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UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION I
J.F. KENNEDY FEDERAL BUILDING, BOSTON, MASSACHUSETTS 02203-2211

January 22, 1991

Mr. Russell Fish
U.S. Department of the Navy
Northern Division
Naval Facilities Engineering Command
Philadelphia, PA 19112-5094

Dear Mr. Fish:

Per your December 27, 1990 correspondence regarding the proposed PCB removal activities at Sites 12 and 14 at the Naval Construction Battalion Center (NCBC), please find attached EPA's comments on the International Companies' Health and Safety Plan and TRC's amended Quality Assurance Project Plan and Health and Safety Plan. The comments are intended to identify any discrepancies between the Navy's Specification No. 04-89-1623, "Remedial Services for PCBs - Naval Construction Battalion Center, Davisville, Rhode Island" and the aforementioned contractor-generated materials. Several issues are raised with respect to different elements of the proposed activities and are offered as recommendations only.

So as not to further delay the commencement of the proposed removal actions, EPA requests that you verbally acknowledge the issues raised in the proceeding paragraphs and follow up with a written response at a later date. Should you have any questions or concerns with regard to the enclosed materials, please do not hesitate to call.

Sincerely,

Carol A. Keating

Carol A. Keating
Remedial Project Manager

Attachment

cc: Linda Wofford, RIDEM

ATTACHMENT

Preconstruction Submittals - The International Companies/International Environmental Services, Inc. (IES)

Site Health and Safety Plan - Main Text

Section 3.2.1 - Site Preparation

This section states, "The hazards associated with this phase are primarily standard safety considerations for any construction activity." It should be noted that a dermal contact hazard also exists at the site. PCBs are virtually immobile and, therefore, high concentrations of PCBs identified as a result of previous sampling activities may still exist.

To assist workers in identifying these potentially contaminated areas and pursuant to OSHA recommendations for Site Safety Plans, site maps (which include descriptions of exclusion and contamination reduction zones), a detailed site description, and results of previous sampling activities for both areas of contamination should be incorporated into the document.

Section 3.2.2 - Concrete Slab/Bituminous Slab Demolition

The author states, "The hazards associated with this phase are primarily safe use of demolition equipment and exposure of dust, PCB-contaminated dust and noise." As stated above, dermal contact with PCB-contaminated materials should be added to the list of potential hazards.

Section 3.2.3 - Removal of Debris
Section 3.2.4 - Equipment Decontamination
Section 3.2.5 - Monitoring Activities

The plan states, "The site specific orientation meeting will address proper handling of materials and use of protection equipment." A written narrative of the proper handling techniques to be addressed during these meetings should also be incorporated into the plan. The Health and Safety Plan will be the document kept on site as the source of reference for this type of information. It should, therefore, include discussions of all relevant site-specific health and safety procedures.

Section 5.4 - Level C Protection Equipment

List of equipment includes a "face shield or safety goggles if not full face respirator." Due to suspected high levels of PCB-contaminated dust and particulate matter resulting from demolition activities, it is recommended that only full-face, air-purifying respirators, canister-equipped (MSHA/NIOSH approved) should be utilized. Half masks and safety goggles will not sufficiently reduce worker exposure to airborne PCB-contamination.

Section 5.5 - Level D Protection Equipment

Since Level D Protection is primarily worn in areas where there is no possibility of contact with contamination, it should not be donned in areas where there is a potential for PCB-contaminated dust inhalation. Therefore, it is recommended that at a minimum, Level C protection should be worn in the exclusion zone during all demolition and debris removal activities.

Section 6.4 - Exposure/Injury Medical Support

The author states, "If an accident occurs in the hot zone, or if unusual signs and symptoms are encountered, a medical exam is indicated." Pursuant to "Remedial Services for PCBs, Naval Construction Center Davisville, Rhode Island - Specification No. 04-89-1623" (hereinafter "project specifications"), all such events shall be immediately reported to the Contracting Officer, Resident Officer in Charge of Construction (ROICC). To ensure that the names, numbers, and locations of all emergency service organizations are readily available to workers in the event of such an occurrence, a listing of such should be posted at an visually accessible area near the removal site. In addition, provisions for the decontamination of injured workers should be incorporated into the site control and decontamination plans.

Section 7.1 - Monitoring Instruments

This section states that the Dupont P4000 monitoring pump will be used to monitor for dust, noise and PCB exposure. Since noise cannot be monitored using a personal air sampling pump, reference to noise monitoring should be omitted from this subsection.

Section 7.2 - Personal Sampling

Air monitoring should also be conducted in the contamination reduction zone. Increased concentrations of contaminants in the air may indicate a breakdown in control over the

contamination reduction corridor, ineffective decontamination procedures or failure to restrict site access.

Section 8.3 - Work Zone Definition

The author states that boundaries and limits of the exclusion zone will be in accordance with contract specifications and drawings, and that the boundary will consist of "a double layer of six mil. polyethylene sheeting consistent with project specifications." In its April 30, 1990 letter EPA had expressed concern with respect to the construction and placement of the plastic containment area. Mr. Tim Bramhall of NORTHDIV informed EPA during a June 6, 1990 conference call, that specifics of the design and construction of the containment and exclusion zones would be outlined in the contractor's preconstruction submittals.

Upon review of the contractor's submission, it has been determined that a more thorough explanation and description of the exclusion zone in necessary. More specifically, what steps will be taken to assure negative pressure will be maintained in the containment area? What method will be used to record pressure differential and to assure that the differential is a negative pressure of at least 0.2 inches of water as outlined in the project specifications? Who will be responsible for and what method(s) will be employed for checking for leaks in the containment area? What criteria are to be used for negative air machine maintenance (i.e., replacement of HEPA filters)? Has a water/surfactant mixture for "misting" contaminated concrete and soils been considered for reducing the levels of airborne contaminated dust?

As mentioned previously, all work areas, i.e., exclusion zone, contamination reduction zone, and support zone, must be designated on a site map and posted. The size of the zones, zone boundaries, and access control points into each zone must be marked and made known to all site workers. Procedures must also be established to control the admittance of unauthorized personnel into work zones where personnel protection is required.

This section also states that the contamination reduction/decontamination area will be identified by "yellow caution tape supported by posts." This proposal is unacceptable. This area should be a completely sealed structure with opposing flap doors. In addition, as stated in the project specifications, protective clothing should be removed and decontaminated and respirators should remain in place until workers exit the enclosed contamination reduction zone.

Section 8.4 - Nearest Medical Assistance

As discussed in Section 6.4 above, the name, location, travel time, directions, and telephone number of the nearest medical or emergency care facility should be posted in an area close to the removal site and be readily accessible to workers in the event of an emergency.

Section 9.1 - Levels of Decontamination Protection Required for Personnel

Although this section clearly states that all personnel entering the work zone shall be, at a minimum, in Level C protection, it is recommended that the list of Level C equipment as outlined Section 5.4 specify the use of full-face respirators only. Skin and eyes should be completely protected from potential PCB contamination by wearing tyvek hoods and taping cuffs to create appropriate seals.

In addition, the plan states that outer protective clothing will be removed after workers enter the contamination reduction zone following removal of gross debris. Workers will then be sprayed with wash water that contains a soap that will work with oil.

Pursuant to Section 2.2.3 of the project specification, "outer protective clothing shall be vacuumed using a special vacuum equipped with HEPA filters and then wet wiped." Workers should not be sprayed with wash water. Water should never be "sprayed" when airborne dusts are of concern. Only fine misting or wet wiping should be employed.

Section 9.2 - Equipment Decontamination

As specified in Section 2.2.3 of the project specification, equipment should be decontaminated by "vacuuming, and dry-wiping followed by wet-wiping, but <u>do not wash</u>." Therefore, a high-pressure power wash unit should not be utilized.

In addition, measures should be taken to prevent contamination of sampling and monitoring equipment. Because delicate instruments are very difficult to clean once contaminated, they should be protected while in use.

Certain parts of contaminated respirators, such as the harness assembly and straps are difficult to decontaminate. Rubber components can be soaked in soap and water and scrubbed with a brush. Persons responsible for decontaminating respirators should be thoroughly trained in respirator maintenance. In addition to thorough decontamination, reusable protective clothing and other personal articles must be sanitized before being reused.

Attachment 3 - Corporate Safety Plan

This section outlines the notification procedures for fires, explosions, or any unplanned, sudden or non-sudden release of hazardous materials. It states that the primary emergency coordinator at IES should be notified in the event of such an occurrence. As discussed during the June 6, 1990 conference call, any event of this nature should also be immediately reported to the Contracting Officer, Resident Officer in Charge of Construction (ROICC).

TRC Environmental Consultants, Inc.

Quality Assurance Project Plan - Addendum

3.4 - Project Scope

The amended QAPP outlines the removal activities to be performed pursuant to project specifications. This section states that "the planned remedial action involves the removal and disposal of PCB-contaminated asphalt, concrete, and subgrade materials from floors in warehouse Buildings 316 and 38. Samples will be collected from in and around the removal areas and analyzed for PCBs to verify a complete removal of the PCB-contaminated materials. Upon verification of a complete removal, the floors will then be restored to their original condition... At a minimum, the removal of PCB-containing material will include all pavement down to the subgrade materials. All visibly stained subgrade materials will be removed from each area."

Although it is evident from reviewing IES' preconstruction submittals that they will perform activities relevant to the removal and disposal of the concrete and asphaltic materials, it is unclear which contractor will visually inspect the subgrade materials and perform the removal of any "visibly stained" soils. The IES package speaks only to site preparation, concrete slab/bituminous slab demolition, removal of debris (moving heavy materials), equipment decontamination, and monitoring activities. TRC's amended plans speak specifically to the post removal verification sampling activities.

In addition, pursuant to the project specification and based on discussions with Mr. Bramhall during our June 6, 1990 conference call, a minimum of six inches of soils would be removed from Building 38 prior to any soil sampling. This decision is based on TRC's prior recommendation given that the floor in this building is bituminous concrete, a more porous material, and that much higher concentrations of PCBs

were detected in the location. If contamination should be detected as a result of the verification sampling, an additional six inch layer would be removed. (Subgrade materials in Building 318 would not be removed unless verification sampling detected the presence of PCB contamination.)

In the event that verification sampling does reveal the need for additional subgrade material removal, who will perform the subgrade excavation and replacement activities? Should additional removal activities prove unnecessary, who will restore the floors and surrounding environment to their original condition?

Last paragraph in section, middle of page four, states that "soil sample results will be used to confirm that any subgrade materials contaminated by the spills is cleaned up to 25 mg/kg PCBs by dry weight." This is inconsistent with the project specification. More specifically, Section 2.6 of the Navy's specification states that PCB concentrations shall not exceed 1 ppm in concrete and soil.

Section 6.1 - Selection of Sampling Locations

Figure A-3 identifies the soil sample locations in Building 38. Given the high levels of PCB-contamination identified in samples collected during Confirmation Study activities, soil sample locations (S-2 and S-4) should coincide with those areas of highest contamination (CW-14:2, CW-14:3, CW-14:4 and CW-14:8).

Section 6.2 - Sample Collection, Handling, and Shipping

It is recommended that the "holes to aid in collecting chip samples" be drilled to a minimum of two inches, not 1/8 inch as outlined in the project specifications and amended QAPP. Although PCBs are not very mobile, after further analysis of the time period that has elapsed since the spills occurred (nearly ten years ago) and the pervious nature of the floor material, a "near surface" sample may not be sufficient to adequately verify the absence of any PCB contamination.

Section 6.4 - Field Decontamination Procedures

There is a discrepancy between the QAPP and the project specification decontamination procedures. TRC states that a hexane (pesticide grade) rinse will follow a tap water rinse, whereas the project specification call for the use of an Acetone (pesticide grade) rinse.

Health and Safety Plan - Addendum

General Comments

Because this addendum is to be a site-specific Health and Safety Plan for the proposed removal actions, it should offer a more thorough assessment of the potential hazards associated with such activities. Although TRC will not be involved in the actual removal of contaminated asphalt and concrete, it is possible that PCB contamination may still be present in the surrounding media and underlying soils. Therefore, since the generation of PCB-contaminated dust during drilling is a potential concern, will TRC be monitoring for airborne dust levels during drilling? Given the possibility that PCB-contamination is present, how did TRC arrive at Level D Protection requirements and is there a contingency plan in place for upgrading to Level C based on an established action level?

Section 4.5.1 - Specific Procedures

As discussed above, the decontamination procedures outlined are not consistent with the project specifications. TRC lists Hexane (pesticide grade) rinse and the specifications call for the use of Acetone (pesticide grade) rinse.