s) involved, to the extent known; the extent of injuries, if any; an assessment of actual or potential hazards to human health or the environment, where this is applicable; and estimated quantity and disposition of recovered material that resulted from the incident. The reports should be provided to the appropriate city and/or governmental agencies within 48 hours after the incident.

27. This subsection states that LMDC will be informed of all investigation related events in advance so they have the opportunity to attend as they deem appropriate. The EAP should be revised to indicate that LMDC will inform all other appropriate City and/or

Governmental agencies (as defined by LMDC in the EAP) of all investigation related events in advance so they have the opportunity to attend as they deem appropriate as well.

Appendix A - Emergency Response Communication Chart

28. The EAP states that the Contractor Emergency Coordinator has overall responsibility for this EAP and will ensure that all required activities of the EAP are met. In addition the EAP states that the Contractor Emergency Coordinator has the lead role in directing all responses to circumstances covered under this EAP. Further, the Contractor Emergency Coordinator will be the liaison to the First Responder agencies for pre-planning collaboration. Therefore, the flow chart needs to be revised to place the Contractor Emergency Coordinator on top of the flow chart and shifting the LMDC On-Site Emergency Coordinator into the second box of the chart.

29. The EAP states that the Contractor Emergency Coordinator will contact all Subcontractor Emergency Coordinators via cellular phone and/or site radio system to inform them of the nature and location of any emergency. Therefore, the flow chart needs to be revised to indicate that the Subcontractor Emergency Coordinators will be contacted.

30. Appendix F of Section 3 of the June 2005 Draft Revised Deconstruction Plan states that Appendix A specifies the following regulatory agencies that will be notified of an incident: U.S. Environmental Protection Agency, U.S. Occupational Health and Safety Administration, New York State Department of Environmental Conservation, New York State Department of Labor, New York State Department of Health, New York City Department of Environmental Protection, and New York City Department of Buildings. Appendix A does not specify the names and contact numbers for the points of contact for these regulatory agencies. In addition, the point of contact and contact number for LMCCC should be included as well. The flow chart needs to be revised to include this information and showing that the LMDC representative(s) will be contacting them.

31. The name and contact information of the alternate Contractor Emergency Coordinator will need to be incorporated into the flow chart as well.

Appendix D - Emergency Egress from Building

32. Appendix D should include a figure showing the emergency egress from the roof.

Appendix E - Hospital Route Map with Directions

33. Appendix B of the EAP references three hospitals that may be used: NYU Downtown (Medical Emergency), The NY Hospital-Cornell Medical Center (Burns), and New York Ear & Eye Infirmary (Eye Injury). Appendix E currently only discusses the procedures to be used to reach the NYU Downtown hospital. Appendix E should be

revised to discuss the procedures, provide directions to, and a map to reach, the other two hospitals as well since those hospitals will be used for cases of burns and eye injuries.

Appendix F – Community Notification Plan

General Comments:

34. The Community Notification Plan refers to the overall plan for this project as the "Phase I Deconstruction Plan" even though LMDC has made the decision in the June 2005 version of the plan to call it the "Deconstruction Plan". Reference to the correct title of the latest version of the Draft Deconstruction Plan needs to be used throughout the document.

Subsection 1. Introduction

35. Reference is made to the May 2005 version of the plan even though the latest version of the plan is dated June 2005. Revise this subsection accordingly.

36. The second sentence states that the EAP is for Phase I activities. If so, when does LMDC plan on submitting the EAP for the Phase II activities since both Phase I and Phase II are now referenced throughout all of the other sections of the revised Draft Deconstruction Plan. If the EAP is to be used for all phases of the deconstruction project this subsection needs to be revised accordingly.

Subsection 3.4. Regulatory Agencies

37. The first sentence should read as follows for clarity, "…Emergency Response Communications flowchart in Appendix A of Section 3 (Emergency Action Plan) of the Deconstruction Plan)."

38. LMCCC should be included as an agency that will be notified of an incident at the building.

SECTION 4 – ASBESTOS AND COPC ABATEMENT AND REMOVAL PLAN

1. EPA understands that many of the elements of the NYSDOL responses to LMDC variance requests have not been fully incorporated into the June 2005 version of this section. As you may know, EPA has fully participated with NYSDOL in the review and responses to your variance requests. EPA looks forward to reviewing a revised Asbestos and COPC Abatement and Removal Plan upon your incorporation of the substantive feedback you have received from NYSDOL through the variance request/response process, as well as any other pertinent comments provided herein.

SECTION 5 – HEALTH AND SAFETY PLAN (HASP)

General Comments:

1. The June 2005 version of the Health and Safety Plan (HASP) states that there will be a Preparation Phase which will include: erection of scaffolding and hoists on the entire exterior of the building; erection of sidewalk sheds; and removal of existing netting. Prior information provided to the regulators indicated that these activities would be addressed as part of the Phase I portion of the project. The June 10, 2005 variance decision amendment from DOL dealing with asbestos for the majority of the aforementioned work was based in part on representation from LMDC that these activities would be conducted as part of Phase I. DOL reviewed and approved these requests understanding that these activities specified in the variance were part of Phase I. Additionally, LMDC stated in the third paragraph of the Waste Sampling and Management Plan Section that Phase I of the Deconstruction Project includes the cleaning of exterior surfaces, as necessary, to facilitate the erection of the man-hoist and the crane.

Revision of this section of the Deconstruction Plan, and any other sections of the Draft Deconstruction Plan where reference is made to the "Preparation Phase", is needed to state that this work will be conducted as part of Phase I activities. The conditions specified in the June 10, 2005 DOL variance decision amendment would apply regardless of the manner in which LMDC interprets the phases for this project. For example, this variance decision requires proposed air monitoring for contaminants other than asbestos must be submitted to the regulatory agencies for review and acceptance prior to commencement of any work, including, but not limited to, scaffolding installation, exterior regulated abatement work areas, façade cleaning, netting removal, hoist/scaffold tie-ins and tent enclosure work.

2. Reference is made to a "cement chute" in the HASP. However, it is not clear what this chute will be used for or what the specifications for this chute are. LMDC must clarify this issue.

Specific Comments:

Subsection 1. Introduction and Subsection 1.4. Objectives

3. This subsection states that the Phase II work will consist of cleaning of the exterior, the roof and roof equipment, abatement and removal of roof-top asbestos-containing cooling tower transite materials, rooftop caulking, and asbestos-containing caulking found on the aluminum column covers and fascia. In addition, this subsection states that "abatement" is a portion of the Phase II work. As noted in the comments, roof, façade and general exterior areas requiring clean-up will be conducted as part of the Phase I portion of the project, except for the rooftop cooling tower transite and caulking materials which may, if acceptable, be removed in either Phase I or Phase II. The Draft Deconstruction Plan needs to specify in these portions of the subsection, and any other

subsection of the Draft Deconstruction Plan where reference is made to Phase II, that the aforementioned work will be conducted as part of Phase I.

Subsection 2.2.1. Preliminary Evaluation

4. Antimony should be added to the list of potential chemical hazards.

Subsection 2.2.2. Task Hazard Analysis

5. This subsection states that Phase II Deconstruction activities includes cleaning of the building exterior (i.e. building washdown), abatement and removal of roof-top asbestos containing cooling tower transite materials, rooftop caulking and asbestos containing caulking found on the aluminum column covers and fascia. EPA understands that these activities will be part of the Phase I activities except for the rooftop cooling tower transite and caulking materials which may be removed potentially during either Phase I or Phase II. Therefore, this subsection and any other subsection of the HASP that references the activities to be conducted under the different phases needs to be revised accordingly.

Subsection 2.2.4.1. Additional Identified Chemicals

6. Antimony and lead should be added to the list of potential chemical hazards noted in the first paragraph.

Subsection 2.11.1. Container Labels

7. Revise to require labeling of all hazardous materials containers for content, hazard, and storage prohibitions, such as those relating to temperature range and chemical incompatibility with other materials and/or wastes. The labels should be in compliance with requirements of New York State law.

8. Containers containing hazardous waste should also be labeled or marked clearly with the words, “Hazardous Waste”. Revise the HASP accordingly.

July 26, 2005

Pat Evangelista
US EPA
290 Broadway
New York, NY

Re: General Comments on Asbestos Abatement/WTC Dust Cleanup Portion of LMDC Draft Deconstruction Plan, dated June 13, 2005
Vacant High Rise Office Building
130 Liberty Street
New York, NY

Dear Pat,

The Department has reviewed the June 13, 2005 LMDC Draft Deconstruction Plan, as it relates to asbestos material (ACM) removal and cleanup of the WTC dust/residue. Several significant items within the plan must still be revised for consistency with the existing asbestos project site-specific variance decisions, and to address other Departmental concerns.

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

General Comments

- The sequencing of asbestos project work for the entire deconstruction project is inconsistent throughout the plan. For example:
  - Section 1 of the plan indicates that Phase I includes a three floor buffer at the top of the building, then two floors buffer after that. This buffer floor modification was not apparent elsewhere in the plan. Also, the description of work for Phase II does not include rooftop or façade ACM removals.
  - According to section 2 of the plan, Phase II includes structural deconstruction and façade/rooftop cleaning as well as rooftop abatement. However, elsewhere in the plan the façade cleaning is indicated as being scheduled to occur during the scaffolding installation Preparation phase.
  - According to section 4 of the plan, the Preparation phase shall include scaffold installation, netting removal, and exterior cleaning necessary for commencement of Phase I operations. If a portion of Phase I or II asbestos project work will be completed during the Preparation phase, all intended asbestos project work should be clearly identified for this phase, with the sequencing of the work included as it is intended to occur within Preparation phase.

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- In addition, within section 4 it is indicated that Phase II activities will not commence until all Phase I activities are complete on the top three floors, Then the cleaned and cleared floors may be deconstructed during Phase II operations. Realistically, the rooftop ACM abatement and WTC dust/residue cleanup should occur prior to or concurrently with asbestos project work on the top floors. It would be difficult if not impossible to start on the deconstruction of the top floors prior to rooftop asbestos project work being completed.

- For clarity, all intended asbestos project work should be identified for each phase of the deconstruction project, with the sequencing of work included as intended within each phase. The specified sequence of work should be consistent throughout the entire deconstruction plan.

- Within the plan, no reference was included regarding the Phase II variance decision #05-0813 for rooftop transite and caulking removals. In addition, a large portion of the asbestos project procedures included within section 4 are not consistent with the existing site-specific variance decisions, variance decision amendments/reopenings, and clarifications. The entire document should be revised to include all approved asbestos project procedures as per the site-specific variance decisions, variance decision amendments/reopenings and clarifications.

The Department anticipates that these issues will be appropriately addressed within a revised version of the plan. The owner's asbestos project designer firm must address any additional deviations from ICR 56 with amendment/reopening requests to the existing site-specific variance decisions, or submission of an additional site-specific variance petition, for the ACM abatement and WTC dust/residue cleanup portion of the overall deconstruction project.

Sincerely,

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

ec Krish Radhakrishnan, P.E. - NYC DEP
Gil Gillen – USDOL/OSHA
Robert Iulo – NYC DOB
Richard Fram – NYS DEC
Norma Aird – NYS DOL
04-0427, 05-0813

New York State Department of Environmental Conservation

Comments on
June 13, 2005 Revised Draft Deconstruction Plan

June 30, 2005

(1) NYSDEC does not appear to have received the "Supplemental Investigation Report - Preliminary Waste Characterization Sampling Summary Results", dated Feb 10, 2005 mentioned in sections 1.1 and 4 of the Waste Management Plan (WMP).

(2) In section 4.1.2.1 of the WMP, second-to-last line on page 10, "hazardous waste for chromium" should be changed to "hazardous waste for chromium and cadmium".

(3) In section 4.1.3.2 of the WMP, second-to-last line on page 14, "ie, painted with suspected lead-based paint" should be changed to "eg, painted with suspected lead-based paint", since ACBM may be hazardous for other reasons, such as from cadmium-containing paint.

(4) In section 4.1.4.2 on page 16 of the WMP, "The disposal of all ACBM will be at an approved, licensed and permitted asbestos landfill" should be changed to "The disposal of all removed non-RCRA-hazardous ACBM will be at an approved, licensed and permitted asbestos landfill." In addition, the next sentence's reference to section 7 for the potential disposal facilities should be changed to section 8. (Ditto in sections 4.1.4.1, 4.2.4, and 4.3.4.)

(5) Section 4.4.1 on page 22 of the WMP, first full paragraph: Materials classified as "unknown" may be hazardous waste not only due to the "full RCRA characteristics" but also if they are contaminated with wastes listed in the F, K, P, or U lists. In addition, the paragraph suggests that the analyses described in section 4.1.3 would fully determine if an unknown exhibits one of the RCRA characteristics, but they would not: As commented for the December draft deconstruction plan, the RCRA characteristics have pathways not mentioned in section 4.1.3, such as the corrosion-rate pathway of D002 and the oxidizer pathway of D001. (See also comment 10 below.)

(6) Section 4.4.2.9 of the WMP on page 28 states on the last line that diesel fuel is non-hazardous, but, as commented for the December Deconstruction Plan draft, diesel fuel that is disposed of would potentially be hazardous (D001), since diesel fuel has a flashpoint range of 110-190F.

(7) The attachment 1 entry for "Used Fuel Oils" indicates that they are D001 hazardous waste. Hazardous fuel oils may not be managed under the 374-2 used oil regulations.

(8) The WMP's attachment 1 entry for "Miscellaneous Stored Containers" does not list the "oxidizer", but section 4.4.2.12.3 on page 31 does. (It is noted that oxidizers are generally D001 hazardous waste under 261.21(a)(4). See also comment 5 above.)

(9) The WMP's section 4.3.1's fourth sentence suggests that non-metal, as well as metal, deconstruction waste is exempt if recycled. Only metal deconstruction waste qualifies for the scrap metal exemption that makes their characterization unnecessary.

(10) The WMP's Attachment 3 sentence on page 45 should be changed as follows: "None of the following facilities, or any other facility, may be used without prior written approval by LMDC."

(11) In section 2.11 at items 1 and 4 of the "Asbestos and COPC Abatement and Removal Plan" (ACARP) "mil" thickness is defined as "millimeter". Was mil intended to be defined as thousands of an inch (ie, 1 mil = 0.001 inches)?