**DESIGN A/E NOTE - GUIDE SPECIFICATION CONVENTIONS**

**Color-highlighted text**

**Yellow**: Editor’s Notes. Comments inserted into the text are addressed to the A/E, not the Contractor. Editor’s Notes are formatted as hidden text. Editor’s Notes are not identified with an update. Do not print Editor’s Notes in issue for distribution to Bidders/Contractors.****

**Tip**: To not print Editor’s Notes (hidden text) in document choose Tools on Menu bar, click Options, Print tab, under Include with document, uncheck Hidden text (check to print text), click OK. Save.****

**Tip**: To view Editor’s Notes (hidden text) in a document choose Tools on Menu bar, click Options, View tab, under Formatting marks, check Hidden text (uncheck to hide text), click OK. Save.****

**Red**: Text updated in 1st quarter. April – June.****

****Strikethrough text and highlighting (not text) in previously issued quarters are deleted. Only 1st quarter highlighted updated text is indicated.****

**Turquoise**: Text updated in 2nd quarter. July – September.****

****1st quarter updated text remains highlighted.****

**Pink**: Text updated in 3rd quarter. October – December.****

****1st and 2nd quarter updated text remain highlighted.****

**Bright Green**: Text updated in 4th quarter. January – March.****

****1st, 2nd and 3rd quarter updated text remains highlighted.****

**Text Editing**

****Select options** [in brackets] **and edit <**notes**> before issuing specifications for distribution to Bidders/Contractors.****

****Delete Strikethrough text.****

**Tip**: To delete strikethrough text, choose Edit on Menu bar, click Find, Find tab, More (Search Options opens), select All, click Format, Font, check Strikethrough, OK.****

 ****Click Replace tab, Replace All, OK, Close. Save.****

****Delete all highlighting of text from issue to be distributed to Bidders/Contractors.****

**Tip: To delete highlighting, locate cursor at beginning of Section and block all text in Section, press Shift + Control + End, click No Highlight icon on Formatting toolbar. Save.**

**IMPORTANT: Retain month and year under section title on first page indicating updated Guide Specification Section issue used.**

**Note**: This**** page ****will not print when Hidden text is unchecked as indicated in Editor’s Notes Tip.****

IF THE HIDDEN GUIDE SPECIFICATION CONVENTIONS DO NOT APPEAR PRECEEDING THIS

NOTE, TURN THEM ON AS FOLLOWS.

**FOR MICROSOFT WORD 2000 and 2003**, CLICK ON SHOW/HIDE ICON IN MENU BAR OR CHOOSE

TOOLS IN MENU BAR. THEN CLICK OPTIONS, VIEW TAB, UNDER FORMATTING MARKS, CHECK

HIDDEN TEXT.

**FOR MICROSOFT WORD 2007,** CLICK ON MICROSOFT OFFICE ICON LOCATED IN UPPER LEFT

CORNER OF MENU BAR. CLICK ON WORD OPTIONS AT BOTTOM OF DROP DOWN. THEN CLICK

ON DISPLAY. CHECK THE HIDDEN TEXT BOX.

**FOR MICROSOFT OFFICE 2010,** CLICK ON FILE BUTTON LOCATED IN UPPER LEFT CORNER OF

MENU BAR. IN THE DROP DOWN, CLICK ON OPTIONS, AND A WORD OPTIONS BOX WILL

APPEAR. CLICK ON DISPLAY. CHECK THE HIDDEN TEXT BOX.

THE GUIDE SPECIFICATION CONVENTIONS SHOULD NOW BE VISIBLE IN THE DOCUMENT.

(Delete this note before printing.)

SECTION 02 84 16

LIGHTING BALLAST AND LAMP DISPOSAL

(Edited from DeCA June 2022 Design Criteria)

1. GENERAL
	* + 1. SUMMARY
				1. Section Includes:

Removal and disposal of PCB containing lighting ballasts and associated mercury-containing lamps. Contractor may encounter leaking PCB ballasts.

* + - 1. RELATED SECTIONS

Division 01 Section Summary of Work.

Division 01 Section Work Restrictions.

Division 01 Section Administration Requirements.

Division 01 Section Construction Progress Documentation.

Division 01 Section Phased Construction

Division 01 Section Sustainable Design Reporting.

Division 01 Section Government Safety Requirements.

Division 01 Section Government Furnished Products.

Division 01 Section Environmental Management.

Division 01 Section Environmental Procedures for Refrigeration.

Division 01 Section Temporary Facilities and Controls.

Division 01 Section Cutting and Patching.

Division 01 Section Closeout Procedures.

Division 02 Section Demolition.

* + - 1. DEFINITIONS
				1. Certified Industrial Hygienist (CIH): An industrial hygienist hired by the contractor shall be certified by the American Board of Industrial Hygiene.
				2. Leak: 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.
				3. Lamps: Lamp, also referred to as "universal waste lamp" is defined as the bulb or tube portion of an electric lighting device. A lamp is specifically designed to produce radiant energy, most often in the ultraviolet, visible, and infra-red regions of the electromagnetic spectrum. Examples of common universal waste electric lamps include, but are not limited to, fluorescent, high intensity discharge, neon, mercury vapor, high pressure sodium, and metal halide lamps.
				4. Polychlorinated Biphenyls (PCBs): PCBs as used in this specification shall mean the same as PCBs, PCB containing lighting ballast, and PCB container, as defined in 40 CFR 761, Section 3, Definitions.
				5. Spill: 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.
				6. Universal Waste: Universal Waste means any of the following hazardous wastes that are managed under the universal waste requirements 40 CFR 273:

Batteries as described in Sec. 273.2 of this chapter;

Pesticides as described in Sec. 273.3 of this chapter;

Thermostats as described in Sec. 273.4 of this chapter; and

Lamps as described in Sec. 273.5 of this chapter.

* + - 1. SUBMITTALS

Revise or delete paragraphs below to suit Project

* + - * 1. Certificates

Qualifications of CIH;

Training Certification;

PCB and Lamp Removal Work Plan;

PCB and Lamp Disposal Plan;

Transporter certification of notification to EPA of their PCB waste activities and EPA ID numbers;

Certification of Decontamination;

Certificate of Disposal and/or recycling. Submit to the Government before application for payment within 30 days of the date that the disposal of the PCB and mercury-containing lamp waste identified on the manifest was completed; and DD Form 1348-1.

* + - * 1. Field Test Reports:

Testing results.

* + - 1. ENVIRONMENTAL REQUIREMENTS:
				1. Use special clothing

Disposable gloves (polyethylene).

Eye protection.

PPE as required by CIH.

* + - 1. QUALITY ASSURANCE
				1. Qualifications of CIH: Submit the name, address, and telephone number of the Industrial Hygienist selected to perform the duties in paragraph entitled "Certified Industrial Hygienist." Submit training certification that the Industrial Hygienist is certified, including certification number and date of certification or re certification.
				2. PCB and Lamp Removal Work Plan: Submit a job-specific plan within **[20]** calendar days after award of contract of the work procedures to be used in the removal, packaging, and storage of PCB-containing lighting ballasts and associated mercury-containing lamps. Include in the plan: Requirements for Personal Protective Equipment (PPE), spill cleanup procedures and equipment, eating, smoking and restroom procedures. The plan shall be approved and signed by the Certified Industrial Hygienist. Obtain approval of the plan by the Contracting Officer prior to the start of PCB and/or lamp removal work.
				3. PCB and Lamp Disposal Plan: Submit a PCB and lamp Disposal Plan with **[45]** calendar days after award of contract. The PCB and Lamp Disposal Plan shall comply with applicable requirements of federal, state, and local PCB and Universal waste regulations and address:

Estimated quantities of wastes to be generated, disposed of, and recycled.

Names and qualifications of each Contractor that will be transporting, storing, treating, and disposing of the wastes. Include the facility location. Furnish two copies of EPA and state PCB and mercury-containing lamp waste permit applications and EPA identification numbers, as required.

Names and qualifications (experience and training) of personnel who will be working on-site with PCB and mercury-containing lamp wastes.

Spill prevention, containment, and cleanup contingency measures to be implemented.

Work plan and schedule for PCB and mercury-containing lamp waste removal, containment, storage, transportation, disposal and or recycling. Wastes shall be cleaned up and containerize daily.

* + - 1. COORDINATION
				1. Notify the Contracting Officer 20 days prior to the start of PCB and mercury-containing lamp removal work.
1. PRODUCTS - NOT USED
2. EXECUTION

Revise or delete paragraphs below to suit Project.

* + - 1. WORK PROCEDURE: Furnish labor, materials, services, and equipment necessary for the removal of PCB containing lighting ballasts, associated mercury-containing fluorescent lamps, **[and high intensity discharge (HID) lamps]** in accordance with local, state, or federal regulations. Do not expose PCBs to open flames or other high temperature sources since toxic decomposition by-products may be produced. Do not break mercury containing fluorescent lamps or high intensity discharge lamps.
				1. Work Operations: Ensure that work operations or processes involving PCB or PCB-contaminated materials are conducted in accordance with 40 CFR 761, 40 CFR 262 40 CFR 263, and the applicable requirements of this section, including but not limited to:

Obtaining suitable PCB and mercury-containing lamp storage sites.

Notifying Contracting Officer prior to commencing the operation.

Reporting leaks and spills to the Contracting Officer.

Cleaning up spills.

Inspecting PCB and PCB-contaminated items and waste containers for leaks and forwarding copies of inspection reports to the Contracting Officer.

Maintaining inspection, inventory and spill records.

* + - 1. PCB Spills: Immediately report to the Contracting Officer any PCB spills.
				1. PCB Spill Control Area: Rope off an area around the edges of a PCB leak or spill and post a "PCB Spill Authorized Personnel Only" caution sign. Immediately transfer leaking items to a drip pan or other container.
				2. PCB Spill Cleanup: 40 CFR 761, subpart G. Initiate cleanup of spills as soon as possible, but no later than 24 hours of its discovery. Mop up the liquid with rags or other conventional absorbent. The spent absorbent shall be properly contained and disposed of as solid PCB waste.
				3. Records and Certification: Document the cleanup with records of decontamination in accordance with 40 CFR 761, Section 125, Requirements for PCB Spill Cleanup. Provide test results of cleanup and certification of decontamination.
			2. REMOVAL
1. Ballasts: As ballasts are removed from the lighting fixture, inspect label on ballast. Ballasts without a "No PCB" label shall be assumed to contain PCBs and containerized and disposed of as required under paragraphs STORAGE FOR DISPOSAL and DISPOSAL. If there are less than 1600 "No PCB" labeled lighting ballasts dispose of them as normal demolition debris.  **[If there are more than 1600 "No PCB" labeled ballasts, establish whether the "No PCB" labeled ballasts contain diethylhexyl phthalate (DEHP) either by test or by checking with the ballast manufacturer indicated on the label. Submit testing results and/or written confirmation from the manufacturer to the Contracting Officer. If the ballasts do not contain DEHP, dispose of them as normal construction debris. If they do contain DEHP, dispose of them as hazardous material in accordance with Federal, State, and local regulations. As a basis of bid assume ballasts with "No PCB" labels do not contain DEHP and may disposed of as normal construction debris. If 1600 or more DEHP ballasts are disposed of in a 24 hour period, notify the National Response Team at 800-424-8802.]**
2. Lighting Lamps: Remove lighting tubes/lamps from the lighting fixture and carefully place (unbroken) into appropriate containers (original transport boxes or equivalent). In the event of a lighting tube/lamp breaking, sweep and place waste in double plastic taped bags and dispose of as universal waste as specified herein.
	* + 1. STORAGE FOR DISPOSAL
				1. Storage Containers for PCBs: 49 CFR 178. Store PCB in containers approved by DOT for PCB.
				2. Storage Containers for lamps: Store mercury containing lamps in appropriate DOT containers. The boxes shall be stored and labeled for transport in accordance with 40 CFR 273.
				3. Labeling of Waste Containers -Label with the following:

Date the item was placed in storage and the name of the cognizant activity/building.

"Caution Contains PCB," conforming to 40 CFR 761, CFR Subpart C. Affix labels to PCB waste containers.

Label mercury-containing lamp waste in accordance with 40 CFR 273. Affix labels to all lighting waste containers.

* + - 1. DISPOSAL: Dispose of off Government property in accordance with EPA, DOT, and local regulations at a permitted site.
				1. Identification Number: Federal regulations 40 CFR 761, and 40 CFR 263 require that generators, transporters, commercial storers, and disposers of PCB waste possess U.S. EPA identification numbers. The contractor shall verify that the activity has a U.S. EPA generator identification number for use on the Uniform Hazardous Waste manifest. If not, the contractor shall advise the activity that it must file and obtain an I.D. number with EPA prior to commencement of removal work. For mercury containing lamp removal, Federal regulations 40 CFR 273 require that large quantity handlers of Universal waste (LQHUW) must provide notification of universal waste management to the appropriate EPA Region (or state director in authorized states), obtain an EPA identification number, and retain for three years records of off-site shipments of universal waste. The contractor shall verify that the activity has a U.S. EPA generator identification number for use on the Universal Waste manifest. If not, the contractor shall advise the activity that it must file and obtain an I.D. number with EPA prior to commencement of removal work.
				2. Transporter Certification: Comply with disposal and transportation requirements outlined in 40 CFR 761 and 40 CFR 263. Before transporting the PCB waste, sign and date the manifest acknowledging acceptance of the PCB waste from the Government. Return a signed copy to the Government before leaving the job site. Ensure that the manifest accompanies the PCB waste at all times. Submit transporter certification of notification to EPA of their PCB waste activities (EPA Form 7710-53).
				3. Certificate of Disposal and/or Recycling: 40 CFR 761. Certificate for the PCBs and PCB items disposed shall include:

The identity of the disposal and or recycling facility, by name, address, and EPA identification number.

The identity of the PCB waste affected by the Certificate of Disposal including reference to the manifest number for the shipment.

A statement certifying the fact of disposal and or recycling of the identified PCB waste, including the date(s) of disposal, and identifying the disposal process used.

A certification as defined in 40 CFR 761.

* + - * 1. Disposal by the Government: Comply with disposal and transportation requirements outlined in 40 CFR 761and 40 CFR 263. Load and haul PCBs to the storage site at a location designated by the Contracting Officer.
				2. **[Delivery] [Government Pick Up]**: Contact Contracting Officer at least 5 working days in advance to make arrangements for **[delivery of PCB to the storage site.] [pick up of PCB waste by the Government.]**
				3. DD Form: 1348-1: Prepare DD Form 1348-1 Turn-in Document (TID), which will accompany the PCB to the storage site. Ensure that a responsible person from the activity that owns the PCB signs the DD Form 1348-1.

**END OF SECTION**