



# Connecticut Department of Energy and Environmental Protection



Connecticut Department of  
**ENERGY &  
ENVIRONMENTAL  
PROTECTION**

# PCBs in Building Materials

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# Connecticut PCB Statutory Requirements

- ▶ PCBs are regulated at all concentrations, not only 50ppm and above
- ▶ Effect of Pre-emption
- ▶ CGS Sec. 22a-463 through 22a-469a



# Connecticut PCB Statutory Requirements

## ▶ 22a-463 Polychlorinated biphenyls (PCB). Definitions.

- ✦ As used in sections 22a-463 to 22a-469, inclusive:
- ✦ "PCB" means the class of organic compounds known as polychlorinated biphenyls or terphenyls and includes any of several compounds produced by replacing two or more hydrogen atoms on the biphenyl or terphenyl molecule with chlorine.



# Connecticut PCB Statutory Requirements

- ▶ 22a-464 Restrictions on manufacture, sale or use of PCB.
  - ◆ Manufacture of PCB banned - July 1, 1976,
  - ◆ Sale of PCB banned - July 1, 1976,
  - ◆ Exception – registration with commissioner.
  - ◆ Banned use of PCB in the manufacture of an item, product or material or sale or offer for sale an item, product or material to which the compound PCB has been added on or after July 1, 1977, except in accordance with section 22a-465.



# Connecticut PCB Statutory Requirements

- ▶ 22a-465 Use of PCB in closed systems.
  - ✦ An item, product or material containing the compound PCB may be manufactured for sale, sold for use or used if the compound PCB is used in a closed system as a dielectric fluid for an electric transformer or capacitor.
  - ✦ An item, product or material containing the compound PCB may be manufactured for sale, sold for use or used provided an exemption has been granted by the commissioner in accordance with section 22a-466.



# Connecticut PCB Statutory Requirements

## ▶ 22a-466 Exemptions.

- ✦ Commissioner may grant exemption for the manufacture for sale, sale for use or use of an item, product or material containing the compound PCB or use of the compound PCB provided there is no reasonable substitute.
- ✦ Anyone intending to manufacture or continue to manufacture for sale, sell for use or continue to sell for use, use or continue to use an item, product or material containing the compound PCB or intending to use or continue to use the compound PCB after July 1, 1977, for uses other than those exempted pursuant to section 22a-465, must file a request for exemption with the commissioner at least six months prior.



# Connecticut PCB Statutory Requirements

## ▶ 22a-466 continued

- ✦ Exemption request shall contain a complete description of the intended use, the amounts involved, the reasons a substitute cannot be used and the means for preventing discharge.
- ✦ The commissioner may impose such conditions as he deems appropriate.
- ✦ All exemptions expire annually on July first. Reapplication for an exemption must be filed before January first.



# Connecticut PCB Statutory Requirements

- ▶ 22a-467 Disposition of PCB regulated.
  - ✦ For purposes of this section, "dispose" means to incinerate or treat the compound PCB or any item, product or material containing the compound PCB, or to discharge, deposit, inject, dump or place the compound PCB or any item, product or material containing the compound PCB into or on land or water so that such compound, item, product or material enters the environment, is emitted into the air, or is discharged into any waters, including groundwaters.



# Connecticut PCB Statutory Requirements

## ▶ 22a-467 continued

- ◆ No person shall dispose of the compound PCB or any item, product or material containing the compound PCB except in accordance with a permit issued pursuant to section 22a-208a, 22a-430 or 22a-454.
- ◆ Or, in accordance with a written approval by the commissioner, if such disposal
  - (1) results in destruction of the compound PCB; or
  - (2) is not inconsistent with the provisions of Part 761 of Title 40 of the Code of Federal Regulations.



# Connecticut PCB Statutory Requirements

## ▶ 22a-468 Regulations.

- ◆ The commissioner may adopt regulations as he deems appropriate to implement the provisions of sections 22a-463 to 22a-469, inclusive.

## ▶ 22a-469 Penalty.

- ◆ Anyone that violates sections 22a-463 to 22a-469, inclusive, shall be subject to the penalties provided for in section 22a-438.

## ▶ 22a-469a Incineration.

- ◆ Incineration of PCB by public service companies.



# So, what does 22a-438 say?

- ▶ 22a-438 Forfeiture for violations. Penalties.
  - ✦ Anyone who violates any provision of CGS chapter 22a-446k, or CGS section 22a-6 or 22a-7 shall be assessed a civil penalty up to
    - \$25,000/offense,
    - each day = a separate and distinct offense.
  - ✦ In determining penalty amount, may consider
    - the nature,
    - circumstances,
    - extent and gravity,
    - prior history,
    - the economic benefit,
    - and such other factors deemed appropriate.



# 22a-438 continued

✦ Anyone who with criminal negligence violates any provision of CGS 22-446k, or sec. 22a-6 or 22a-7 shall be fined not more than

- \$25,000/day/violation or
- 1yr in prison or both.
- A subsequent conviction = \$50,000/day/violation or
- 2yr in prison or both.

✦ Anyone who knowingly violates any provision of CGS 22a-446k, or CGS 22a-6 or 22a-7 shall be fined not more than

- \$50,000/day/violation or
- 3yr in prison or both.
- A subsequent conviction = \$100,000/day/violation or
- 10yr in prison or both.



# What do we do?

DEEP has developed a guidance table in conjunction with EPA Region 1

- compares remediation and disposal options for caulking material contaminated with PCBs and associated substrates;
- although specific to caulk, the table can generally be applied to other building materials that contain PCBs;
- in many cases, state and federally regulated PCB contaminated building materials are found in conjunction with one another;
- characterization of building materials should be consistent with the requirements of 40 CFR 761 as well as Connecticut requirements.





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## Renovation & Demolition: Environmental, Health & Safety Requirements You Should Know About

Do you do renovation or demolition work, or hire or oversee those who do?



If so, there are a number of environmental, health, and safety requirements that may apply to you.

Some of the more common and important of these requirements are listed below. Please note that not every possible requirement is listed, and that this information is only intended as a helpful summary.

If you would like more information about the requirements that apply to renovation and demolition, please contact the agencies listed in [Table 1](#) at the bottom of this page.

### Asbestos

Asbestos may be present in materials such as pipe, boiler, or tank insulation, plaster, siding, and roofing. Residential structures with 5 or more units, and commercial, industrial, institutional, and public structures must be inspected by an asbestos consultant **before** renovation or demolition is started, to determine if asbestos is present. A notification must be submitted to DPH whenever more than 10 linear or 25 square feet of asbestos will be disturbed. A notice must also be submitted to DPH when any structure is demolished. Consultants and contractors are licensed by DPH. Asbestos is regulated as a "special waste," and cannot be disposed of with regular trash. Asbestos work must be done in accordance with worker protection requirements. [Table 1](#), Key A1, B1, C2, C3, D, & E.

### Lead-Based Paint

# CONNECTICUT DEEP CAULK GUIDANCE

*DISCLAIMER: THIS CHART IS NOT INTENDED TO REPLACE THE CT DEEP STATUTES OR THE PCB REGULATIONS UNDER 40 CFR PART 761.*

	<b>Caulk <math>\geq</math> 50 parts per million (ppm) PCBs (EPA)</b>	<b>Caulk &lt; 50 ppm PCBs (CT DEEP) <sup>(1)</sup></b>
<b>Renovation</b>	Remove all caulk $\geq$ 50 ppm	Remove caulk > 1 ppm – 49 ppm
<b>Substrate</b>	Test, and if > 1 ppm, clean up per 40 CFR § 761.61 and § 761.62 <sup>(2)</sup>	Test, and if > 1 ppm, seal/encapsulate substrate as interim measure and obtain annual exemption per CGS 22a-466 or remove all substrate with > 1 ppm.
<b>Non-renovation</b>	Remove all caulk $\geq$ 50 ppm and dispose in accordance with 40 CFR § 761.62	Encapsulate/seal any caulk > 1 ppm and < 50 ppm, have a plan to address at later date, and perform annual monitoring for effectiveness of encapsulant. <b>DEEP recommends removal as soon as possible.</b>
<b>Substrate</b>	Test, and if > 1 ppm, clean up per 40 CFR § 761.61 and § 761.62 <sup>(2)</sup>	Test, and if > 1 ppm have plan to address at later date.
<b>Full demolition</b>	Remove caulk $\geq$ 50 ppm and dispose in accordance with 40 CFR § 761.62	Remove caulk < 50 ppm
<b>Substrate</b>	If building substrate is >1 ppm, remove with caulk and dispose in accordance with 40 CFR § 761.62; <ul style="list-style-type: none"> <li>• a RCRA hazardous waste landfill</li> <li>• a TSCA-approved disposal facility</li> <li>• a solid waste landfill permitted under § 40 CFR Part 258 (RCRA title D) (for CT facilities, a special waste authorization may be required);</li> <li>• facilities permitted to manage non-hazardous waste subject to 40 CFR 257.5 -257.30</li> </ul>	If substrate > 1 ppm - 49 ppm, dispose at: <ul style="list-style-type: none"> <li>• A solid waste landfill permitted under RCRA title D (for CT facilities, a special waste authorization may be required);</li> <li>• Bulky waste landfill (for CT facilities, a special waste authorization may be required);</li> <li>• facilities permitted to manage non-hazardous waste subject to 40 CFR 257.5 -257.30</li> <li>• a RCRA hazardous waste landfill</li> </ul>

(1) Caulk < 50 ppm PCBs which meets the definition of an *Excluded PCB Product* at 40 CFR 761.3, is generally regulated by CT DEEP pursuant to CGS. Caulk that does not meet the criteria for an *Excluded PCB Product* may be regulated under 40 CFR Part 761 as a *PCB Remediation Waste* (EPA). An example of a *PCB Remediation Waste* would be replacement caulk that was installed in 1990 and was contaminated by contact with a PCB-contaminated substrate where the original caulk was  $\geq$  50 ppm PCBs. Cleanup of *PCB Remediation Waste* would be regulated under 40 CFR § 761.61.

(2) Under the October 24, 2012 PCB Bulk Product Waste Reinterpretation, building substrates may be disposed of with attached caulk as a *PCB bulk product waste* in accordance with § 761.62. Building substrates remaining in place (after caulk/substrate removal) are classified as a *PCB remediation waste* and regulated for cleanup under § 761.61.

# Connecticut DEEP Recommendations for Handling PCB Materials

## (that differs from the EPA guidance)

- ▶ Maintenance staff should not be wiping sweeping, or otherwise handling PCB materials, including caulk, due to the lack of training as a Hazardous Material Worker;
- ▶ If PCB caulk is in good condition, it may be painted over as an interim precaution, however, all paint brushes used should be disposed and not reused in the future;



# Connecticut DEEP Recommendations for Handling PCB Materials (continued)

- ▶ If flaked or chipped caulk is present, after removal of the flakes, the materials (i.e. floors, soil, etc.) with which they have come into contact should be sampled for PCB and may need to be cleaned by a licensed contractor if contamination is confirmed;
- ▶ Any mops, brooms, rags, etc. which have come into contact with the PCB material should be disposed as a PCB waste and not reused.



# Ballasts

- Commonly Used
- Marked
- Heat puts PCBs into the air and becomes absorbed by other materials
- Fires & Spills



A typical pre-1979 PCB-containing fluorescent light ballast (FLB)



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# Questions and Discussion

