



# AET INSIGHTS

## FREQUENTLY ASKED QUESTIONS RENOVATIONS/REMODELING -DECISION-MAKING

### Lighting upgrades - PCB containing Fluorescent Light Ballasts

**My company plans to remodel 3 floors of our multi-story corporate headquarters facility. Remodeling involves removal and replacement of the ceiling and lighting system on each floor to facilitate interior wall relocations for new office plans. An asbestos survey has confirmed no asbestos content in the ceiling tile, flooring, wall systems and on the structural decking. Am I missing an area of concern prior to commencing operations?**

**ANSWER:** Depending on the age of your facility, the fluorescent lighting may contain PCBs within the light ballasts. Lighting ballasts regulate the current to the lamps in the fluorescent lights and provide sufficient voltage to start the lamps. Prior to 1979, PCBs were commonly used as an insulator in the ballasts. Light ballasts can contain 1-3 fluid ounces of PCB liquid which is sealed within the capacitor.

**DETERMINE PCB CONTENT BY VISUAL INSPECTION:** After 1978, EPA regulations required all manufacturers of ballasts to identify PCB content by labeling the ballasts as “contains no PCBs”. Should this marking not be found, the assumption is that the ballast does contain PCBs.

**HANDLING CONCERNS:** Handling of non-damaged (i.e., not leaking) ballasts should not pose a hazard. However, damage is not always readily evident and a management plan for worker training and personal protective equipment use must be in-place prior to the initiation of work. Handling of leaking or damage ballasts can result in PCB exposures to workers by both inhalation and skin contact. PCBs are linked to cancer and have been shown to cause a number of non-cancer health effects in animals, including affects on the immune, reproductive, nervous and endocrine systems.

**DISPOSAL:** AET recommends light ballasts be recycled to minimize the hazardous waste stream generated and clients future liability. Ballasts are removed from the light fixture external wiring clipped and placed in 55 gallon metal drums. The drums are shipped to a recycler where the ballasts are disassembled. The metal portion of the ballast is recycled at a smelting foundry; the remaining potting material, wrapping and capacitor are then disposed of by incineration. The recycler provides a Certificate of Reduction/Disposal for recordkeeping.

**IAQ CONCERNS:** The ballasts on the remaining floors should also be inspected for PCB content and properly maintained and managed in-place. The EPA recommends removing PCB-containing ballasts from buildings as soon as possible to prevent exposure. Ballasts can leak and also release smoke when they fail.

**LABELING:** In 1979, the EPA banned the processing and use of PCBs, except in totally enclosed equipment. However, significant quantities of fluorescent light ballasts were installed after the 1979 phase-out since manufacturers were permitted to use up all stored inventory (check ballasts labeling throughout the 1980s).

**ENERGY SAVINGS:** EPA research indicates lighting upgrades can significantly increase energy efficiencies and the cost of replacement light fixtures can be recouped in less than 7 years depending upon the hours of operation and local energy costs.

When you need professional help or advice, email Alan Sutherland, CIH, CHMM at [a.sutherland@aetinc.biz](mailto:a.sutherland@aetinc.biz) or call 610-891-0114. We provide nationwide services; phone consultations are free. Check out the full range of environmental contracting/consulting services we provide at our website [www.aetinc.biz](http://www.aetinc.biz).