

## **PCB AND DIOXIN RE-ENTRY CRITERIA FOR BUILDING SURFACES AND AIR**

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*A number of fires involving polychlorinated biphenyl (PCB)-containing transformers and capacitors have occurred in the United States. PCB fires generate by-products such as polychlorinated dibenzofurans (PCDFs) and polychlorinated dibenzodioxins (PCDDs) and, when the transformer is in a building, contaminate the interior. Considerable concern exists over the potential human health effects associated with exposure by inhabitants to residual levels of PCBs, PCDFs and PCDDs. Office workers, for example, may be exposed to these chlorinated compounds via inhalation of contaminated particulates and vapors, dermal contact with contaminated surfaces, and incidental ingestion of dusts. A wide range of re-entry or cleanup levels have been developed for PCDDs and PCBs to protect workers who re-occupy a building following a PCB fire. Re-entry criteria have been used by property owners and regulatory agencies to determine whether the building is safe to re-occupy or to determine the extent of needed remediation. This paper presents a mass balance approach to deriving*