READ THIS FIRST

This Project Spec Document may need additional modifications to suit your project. It is recommended that you proofread each section, paying attention to any “Notes” boxes such as this one--you should remove these “Notes” sections as you go. Also, do a search for all bracket characters “ [ ] “ as they are used to show you areas containing options or project specific details (you can use Microsoft Word’s Find feature {Ctrl-F} to jump to an open bracket “ [ “ character quickly). Again, these bracket characters should be removed.

It is important that every paragraph be numbered to allow for easy referencing. If you use the document’s built in styles and formatting your outline should be fine (turn on the formatting toolbar by going to View > Toolbars > Formatting). Most paragraphs will use the style “Numbered Material” and can be promoted (Shift) or demoted (Shift-Tab).

You should not have to manually enter extra spaces, carriage returns or outline characters such as A, B, C, or 1.01, 1.02; the formatting will do this for you. The entire document is 11 pt. Arial. If you paste items in, you may need to reapply the “Numbered Material” format.

NOTE: This section must be reviewed by:

Port Construction Services Regulated Materials Group

Contact: Brian Nichols / (206) 787-7903 / [Nichols.B@portseattle.org](mailto:Nichols.B@portseattle.org)

Port of Seattle Aviation Environmental Programs (for work at Aviation properties)

Contact: Chris Milewski / (206) 787-4633 / [Milewski.C@portseattle.org](mailto:Fox.S@portseattle.org)

Port of Seattle Seaport Environmental and Planning (for work at Seaport properties)

Contact: Mike DeSota / (206) 787-3344 / [DeSota.M@portseattle.org](mailto:DeSota.M@portseattle.org)

1. GENERAL
   1. SUMMARY OF WORK
      1. This section applies to all work related to removal, transportation and disposal of polychlorinated biphenyls (PCBs) and PCB-containing materials.
      2. Refer to the project drawings for location of PCBs and PCB-containing materials to be removed. The work includes the following:
         1. Partial dismantling, draining, disassembling and/or moving PCB-containing transformers or other PCB-containing materials.
         2. Determining which of the transformers scheduled for removal contain PCBs.
         3. Placement of all PCB equipment and PCB-contaminated materials generated as a result of work activities in approved disposal containers with proper labels.
         4. Transportation of containerized PCB equipment and PCB-contaminated materials to treatment, storage, and disposal facilities permitted by the U.S. Environmental Protection Agency under the Toxic Substance Control Act (TSCA)

Choose “Aviation Environmental Programs” or “Seaport Environmental and Planning” in Item 5 below.

* + - 1. Coordination with Port of Seattle [Aviation Environmental Programs or Seaport Environmental and Planning] for waste identification, temporary waste storage, profiling, manifesting, facility acceptability, and shipments
    1. The Contractor shall pay all necessary fees and obtain all necessary permits related to the removal, handling, transportation and recycling of PCBs and PCB-containing materials.
  1. GOVERNING CODES, STANDARDS, AND REFERENCES
     1. The applicable sections, latest editions and addenda of the following government regulations, codes, industry standards and recommended practices, form a part of these Specifications.
        1. United States Environmental Protection Agency (EPA)
           1. 40 CFR, Subchapter R - Toxic Substances Control Act (TSCA), Part 761 – Polychlorinated Biphenyls (PCBs)
        2. United States Department of Transportation (DOT)
           1. 49 CFR, Subtitles A and B - Transportation
        3. Washington State Department of Ecology (DOE)
           1. WAC 173-303 - Dangerous Waste Regulations
        4. Washington State Department of Labor & Industries (L&I)
           1. Washington State Industrial Safety & Health Act (WISHA), WAC 296-800 - Safety and Health Core Rules
        5. All other applicable Federal, State, county and city standards codes
  2. SUBMITTALS
     1. The Contractor shall provide complete submittals in accordance with Section 01 33 00.
     2. Preconstruction Submittals: Provide a site-specific PCB Work Plan which demonstrates the methods by which removal, handling and disposal of PCBs and PCB-containing materials will be performed. At a minimum the Work Plan shall include:
        1. Specific work practices and procedures for removal, handling, storage and disposal of PCBs and PCB-containing materials.

Delete Items 2 through 4 below for a standard demolition project that includes removal of PCBs or PCB-containing materials or equipment. Include Items 2 through 4 below if this is a complex PCB abatement project.

* + - 1. A complete list of all materials and equipment proposed for use in the work. The list shall include such items as protective clothing, respiratory protection, containers, sorbents and solvents.
      2. Qualifications, certifications, training certificates, experience and role of each individual performing or managing PCB removal work.
      3. Waste management and recycling procedures, including:
         1. Location of the designated PCB waste storage area
         2. Container selection and labeling
         3. Qualifications and certificates of the waste transporter
         4. Qualifications and certifications of the recycling facility
    1. Construction Phase Submittals
       1. Daily Work Records: Submit the following information to the Engineer daily. This information shall be submitted prior to the start of work on the next scheduled work shift.
          1. Contractor’s daily log, including scope of work completed, engineering controls used, PCBs and PCB-containing materials, hours worked, and equipment and materials used.
    2. Post-Construction Closeout Submittals
       1. Project Overview: Provide a basic project summary identifying the scope and summarizing the work performed by the Contractor.

Delete Items 2 and 3 below for a standard demolition project that includes removal of PCBs or PCB-containing materials or equipment. Include Items 2 and 3 below if this is a complex PCB abatement project.

* + - 1. Certification: Provide written certification from the Contractor’s Project Manager or Supervisor that the Contractor has fully inspected the work area and completed work in strict accordance with the Specifications.
      2. Project Record Documents: Provide project records including documentation of all contract changes, and copies of work site entry log books, safety logs, sign-in sheets, and supervisor daily field reports. Provide copies of project meetings for pre-construction, construction period, and project closeout meetings.

Choose “Aviation Environmental Programs” or “Seaport Environmental and Planning” in Item 4 below.

* + - 1. Disposal Manifests: Submit copies of all PCB and PCB-containing materials transportation and recycling manifests, including signed receipts from the recycling facility and chain-of-custody forms. Disposal documentation shall be signed by a representative from Port of Seattle [Aviation Environmental Programs or Seaport Environmental and Planning].
      2. Submit copies of inspections or visits by regulatory agencies. Include copies of any citations or notices received by the Contractor from regulatory agencies during the course of the project.
  1. DEFINITIONS
     1. Definitions relevant to PCBs:
        1. Leak or Leaking: Leak or leaking means any instance in which a PCB Article, PCB Container, or PCB Equipment has any PCBs on any portion of its external surface.
        2. PCBs: PCBs as used in this specification section shall mean the same as PCBs, PCB Article, PCB Article Container, PCB Container, PCB Equipment, PCB Item, PCB Transformer, PCB-Contaminated Electrical Equipment, as defined in 40 CFR 761.
        3. Spills: Spill means both intentional and unintentional spills, leaks, and other uncontrolled discharges when the release results in any quantity of PCBs running off or about to run off the external surface of the equipment or other PCB source, as well as the contamination resulting from those releases.
  2. COORDINATION
     1. The Contractor shall coordinate PCB removal with the following Port of Seattle Departments:

Choose “Aviation Maintenance” or “Marine Maintenance” in Item 1 below.

* + - 1. Port of Seattle [Aviation Maintenance or Marine Maintenance], Electrical Department
         1. The Contractor must coordinate with the Electrical Department for disconnection and lockout of electrical service.

Choose “Aviation Environmental Programs” or “Seaport Environmental and Planning” in Item 2 and 2a below.

* + - 1. Port of Seattle [Aviation Environmental Programs or Seaport Environmental and Planning]
         1. The Contractor must coordinate with [Aviation Environmental Programs or Seaport Environmental and Planning] to set up the disposal profile, confirm disposal facility acceptability, report any leaking equipment. Only a representative from Port of Seattle [Aviation Environmental Programs or Seaport Environmental and Planning] can sign the hazardous waste manifest.

1. MATERIALS AND EQUIPMENT
   1. MATERIAL REQUIREMENTS
      1. Containers
         1. All PCBs and PCB-contaminated material shall be packaged in sealed steel drums with appropriate UN Performance Package Ratings.
         2. All drums must be in shipping condition with gaskets intact.
      2. Labels
         1. All containers holding PCBs or PCB-contaminated material shall be labeled with the Large PCB Mark (ML) in accordance with 49 CFR 761.40 marking requirements.
      3. Special Clothing - Work clothes shall consist of PPE as required by OSHA and WISHA/DOSH regulations including, but not limited to the following:
         1. Disposable coveralls
         2. Gloves (Disposable rubber gloves may be worn under these)
         3. Disposable foot covers (polyethylene)
         4. Chemical safety goggles
         5. Half mask cartridge respirator.
      4. Assemble a PCB Spill Kit to include the following items:
         1. Disposable gloves (polyethylene) with a high degree of impermeability to PCBs
         2. Disposable coveralls with permeation resistance to PCB
         3. Chemical safety goggles
         4. Disposable foot covers (polyethylene)
         5. PCB Caution Sign: "PCB Spill--Authorized Personnel Only"
         6. Banner guard or equivalent banner material 30m
         7. Absorbent material
         8. Blue polyethylene waste bags
         9. Cloth backed tape
         10. Absorbent rags
         11. Waste containers of adequate size
2. EXECUTION
   1. PCB CONTROL AREA
      1. Isolate PCB control area by physical boundaries to prevent unauthorized entry of personnel. Food, drink and smoking materials shall not be permitted in areas where PCBs are handled or PCB items are stored.
   2. DRAINING OF TRANSFORMER LIQUID
      1. Perform work in accordance with 40 CFR §761.60 and 49 CFR §173. Drain the transformer, switches, and regulators of free flowing liquid prior to transportation. Place the drained liquids in UN 1A1/Y1.8/300 rated drums. The drums shall not contain more than 190 liters or 50 gallons of oil. If the equipment cannot be drained, then place it in UN approved performance packaging or other approved method.
   3. PCB REMOVAL
      1. Select PCB removal procedures to minimize contamination of work areas with PCBs or other PCB-contaminated debris/waste. Handle PCBs such that no skin contact occurs. PCB removal process should be described in the work plan.
   4. WASTE STREAM DETERMINATION, PACKAGING, AND LABELING
      1. Waste Stream Determination
         1. Before removing PCBs, the Contractor shall determine if the equipment (transformer) contains PCBs. The Contractor shall also determine if the equipment is leaking.
         2. The determinations made by the Contractor will result in the following four possible waste streams that must be segregated:
            1. PCB liquids
            2. PCB-containing materials
            3. Leaking PCB-containing materials
            4. Non-PCB equipment (including “dry” transformers)
         3. Any leaking PCB-containing materials must be reported to the Engineer immediately.
      2. Containerization and Marking
         1. PCB liquids: Place the drained liquids in UN 1A1/Y1.8/300 rated drums. The drums shall not contain more than 190 liters or 50 gallons of oil. PCB liquids shall be marked or labeled with the Large ML PCB Mark. The “taken out of service” date shall be marked on the drum as the date the material is removed and placed in the drum.
         2. PCB-containing materials shall be placed it in UN 1A2/Y1.5/100 rated drums marked or labeled with the Large ML PCB Mark. The “taken out of service” date shall be marked on the drum as the date the material is removed and placed in the drum.

Choose “Aviation Environmental Programs” or “Seaport Environmental and Planning” in Item 3 below.

* + - 1. All leaking PCB materials shall be double bagged, packed in steel drums and marked or labeled with the Large ML PCB Mark. The “taken out of service” date and “Leaking PCB Materials” shall be marked on the drum. Upon notification to Port of Seattle [Aviation Environmental Programs or Seaport Environmental and Planning], leaking PCB materials will be removed from the site immediately by the Port.
      2. Any PCB-contaminated material generated as a result of the work shall be packaged in steel drums marked or labeled with the Large ML PCB Mark. The accumulation start date shall be indicated on the drum as the date the first piece of contaminated material is placed in the drum.
      3. All containers designated for disposal shall be marked with the project number.
  1. SPILLS AND LEAKING PCB MATERIALS AND EQUIPMENT
     1. All PCB leaks or spills shall be addressed immediately. Upon discovery of the leak or spill, the Contractor shall commence with cleanup as follows:
        1. Clear the area and prohibit those not involved with cleanup from entering the area. Ventilate area if possible.
        2. Contact the Engineer immediately.
        3. Don appropriate personal protection equipment for handling organic liquids as specified in the site-specific Safety Plan.
        4. Licensed electrician shall ensure that the equipment is turned off and disconnect electricity at the fuse or breaker box. Follow all lockout/tagout procedures as specified in the site-specific Safety Plan.
        5. Proceed to clean up any leaking or spilled liquids.
        6. If liquids have come in contact with an impervious surface, first absorb any free liquids with absorbent media (such as rags, oil pads, or towels) and place in the designated drum. The area impacted by the spilled PCB liquid must then be decontaminated with an appropriate solvent such as diesel or mineral spirits applied with a rag or towel. Dispose of all cleanup media in the designated drum.
        7. If liquids have come in contact with absorbent material such as carpet or drapes, the material must be cut away in a six inch radius from any contaminated point. Dispose of all cleanup media in the designated drum.

Choose “Aviation Environmental Programs” or “Seaport Environmental and Planning” in Item 8 below.

* + - 1. Arrangements will be made by Port of Seattle [Aviation Environmental Programs or Seaport Environmental and Planning] to remove the drums containing leaking PCB materials from the site as soon as possible for storage in accordance with 49 CFR 761.65(b).
      2. Do not clear the impacted area for general use until notified by the Engineer.
  1. CLEANUP
     1. Maintain surfaces of the PCB control area free of accumulations of PCBs.
     2. Restrict the spread of dust and debris; keep waste from being distributed over work area.
     3. Do not remove the PCB control area and warning signs prior to the approval from the Port of Seattle representative.
     4. Re-clean areas showing residual PCBs in accordance with 40 CFR 761.
  2. TEMPORARY STORAGE, TRANSPORTATION AND DISPOSAL
     1. Temporary Storage
        1. The Contractor may temporarily store non-leaking PCB materials on site for a maximum of 30 days. After 30 days, the PCB materials are subject to the storage requirements of 40 CFR 761.65(b).

Choose “Aviation Environmental Programs” or “Seaport Environmental and Planning” in Item 2 below.

* + - 1. Leaking PCB equipment cannot be temporarily stored on site. If leaking PCB materials are discovered, immediately contact Port of Seattle [Aviation Environmental Programs at (206) 787-5525 or Seaport Environmental and Planning at (206) 295-7912] for removal following cleanup by the Contractor.

Choose “Aviation Environmental Programs” or “Seaport Environmental and Planning” in Item 3 below.

* + - 1. Temporary on-site storage of drums of PCB materials and non-PCB materials must be in accordance with directions given by Port of Seattle [Aviation Environmental Programs or Seaport Environmental and Planning]. The requirements include secondary containment and covering of the waste materials if stored outside.
    1. Transportation
       1. The Contractor is responsible for soliciting and coordinating transportation of PCBs and other waste materials to the permitted recycling facility and any intermediate handling facilities.
       2. Off-site transportation of PCBs and PCB-contaminated material must be conducted by a licensed hazardous waste transporter with a valid EPA Identification Number. The transporter must also have submitted a “Notification of PCB Activity” form to EPA.

Choose “Aviation Environmental Programs” or “Seaport Environmental and Planning” in Item 3 below.

* + - 1. The Contractor must coordinate shipments of PCBs with Port of Seattle [Aviation Environmental Programs or Seaport Environmental and Planning]. Arrangements must be made at least 2 working days in advance to have a representative from Port of Seattle [Aviation Environmental Programs or Seaport Environmental Programs] sign the hazardous waste manifest and inspect the shipment.
    1. Disposal
       1. The Contractor is responsible for soliciting a waste service provider and any cost negotiations regarding disposal.

Choose “Aviation Environmental Programs” or “Seaport Environmental and Planning” in Item 2 below.

* + - 1. The Contractor must notify Port of Seattle [Aviation Environmental Programs or Seaport Environmental and Planning] and indicate which TSCA permitted facility will accept the PCB waste.
      2. The characterization of the equipment or PCB-contaminated material must be conducted prior to transportation off-site.

Choose “Aviation Environmental Programs” or “Seaport Environmental and Planning” in Item 4 below.

* + - 1. Alternative disposal/recycling methods or facilities must be approved by Port of Seattle [Aviation Environmental Programs or Seaport Environmental and Planning]. Land-filling of PCBs is not an acceptable disposal alternative.

Choose “Aviation Environmental Programs” or “Seaport Environmental and Planning” in Item 5 below.

* + - 1. Waste profiles and manifests must be signed by a representative from Port of Seattle [Aviation Environmental Programs or Seaport Environmental Programs].
      2. Invoices for disposal will be paid by the Contractor. However, the Port of Seattle will be listed as the generator of the waste on all profiles and manifests.

1. MEASUREMENT AND PAYMENT
   1. PAYMENT

Choose “Schedule of Unit Prices” or “Lump Sum price bid for the Project” at the end of Paragraph A below.

* + 1. No separate measurement or payment will be made for the Work required by this section. The cost for this portion of the Work will be considered incidental to, and included in the payments made for the applicable bid items in the Schedule of Unit Prices or Lump Sum price bid for the Project.

End of Section

Revision History:

03/23/2015 Conversion to 2004 CSI Numbering System

10/17/18 Changed Aviation Environmental Programs reviewer to Chris Milewski