



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

MAY 27 2010

REGION 2
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EDISON, NEW JERSEY 08837-3679

CERTIFIED MAIL – RETURN RECEIPT REQUESTED

Mr. Vinicius Castagnola, Vice President
Environmental and Regulatory Compliance
New York City School Construction Authority
30-30 Thompson Avenue
Long Island City, New York 11101

**Re: Consent Agreement and Final Order
Docket Number TSCA-02-2010-9201**

Dear Mr. Castagnola:

Pursuant to the U.S. Environmental Protection Agency's (EPA's) Consent Agreement and Final Order (CAFO), this letter is in response to your April 16, 2010 correspondence transmitting the Remedial Investigation Work Plan (RIWP). Please be advised that the EPA has reviewed the RIWP, and has the following comments (based on a continuing review, EPA may provide supplementary comments in the near future).

General Comments

Compliance with Other Regulations: While our comments focus on polychlorinated biphenyls (PCBs), please note that we expect New York City to comply with any other federal, state or local regulations or requirements that may be applicable, relevant or appropriate to the implementation of the Pilot Study (such as the Lead Renovation, Repair and Painting Rule).

The Remedial Investigation (RI) and Feasibility Study (FS) Report: It appears from the RIWP that one report, a combined RI and FS, will be prepared for the Pilot Study. However, we do not understand how a successful FS (or Pilot Study) can be accomplished as proposed, since there is no provision in the RIWP for the collection of caulk samples to determine the efficacy of the various remedies. FS activities are distinct from the RI, and we have previously provided the School Construction Authority (SCA) with guidance on the development of these documents. We therefore recommend that a separate FS report be prepared, and that a sampling scheme to support an evaluation of the remedies be developed.

Scope of the Sampling Effort: We believe that there is insufficient sampling in the Pilot Schools to produce defensible results. The schools are large (about an acre and a half of floor space in the smallest) and have many rooms (the smallest has 36 classrooms alone) with unknown repair and maintenance histories. We recommend that air and wipe samples be collected in approximately 15% of the class rooms. Furthermore, both the sampling and surveys should cover representative areas in the whole school (not merely focused areas within the schools).

To illustrate the lack of proposed sampling, as an example we have prepared the following table which compares the proposed number of classrooms to be sampled to the potential number of classrooms in each school.

School	Proposed Number of Classrooms	Total Estimated Number of Classrooms
178X/176X	4	58
199M	4	37
309K/712K	4	39
3R	2	36
183Q	2	45

Another concern is that no sampling or surveying is proposed for stairwells or bathrooms. Since stairwells and bathrooms are identified in the NYC PCB Work Plan (attached to the CAFO) as “Transitory Areas”, we see a need for surveying and sampling in these locations. Please also note that, as EPA previously informed the SCA, third-party sampling at PS 199 has shown that PCB caulk is potentially present in at least one stairwell of that school (and those sampling results were provided to SCA).

Air Sampling: The RIWP must provide for documenting the current status of ventilation systems and how they are operated during sampling. The Agency needs information regarding the air exchange rates during sampling and a means of ensuring that the air exchange rates are representative of those that will occur during occupancy.

Wipe Samples: The proposed detection limit for wipe sampling is 1 microgram per 100 square centimeters. We recommend lowering it to 0.1 microgram per 100 square centimeters for risk assessment purposes.

While the figures show proposed sampling locations in “high contact” and “low contact” areas, the text should provide a clear explanation of the criteria for designating an area as being high or low contact (we envision that high contact areas would be surfaces routinely contacted by students, teachers, etc., while low contact areas are all other surfaces). Additionally, the RIWP must also clearly specify the number of wipe samples to be collected at each Pilot School, as well as a description of their locations.

We suggest that at least two composite wipe samples be collected in each area to be sampled (one composite sample from high contact surfaces; the other from low contact surfaces). The composites would be comprised of two discrete wipe samples. For example, in classrooms a composite high contact wipe sample may be collected from a student desk and a classroom table. In hallways, it could be from a wall and a door. However, we caution against compositing discrete samples from painted and non-painted areas if the paint is suspected to contain PCBs.

Soil Sampling: The RIWP explains that soil samples will not be collected at Pilot School 178X/176X, since previous analytical data did not show PCBs above 1 part per million. However, the number and locations of samples that were collected at this school is not consistent with the sampling proposal for the other Pilot Schools (soil at PS 199 has been

remediated and will not be sampled), nor is it consistent with the self-implementing PCB cleanup and disposal notifications that the City has been submitting to EPA for approval. Therefore, we recommend that soil samples be collected at PS 176X/178X, consistent with previously established procedures.

With regard to the *analysis* of soil samples, we strongly recommend that all samples that are collected be analyzed. We do not believe that an approach of analyzing samples on a row-by-row basis, starting with the row of samples closest to the building, will ensure that the soil is adequately characterized. There could be situations where no PCBs are found in the first (closest) row (at 0.5 feet from the building) yet PCBs could be present in the next row (at 3 feet distance). The same logic applies to the 3-foot and 8-foot rows. Since the NYC PCB Work Plan identifies the 10-foot wide strip of soil adjacent to school buildings as an area where there may be significant likelihood of human exposure, we reiterate that all samples collected within this area be analyzed.

Implementation Schedule(s): EPA has several concerns with regard to the implementation schedule. First, there are actually *two* schedules proposed, with one being an “alternative proposed schedule” for implementing the RI and preferred remedies in Pilot Schools 3R and 183Q in June 2011 through August 2011. We also have a concern with both schedules delaying RI activities in 3R and 183Q by a year, while the other Pilot Schools are being sampled earlier. All Pilot Schools should undergo surveying and sampling contemporaneously (for the two Pilot Schools scheduled for window replacement in 2011, BMP Protocols should be implemented aggressively, with post-implementation sampling to evaluate their effectiveness). Lastly, SCA should present one schedule (not two) in the document.

Appendix B – Section 02082 PCB-Containing Caulk Removal Work: EPA has extensive comments on Appendix B, and these comments are provided as an enclosure to this letter.

Figures: Since it appears that the figures only represent portions of the Pilot Schools, please provide complete plans for each school as well as a description of the schools’ architectural or mechanical systems.

Specific Comments

Executive Summary: The Executive Summary should include a description of the potential sources of PCBs in the schools, and an explanation of the assumptions that will be made regarding these sources, if PCBs are found in the pre-remedial baseline samples.

Section 1.3 – Description of Pilot School Buildings: Please revise the text of the third bullet on Page 4 to clearly explain the type of construction that is being referred to.

Section 1.4.1 – PS 178X/176X: The text in the second bullet (spanning Pages 5 and 6) should clearly explain that the elevated detection level of 560 nanograms per cubic meter is higher than EPA’s current public health levels (see Table 2.1 on Page 13).

Section 1.4.2 – PS 199M: The text on Page 7 should explain how water generated during the power washing of pavement surfaces was addressed during the implementation of outside cleanup up activities.

Additionally, the discussion regarding soil remediation should clearly indicate that remediation was performed subsequent to EPA issuing an approval for cleanup and disposal of PCB Remediation Waste under 40 CFR §761.61(a) and 40 CFR §761.61(c).

Section 1.6 – Overview of Remedial Investigation Objectives and Remedial Remedies:

One of the remedial remedies presented on Page 11 is the removal of all PCB caulk and replacement with new caulk. Since the surrounding material may be contaminated from the high concentration PCB caulk that was there previously, provisions must be made for long-term monitoring of the new caulk to see if it ultimately becomes contaminated.

In this section, and elsewhere in the RIWP, an “operation and maintenance” remedy is identified. However, EPA and SCA have never discussed inclusion of such a potential remedy into the RIWP, and we are unclear what it entails. Is this a remedy based on implementation of the Best Management Practices Protocol? Is it a “no further action” alternative? Please provide additional detail on this proposed remedy and how it will be evaluated within the scope of the Pilot Study.

Section 2.1 – Work Plan Approach: This section does not include the collection of caulk samples, and as explained in the General Comments, we cannot understand how a successful Pilot Study can be performed without this activity.

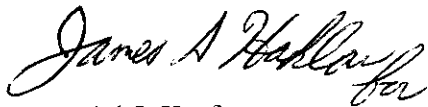
Section 4.5 – Field Equipment Decontamination Procedures:

Field equipment should be decontaminated in accordance with 40 CFR 761.79. The decontamination procedure provided in this section does not appear to comply with the regulations.

Additionally, Please explain in this section how the decontamination fluids (e.g. spent solvent and wash water) will be disposed of.

Based on the Agency’s comments, at this time we cannot approve the RIWP. However, we look forward to discussing our concerns with you, and expeditiously resolving these issues. If you have any questions, please feel free to contact James Haklar, Ph.D., P.E., of my staff at (732) 906-6817.

Sincerely yours,



Daniel J. Kraft
Acting Chief
Pesticides and Toxic Substances Branch

Enclosure

**Comments Pertaining to Appendix B of the RIWP
Section 02082 PCB-Containing Caulk Removal Work**

General Comments

EPA's Renovation/Abatement Guidance: Please note that the Agency has finalized its renovation and abatement guidance, and it can be found at the following website address:

<http://www.epa.gov/pcbsincaulk/guide/index.htm>

We recommend that the City ensure that Section 02082 conforms to the Agency guidance.

Compliance with Construction and Fire Codes: It is our understanding that the New York City Department of Buildings, the Department of Environmental Protection, and the Fire Department may have recently made new recommendations with regard to construction and fire codes.

We recommend that the School Construction Authority (SCA) ensure that Specification 02082 is in compliance with existing New York City laws, rules, regulations, and guidance including any new construction and fire codes and any New York City Agency's recommendations for all materials used in the construction of temporary enclosures, including partitions, decontamination areas, barriers, and plastic enclosures, and means of egress.

Disposal of PCB Caulk and Building Debris: We disagree with SCA's approach toward managing the disposal of removed building components, such as (but not limited to) window frames, that have been in contact with PCB caulk. While the caulk should be disposed of as a PCB Bulk Product Waste in accordance with 40 CFR 761.62, the removed building components must be considered a PCB Remediation Waste, and addressed in one of the following ways:

- Decontaminated in accordance with 40 CFR 761.79;
- Assumed to contain PCBs above 50 parts per million (ppm) and disposed of at a TSCA-permitted facility;

- Sampled to verify the residual concentration of PCBs on the building components, with the sampling based on the actual concentration of PCBs found (not the ratio of the weight of the PCBs to the total weight of the building components). If the SCA then applies to EPA for (and receives) a 40 CFR 761.61(a) PCB disposal approval, the material with PCBs less than 50 ppm can be disposed of at a non-municipal, non-hazardous facility, while the material at or above 50 ppm can be disposed of at a facility permitted under the Resource Conservation and Recovery Act.

EPA has previously raised this issue with the SCA, and we acknowledge that the SCA has in the past expressed disagreement with the above approach. However, in accordance with the regulatory definition of a PCB Remediation Waste, the removed building components must be managed as a PCB Remediation Waste (and not PCB Bulk Product Waste) since the source of the PCBs on this material is not authorized for use (i.e., the PCB caulk).

Consequently, please also note that EPA considers the wash water contaminated with PCBs from the caulk to be a PCB Remediation Waste, and so the document should not refer to this waste stream as a PCB Bulk Product Waste. Furthermore, any other PCB-contaminated residuals that are generated during the project should be considered PCB Remediation Waste.

Cleaning/Decontamination: Prior to removal from a jobsite, tools and other movable equipment that either were in contact, or are suspected to have been in contact, with materials such as PCB caulk or paint must be decontaminated in accordance with 40 CFR 761.79.

Other Specifications: The document cites other specifications including S02081 (for asbestos) and S01900 (for paint). These documents should likewise be included as appendices to the RIWP.

Specific Comments

Title and Section 1.01 A, Page 1: Please clarify if “PCB-Containing Caulk Removal Work” is considered a “Section” or “Specification”. The title is referenced as “Section 02082” but it is referenced as “Specification 02082” in the list of appendices of the RI Work Plan. If it is considered a “Specification”, it is recommended that the reference to “section” in the first paragraph of the Specification be re-worded to “specification” for consistency and this correction be made throughout the document where “section” may have been used inadvertently with regard to “PCB-Containing Caulk Removal Work”. This also applies to the references throughout the document to the Paint (S01900) and

Asbestos (S02081) Specifications. In some areas of the document it is referenced as a “section” while others it is deemed a “specification”.

Article 1.01 A, Page 1: The last sentence of this Article states the following, “If material is tested and found to contain less than 50 ppm, it is to be removed as part of the work of Section S01900 and other applicable sections.” Section S01900 pertains to paint. However, Article 1.01 B.1, states the following, “Any caulking locations not listed or addressed in Part 4 of this Specification Section must be assumed to be ACM (asbestos containing materials) and PCB-containing materials.” SCA may wish to reword Article 1.01 A to be consistent with Article 1.01 B.1 if SCA is working under the assumption, that at a minimum, the caulk is to be assumed to be ACM and PCB-containing materials if not listed or addressed in Part 4.

Part 4, Table (Summary of Inspection Results for PCB Caulking in School), Page 45: The table on page 45 of Part 4 appears to address the summary of sampling and inspection results for PCB-containing material. However, it does not appear to address the potential for the caulking to be ACM. Please clarify if the table should be revised to include sampling results for asbestos, or if there is another table with regard to sampling the caulking for asbestos referenced in another document (e.g., Specification S02081), or if SCA is directing the contractors/consultants to always work under the assumption that the caulking is ACM without the need for asbestos sampling. Since we are unaware of the details provided in Specification S01900 (paint) this comment may potentially apply to the assumptions and sampling results being made to caulking and building components/debris that are painted and are being removed during the PCB-containing caulk removal work.

Article 1.01 B, Page 1: Please confirm if Article 1.06 is the appropriate Article for describing how to manage all waste.

Article 1.02 B, Page 3: SCA may wish to consider using a third-party environmental laboratory chosen by SCA, or accepted by SCA if the contractor chooses the laboratory, to test the wastewater generated and collected during PCB-containing material activities as opposed to requiring the contractor to test the wastewater.

Article 1.05 A.2, Page 6: SCA may also wish to consider the OSHA PEL for other known or assumed contaminants in a given work area, in addition to PCBs, with regard to exposure and proper PPE since there may be instances that the air exposure to one contaminant (e.g., PCBs) in a work area may be below its applicable PEL while another known or assumed contaminant in the work area may be at a level exceeding its given PEL (e.g., lead, asbestos, etc.). SCA used language earlier in the document on the fact that other hazards may be present besides PCBs during a PCB-containing or assumed PCB-containing caulk removal and SCA may wish to consider such similar language (e.g., “This section shall be used in conjunction with other Specifications that also apply, notably where caulk also contains asbestos (Specification S02081) or paint (Specification S01900) and for other existing premises work provisions (Specification S01900” referenced in Article 1.01 C, page 2).

Article 2.02 F, Page 13: The reference is made to a water treatment system capable of treating and retaining PCBs. In earlier portions of Specification 02082 reference is made to the fact that other contaminants may also have to be considered if it is present, or assumed to be present, during the PCB work activities (e.g., lead and asbestos). It is recommended that language similar to that used earlier in the document with regard to other potential contaminants, if present or assumed to be present, be considered with regard to the capabilities of the water treatment system to remove/treat all of these contaminants and/or when sampling the treated water and residual waste from the treatment process.

Article 3.01, Page 15: SCA should also consider site security measures to prevent access of unauthorized persons to the work areas until after the final cleanup. Examples of security measures may include, but may not be limited to:

- Lock fence gates or doors to the work areas during off hours.
- Establish a system to identify authorized persons and any limitations to their approved activities.
- Provide a means for approving all visitors to the work area; ensure trained site personnel accompany visitors at all times and provide them with appropriate PPE.

Article 3.01 A.1, Page 15: Article 3.01 A.1 currently states that the caulking material is presumed to contain more than 50 ppm of PCBs. However, one of the initial articles of this document, Article 1.01 B.1, states the following, “Any caulking locations not listed or addressed in Part 4 of this Specification Article must be assumed to be ACM and PCB-containing materials.” Please ensure that the assumptions for the caulking, and the precautions to be taken, are consistent throughout the Specification.

Articles 3.01 C.1.a and C.1.b, Pages 16 and 17: This article should also discuss isolating and plasticizing all openings within the room and the exterior of the room/building within the distances specified in the articles since there may be other “openings” besides HVAC equipment and room air conditioners where residue dust/debris may spread to during the PCB-containing caulk removal work. This comment also applies to Article 1.06 C.8, page 11.

Article 3.01 C.1.b, Page 17: The last two sentences of this article state the following, “For exterior caulk removal, all windows shall be closed and all room air conditioners shall be closed and sealed with plastic. This shall also be done for the two rooms on each side of the work and on all floors of the building.” Based on the wording of the last sentence of this article it is not fully clear on if all windows will be closed and room air conditioners will be closed and sealed in plastic on all floors of the building prior to any exterior caulk removal; or, if it applies only to all floors directly beneath a given floor where work is on-going on the exterior of any given room and the two rooms adjacent to each side of that work. Please clarify.

Article 3.01 C.2.b, Page 17: It may be appropriate to re-word this article. The first sentence does not seem to read properly. It discusses barriers four feet out from a given work area and a multi-layer flap “across each room”. As it reads it is not clear what/where the flap reference applies to or its location. In addition, it is not clear how adding two additional layers of plastic at the access flap forms a vestibule between the work area and

the clean area for workers. Specification 02082 does not go into any further detail on the purpose of the vestibule. Please clarify its role (e.g., personnel and/or waste decon room, etc.).

Article 3.01 C.2.c and C.2d, Page 17: Please clarify the rationale for all objects outside of the work area and outside of the isolation barrier requiring poly sheeting covering while the contractor has an option for either sealing only openings of objects with duct tape or poly wrapping those objects left within the work area within the isolation barrier.

Article 3.01 C.2.e, Page 18: Please clarify why only floor surfaces near windows in a work area will have floor coverings to protect against dust as opposed to all openings where caulk removal is occurring such as doors and windows, etc.

Additionally, Please specify the distance (out from a given wall in front of a window, door, etc. that caulk removal is occurring) that the floor coverings should extend outward to capture any dust/debris from the caulk removal work activities.

Article 3.01 C.2.e, Page 18 and Article 3.01 D.2.e, Page 21: Please justify the use of construction paper as a floor covering, since the cleaning process later in the Specification discusses wet wiping/mopping and wet manual tool removal methods.

Article 3.01 C.2.h, Page 18: We recommend that signage stating “No Eating, Drinking, or Smoking” be provided, in addition to the signage already recommended in this article.

Article 3.01 C.2.i, Page 18 and Article 3.01 C.3: Article 3.01 C.2.i discusses dust control mats to minimize dust from workers feet, but does not provide any details on the measures proposed to minimize the spread of dust from the workers clothes/bodies outside of the work areas in the interior spaces. This comment also applies for Article 3.01 C.3 for the exterior work areas. In addition, Article 3.01 C.3 does not discuss dust control measures to minimize dust from workers feet, such as the “sticky” foot mats referenced in Article 3.01 C.2.i, or any recommendations to minimize the spread of dust and debris (such as, but may not be limited to, every time personnel leave the plastic sheeting of a work area, the workers remove their disposable shoe covers, if applicable, and wipe or vacuum their shoes, especially, the soles, before they step off the plastic sheeting).

Article 3.01 C.3.b, Page 19: Again, we recommend that signage be provided stating “No Eating, Drinking, or Smoking” in addition to the signage already recommended in this article.

Article 3.01 C.3.a, Page 19: The last sentence of this article appears to be an incomplete sentence, “Joints must be taped or otherwise secured to maintain coverage of the required areas and prevent plastic from the effects of wind or rain.” Please clarify the intent of this sentence. It is recommended that the article also clarify how the plastic will be sealed to the building and/or scaffold structure (e.g., secure the plastic to the exterior wall with a wood strip and staples, or tape.). Please clarify how any water used during the PCB-containing caulk removal work in the interior or exterior work areas, or rain into the exterior work areas, if not performed under containment, will be contained to avoid

the potential spread of PCB-containing caulk and ACM, if assumed or known to be present, dust and debris outside of the work area due to runoff.

Article 3.01 C.3.a, Page 19 and Article 3.01 C.1.b, Page 16: We suggest that the following technique be considered, as appropriate, for locations where an exterior containment area is not planned to be constructed: move or cover any play areas within 20 feet of the work area or a sufficient distance to contain the dust, whichever is greater.

Article 3.01 C.3.a, Page 19: This article states the following, “Plastic shall be extended from the building to a distance of 15 feet from the building and at least 15 feet laterally beyond on each side of the work.” It is recommended that this sentence be re-written to provide coverage beyond 15 feet if there is a potential for dispersion of dust beyond the 15 foot boundary, such as “...or a sufficient distance to contain the dust, whichever is greater.”

Article 3.01 C.3.c, Page 19: Please clarify what SCA is defining as “high wind conditions” for this article. Is it the same definition specified later in the Specification in Article 3.04 A.1.a, Page 23? It may be appropriate to define it in Article 3.01 C.3.c as well. We also recommend that additional language be included with regard to minimizing the movement of dust and debris due to winds such as special precautions to keep the work area contained when the wind is strong enough to move dust and debris (e.g., a wind screen can be constructed of plastic at the edge of the ground-cover plastic to keep dust and debris from migrating) if SCA believes such a situation may exist prior to the winds reaching the 15 miles per hour referenced in Article 3.04 A.1.a or if the National Weather Service forecast for the given location is unclear or unknown.

Article 3.01 D.1, Page 19: The article as it currently reads is difficult to follow: “Daily cleaning shall be performed in accordance with this Specification Section. However, during removal of caulking or demolition of material that may have caulking attached, the following procedure is to be followed when the construction task is completed and at the end of each work day to prevent contamination during the demolition process.” Since it is difficult to understand the intent of this article, please revise the text in order to clarify its purpose.

Article 3.01 D.1.a, Page 20: This article discusses the daily cleaning process for indoor work areas. However, there is no discussion on the daily cleaning process for the exterior work areas. Please clarify this in the Specification.

Article 3.01 C.3.c, Page 19 and Article 3.01 D.1.b, Page 20: It is recommended that SCA specify how dust, debris or waste associated with or generated by the removal and demolition of building material with caulk shall be containerized, bagged, and or wrapped prior to being removed from interior and exterior work areas.

Article 3.01 D.1.c, Page 20: This Specification should also clarify the precautions SCA will implement to ensure that all other items, besides tools and equipment, including, but may not be limited to, the exteriors of containers\bags of waste, carts, etc. are decontaminated prior to leaving a work area.

Article 3.01 D.1.d, Page 20 and Article 3.01 D.2.f, Page 21: It is recommended that SCA clarify further in these two articles that the cleanup that will be beginning at the far end of the work area will consist of any exposed surfaces, including the ceiling and walls, while it moves towards the entrance to the work area, vacuuming the floors last.

Article 3.01 D, Page 20: It is recommended that this article discuss the measures proposed to minimize the spread of dust from the workers clothes/bodies/feet prior to leaving the work areas after the completion of the daily cleaning process and final cleaning process once the construction task is completed.

Article 3.01 D.2.a, Page 20: We recommend that this article reference where in the Specification the daily cleaning tasks are located.

Article 3.01 D.2.b, Page 20: It is recommended that this article also make reference to work areas, in addition to barriers, with regard to surfaces to be cleaned of dust and dirt.

Article 3.01 D.2.d, Page 21: SCA may wish to consider specifying the actual procedures for the cleaning of the areas outside of the immediate work area(s) where dust or debris have migrated similar to the details provided in article 3.01 D.1.a and/or article 3.01 D.2.f.

Article 3.01 D.2, Pages 20-22: This article provides details on the final cleaning procedures inside of a given work area after the completion of construction. However, this article does not provide any details on the final procedures to be followed when the construction task(s) is completed for all objects outside of a given work area that were covered with fire-retardant polyethylene sheeting pursuant to Article 3.01 C.2.c earlier in the Specification at the start of the work/task. Please clarify this in the Specification.

Article 3.01 D.2.h, Page 22: It is recommended that the second sentence be re-worded to clarify that if visible dust and debris is observed during the visual inspection, the area will be re-cleaned as specified in this article until the space is clean as documented through the collection of wipe samples.

Article 3.02 B, Page 22: We recommend adding language on the need for re-cleaning a given area if the final inspection by the School's Representative deems it necessary.

Article 3.04 A.1, Page 23: This article states the following, "Removal of caulk and building components that are also ACM shall follow the applicable provisions of both Specification S02081 and this specification." Earlier articles of the Specification (e.g., Article 1.01C, page 2) discuss that this specification will be used in conjunction with other Specifications that also apply, notably where caulk also contains asbestos (Specification S02081) or paint (Specification S01900). It is recommended that reference

to the paint specification, as applicable, also be included in this article to be consistent with the assumptions that SCA has made with regard to the caulk and/or building components in other portions of the Specification.

Article 3.04 A.1.a, Page 23: This article states that when the National Weather Service forecasts winds in excess of 15 miles per hour that the ground plastic will be rolled up and secured to prevent the spread of debris and dust to the building and the environment. We recommend that the plastic be folded with the dirty side in (e.g., perhaps by continuously halving the sheeting as it is folded with the dirty side in as the contractor moves towards the building/exterior of the work area to secure it from the high winds), as opposed to rolling up the ground plastic, to minimize the spread of dust and debris to the clean side of the plastic that will be placed back onto the ground surface once the winds have settled down to an acceptable level.

Article 3.04 A.1.d, Pages 23-24: This article discusses the removal of the waste caulk from the work area on a regular basis and at the end of each work day but should also discuss the frequency for the removal of the other wastes and debris referenced in the article.

Article 3.04 B.2.a, Page 25: This article states the following: "Remove all caulk only within in the work area set up with dust controls or in a separate staging area that includes barriers to contain dust and protect from the effects of wind and weather and is kept under negative air pressure by use of an air exhaust system equipped with HEPA filtration." Please clarify if a negative air containment system is being proposed for staging areas proposed both interior and exterior to the building or only for exterior staging areas. Please clarify the rationale for using a negative air containment system for staging areas but not for other exterior work areas that may be impacted by the effects of wind and weather.

Article 3.04 B.2.a, Page 25: If staging areas are proposed, the Specification should provide further details on the procedures to be implemented to avoid dust and debris on the workers bodies and feet being transported from the work area along the pathway to the staging area and details on demarcating the pathway to the staging area to avoid workers involved in the PCB-containing removal work crossing with workers/personnel not involved with this work activity.

Article 3.04 B.2.a, Page 25: The Specification should provide details on the frequency of, and the procedures to be followed for, the cleaning of the staging area during its use and prior to its dismantling and how it will be deemed clean prior to it being dismantled, similar to what the specification discusses for interior and exterior work areas.

Article 3.04 B.2.a, Page 25: This article should clarify that the poly wrapped material must be free of visible dust and debris prior to being transported out of the work area to the staging area by the use of appropriate means such as HEPA vacuums and wet methods and/or double wrapping of the material.

Article 3.04 B.2.c, Page 25: This article discusses the removal of the waste caulk from the work area on a regular basis and at the end of each work day but does not discuss the frequency for the removal of the other wastes and debris generated during the removal of the waste caulk within the work area. This comment also applies to the frequency of the removal of waste from within the staging area referenced in Article 3.04 B.2.a. Please clarify.

Article 3.04 B.5, Page 26: This article should clarify that the poly wrapped material must be free of visible dust and debris prior to being transported out of the work area.

Article 3.04 B.6, Page 26: Article 3.04 B.5 makes reference to other items besides sashes and/or frames, doors, windows, or other building components to be removed and poly wrapped. It is recommended that all items listed in Article 3.04 B.5 be listed in Article 3.04 B.6 for consistency.

Article 3.04 C.1, Page 26: Please clarify if all waste or debris will be placed in covered or sealed containers, or containers and/or dumpsters, since reference is made to both options in one of the previous articles (i.e., Article 3.04 B.6). If both are potential options it may be beneficial to reference both in this article as well for consistency.

Article 3.04 C.2, Page 26 and Article 3.04 D.5.b: This article discusses collecting all wash water in “appropriate containers”. Later in the specification, reference to waste/wash water collection discusses it being appropriately “containerized”. Please re-word such references to discuss appropriately containerizing the wash water since holding tanks may be another option, for example, in addition to containers, for storing the water depending on the nature of the work and the volume of water accumulated during the work. In addition, if SCA believes there may be a potential option to hold wash/waste water in another option besides containers, please update Article 2.01 (Materials) and/or Article 2.02 (Equipment).

Article 3.04 D.2, Page 27: Reference is made to “HEPA Dust” in the title of this article. In other portions of the Specification, reference is made to “HEPA dust, debris, and filter media” which may be more appropriate to reference in the title of this article to be consistent with other portions of the Specification and to encompass more fully the waste streams from the HEPA vacuums.

Article 3.04 D.3.a.2, Page 28: We recommend that the word “if” be switched to “unless”.

Article 3.04 D.3.b, Page 28: This article discusses the potential to dispose of some of the building components and debris as construction and demolition (C&D) waste if it never contacted PCB-caulking or glazing or is not deemed a hazardous waste due to TCLP testing of the paint. It does not appear that the Specification defines at what stage of the project such a determination will be made. The Specification should clarify how and when such a determination will be made since making such a determination may be difficult once the work activities have commenced within a work area and various waste streams become co-mingled.

Article 3.04 D.4.b, Page 28: The end of this article states the following: “All sampling shall be performed outside the building in the waste dumpster.” Please clarify how this is to be accomplished without the potential release and/or spread of PCB-containing caulk, and/or ACM, and/or paint potentially characterized as hazardous waste, if present or assumed to be present. Later in the Specification, such as Article 3.06 A.3, Page 36, and Article 3.04 D.5.c, Page 29, reference is made to waste storage areas on-site and the details for their location, etc. Please clarify throughout the Specification where waste streams will be stored either inside or outside of the building, and/or work areas, for storage and sampling prior to final disposal off-site.

Article 3.04 D.5.c, Page 29: It is recommended that the first sentence of this article be rewritten to state that one or more composite samples representative of all containerized wash waters, as opposed to “a composite sample”, to be consistent with Article 3.04 D.5.b.

Article 3.04 D.5.c, Page 29: The last two sentences of this article are unclear and need revision. One of the sentences seems to imply that the sampling of the wash water may occur in a waste storage area. This article should state where in the Specification the contractor can find the details on the requirements for the waste water storage area.

Article 3.04 D.5.d, Page 29 and Article 3.5 A, Page 31: SCA should ensure that any waste water generated during the PCB-containing caulk removal work activities that is proposed to be discharged into the sewers meets all applicable state and local standards and/or requirements, in addition to the federal PCB decontamination standards at 40 CFR 761.79 as well as any other federal standards pertaining to such a discharge.