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. The Contractor shall supply all labor, materials, vehicles, services, insurance and equipment necessary to remove, transport, recycle and dispose universal waste lamps, and non-PCB ballasts in accordance with all applicable federal and state regulations and these specifications.
      2. The Contractor shall supply all labor, materials, vehicles, services, insurance and equipment necessary to remove, containerize and transfer to the Port all Polychlorinated Biphenyls (PCB) containing light ballasts (PCB ballasts) or other PCB containing equipment regulated by 40 CFR 761 or WAC 173-303.
      3. This project involves complete removal of light fixtures in areas of new construction and/or demolition.
      4. Refer to the design drawings for specific information about location of lamps and/or ballast removal. The Work includes the following:
         1. Dismantling of light fixtures and separation of ballasts and lamps.
         2. Determination whether ballasts are PCB ballasts or non-PCB ballasts. Unmarked ballasts shall be considered PCB ballasts.
         3. Package, label and store lamps in accordance with WAC-173-303-573, Standards for Universal Waste Management.
         4. Immediate identification and notification to the Engineer of any leaking PCB ballasts.
         5. Package, mark, label and store all PCB or PCB containing/contaminated waste generated as a result of work activities in in accordance with 40 CFR 761.
         6. Collection and containerization of all non-PCB ballasts.
         7. Coordinating transfer of all PCB ballasts or other PCB containing / PCB contaminated waste to the Port of Seattle within 30 days of generation of waste.
         8. Coordinate proper recycling of all non-PCB ballasts to approved recycling facility.
         9. Coordinate transportation and recycling of lamps in accordance with WAC-173-303-573, Standards for Universal Waste Management.
         10. Provide disposal documentation for all ballasts and lamps removed during the Project.
   2. 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. U.S. EPA - Environmental Protection Agency, Toxic Substances Control Act, Title 40, Code of Federal Regulations, Part 761 (40 CFR 761)
         2. U.S. EPA - Environmental Protection Agency, Standards for Universal Waste Management (40 CFR 273)
         3. U.S. DOT - Department of Transportation, Title 49 Code of Federal Regulations
         4. DOE - Washington State Department of Ecology, Dangerous Waste Regulations, Washington Administrative Code 173-303 (WAC 173-303)
         5. Washington State Department of Labor and Industries (L&I) WISHA - Washington State Industrial Safety & Health Act, Chapter 296-800 Washington Administrative Code (WAC), Safety and Health Core Rules
            1. WAC 296-800-170 Hazard Communication Standard
         6. L&I Chapter 296 -24 WAC, General Safety and Health Standards
            1. L&I Chapter 296-62 WAC, Occupational Health Standards including: WAC 296-842 Respiratory Protection
         7. L&I Chapter 296-155 WAC, Construction Standards
         8. All other applicable Federal, State, county and city standards codes
   3. DEFINITIONS
      1. ASTM: American Society for Testing and Materials
      2. Certified Industrial Hygienist (CIH): An industrial hygienist certified in the Comprehensive Practice of Industrial Hygiene by the American Board of Industrial Hygiene
      3. Contractor: The individual or business with whom the Port has contracted to perform the work as specified herein
      4. DOE: Washington State Department of Ecology
      5. Engineer: The Port of Seattle’s designated contact person.
      6. EPA: United States Environmental Protection Agency
      7. L&I: Washington State Department of Labor & Industries
      8. NIOSH: The National Institute for Occupational Safety and Health
      9. Non-PCB ballast: Electronic (non-magnetic) light ballasts, which are not suspected of containing PCBs.
      10. OSHA: The Occupational Safety and Health Administration
      11. PCB ballast: All magnetic light ballasts, which are considered PCB ballasts, even if labeled with “No PCBs” or equivalent language.
      12. Universal Waste Lamps: Any light bulb, lamp or tube that contain constituents, such as mercury or lead, that could otherwise cause a Dangerous Waste designation when discarded, but can be managed as universal waste. The following lamps must be considered universal waste lamps and managed accordingly:
          1. Fluorescent tubes
          2. High intensity discharge lamps (including mercury vapor, metal halide, and high pressure sodium)
          3. Compact fluorescent lamps
          4. Incandescent bulbs
          5. Any other lights or lamps that are Dangerous Waste
      13. WAC: Washington Administrative Code
      14. WISHA: Washington Industrial Safety and Health Act as enforced by the Washington State Department of Labor & Industries
   4. COORDINATION
      1. Contractor shall coordinate ballast 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. This coordination will be communicated through the Engineer

Choose “Aviation Environmental Programs” or “Seaport Environmental and Planning” in Items 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 coordinate transfer of any PCB ballasts or other PCB containing materials to the Port of Seattle.
  1. QUALITY CONTROL
     1. Use properly trained and experienced workers to perform the removal and containerization of PCB ballasts and universal waste lights and lamps.

1. MATERIALS AND EQUIPMENT
   1. MATERIAL REQUIREMENTS
      1. Containers
         1. All PCB ballasts (or PCB contaminated material) and non-PCB ballasts shall be packaged in sealed steel drums with appropriate UN Performance Package Ratings.
         2. All drums must be in shipping condition and water tight with gaskets intact.
      2. Labels
         1. All containers holding PCB ballasts or PCB contaminated material shall be labeled with the Large PCB Mark (ML) in accordance with 49 CFR 761.40 marking requirements.
         2. All containers holding non-PCB ballasts shall be labeled with the words “Non-PCB Ballasts”.
         3. All containers that contain universal waste lamps shall be labeled with the words “Universal Waste”.
         4. All containers designated for disposal shall be marked with the project number.
   2. EQUIPMENT
      1. Personal Protective Equipment
         1. Provide proper and appropriate personal protective equipment, as necessary for the performance of this Work.
      2. Removal Equipment
         1. A sufficient supply of scaffolds, ladders, lifts and hand tools shall be provided as needed.
         2. Additional support equipment as needed.
2. EXECUTION
   1. WASTE STREAM DETERMINATION, PACKAGING, AND MARKING
      1. Waste Stream Determination – Ballasts
         1. Before removing the ballast from the fixture, the Contractor shall distinguish PCB ballasts from non-PCB ballasts. All magnetic ballasts are considered PCB ballasts, even if labeled with “No PCBs”. Electronic (non-magnetic) ballasts are not suspected of containing PCBs and are considered non-PCB ballasts. Contractor will also determine if the ballast is leaking.
         2. The determinations made by the Contractor will result in the following three possible waste streams that must be segregated:
            1. PCB ballasts
            2. Leaking PCB ballasts and PCB contaminated materials
            3. Non-PCB ballasts (leaking non-PCB ballasts can be packaged with the non-leaking, non-PCB ballasts).
         3. Any leaking PCB ballasts must be reported to the Engineer immediately.
      2. Waste Stream Determination – Universal Waste Lamps
         1. All lamps removed from the site shall be considered universal waste lamps as defined by 40 CFR 273.5 and WAC 173-303-040, provided the lamps are managed accordingly.
         2. Any accidently broken lamps are fully regulated under Federal Resource Conservation and Recovery Act (40 CFR 261) and Washington State Dangerous Waste Regulations (WAC 173-303).
         3. Any onsite disposal of universal waste lamps constitutes improper disposal of fully regulated Dangerous Waste and would be considered a violation of the Federal Resource Conservation and Recovery Act and the Washington State Dangerous Waste Regulations.
      3. Containerization and Marking
         1. All non-leaking PCB ballasts shall be packaged in steel 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 first ballast is removed and placed in the drum.

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

* + - 1. All leaking PCB ballasts 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 Ballasts” shall be marked on the drum. Upon notification to Port of Seattle [Aviation Environmental Programs or Seaport Environmental and Planning], leaking PCB ballasts 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 non-PCB ballasts shall be packaged in steel drums and marked with the words “Non-PCB Ballasts for Recycling”.
      4. Lamps shall be removed and containerized in a manner to prevent breakage. If a lamp breaks, the Contractor shall immediately clean-up debris, place debris in double plastic taped bags, and place the bagged debris in a container specified for broken lamps and labeled and managed in accordance with 40 CFR 261.
  1. CLEANUP PROCEDURES
     1. All leaking PCB ballasts shall be addressed immediately. Upon discovery of leaking PCB ballasts, 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. Ensure that the light fixture is turned off and disconnect electricity at the fuse or breaker box. Follow all lockout/tagout procedures.
        5. Remove the fluorescent lamp if it is still affixed and manage according to this Section.
        6. Remove the ballast and immediately double-bag in plastic.
        7. Place ballast in steel drum, seal the drum, and mark the drum as indicated in 3.01.
        8. If there are any uncontained liquids or other material on a surface other than the ballast, contact the Engineer immediately and prevent the area from being disturbed.

Choose “Aviation Environmental Programs” or “Seaport Environmental and Planning” in Item 2 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 ballasts from the site within 30 days for storage in accordance with 49 CFR 761.65(b).
    1. Clean-up Procedures for Broken Lamps
       1. The Contractor shall have a cleanup kit on site prior to removing or dismantling universal waste lamp fixtures.
       2. Avoid breathing dust created by broken lamps. Allow vapor to dissipate.
       3. Do not vacuum the broken lamps.
       4. Ventilate area and leave area for 5 minutes prior to returning to clean up broken glass. Keep people from the site.
       5. Use approved and appropriate cleanup solvents and neutralizers.
       6. Place all broken glass and phosphor powder in double plastic taped bags, place the bagged debris in sealed containers, and label as specified in this Section.
  1. TEMPORARY STORAGE, TRANSPORTATION AND DISPOSAL
     1. Temporary Storage
        1. The Contractor may temporarily store non-leaking PCB ballasts onsite for a maximum of 30 days. Contractor must arrange for transfer to the Port of Seattle within 30 days. Contractor cannot store PCB ballasts onsite for more than 30 days.
        2. Leaking PCB ballasts cannot be temporarily stored onsite. If leaking PCB ballasts are discovered, immediately contact the Engineer.
        3. Universal waste lamps that have been removed, properly packaged, and are awaiting disposal must be stored in a manner consistent with WAC-173-303-573 and the Contractor’s Pollution Prevention Plan.
        4. Under no circumstances shall universal waste be stored onsite for longer than 1 year.
     2. Transportation and Recycling
        1. PCB Ballasts
           1. The Port will take possession of and remove from the project site, all non-leaking PCB ballasts at a minimum of every 30 days.
           2. The Contractor is responsible for scheduling transfer of drums to the Port. The Contractor must notify the Engineer at least 48 hours in advance to coordinate pickup of drums by the Port.
        2. Non-PCB Ballasts
           1. The Contractor is responsible for soliciting a waste service provider and any cost negotiations regarding disposal.
           2. The Port of Seattle requires that all non-PCB ballasts are recycled. Landfill of any light ballast is not allowed under this contract. The Contractor must ensure that the disposal/recycling facility will separate metal components from the ballast for recovery.
     3. Universal Waste Lamps
        1. Universal waste lamps shall be packaged, labeled and transported to the Port approved recycling facility. Include documentation in the form of log, invoice, manifest, bill of lading or other shipping documents. This documentation shall include the name and address of the generator, address of the site where the waste was generated, quantity, date of shipment, name and address of hauler and name and address of waste facility receiving waste.
        2. If an alternate permitted facility has been identified by the Contractor, the facility must be approved by the Port.
        3. The Port of Seattle shall be listed as the Generator of the universal waste lamps on all shipping papers.
        4. The Contractor shall provide a shipping record to the Port at the time of shipment.

Choose “Aviation Environmental Programs” or “Seaport Environmental and Planning” address in Item 6 below.

* + - 1. The Contractor shall arrange for all certificates of recycle to be mailed to the Port at the following address:

Aviation Environmental Programs

Port of Seattle AV/ENV

Attn: Chris Milewski

PO Box 68727

Seattle, WA 98168-0727

Seaport Environmental and Planning

Port of Seattle

Attn: Mike DeSota

2711 Alaskan Way

Seattle, WA 98121

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 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

09/17/19 Added Chris Milewski to address in 3.03.C.6

03/10/20 Revised Ballast Language