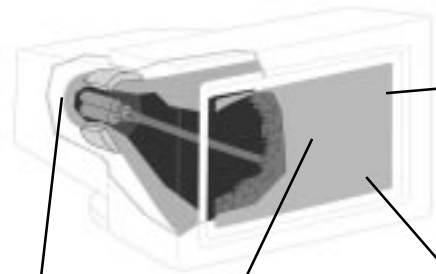




Clean Computer Campaign
Silicon Valley Toxics Coalition
 760 North 1st St. San Jose, CA 95112 svtc@svtc.org http://www.svtc.org 408-287-6707



Phosphor

Phosphor is applied as a coat to the interior of the CRT face plate. The hazards of phosphor are not well known, but the Navy warns this substance is "extremely toxic".

Barium

Barium is used in the front panel of the CRT to protect users from radiation. Studies show that short-term exposure to barium can cause brain swelling, muscle weakness, and damage to the heart, liver and spleen.

Brominated Flame Retardants

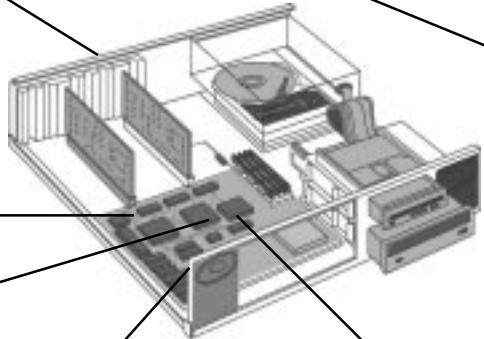
Polybrominated Diphenylethers (PBDE) are frequently used flame retardants & are likely endocrine disrupters. Research has revealed that levels of PBDEs in human breast milk are doubling every five years. PBDEs, like many halogenated organics, reduce levels of the hormone thyroxin in exposed animals & can potentially harm the developing fetus. Thyroxin is an essential hormone needed to regulate the normal development of all animal species, including humans.

Hexavalent Chromium

Used for corrosion protection of untreated & galvanized steel plates & hardener for steel housing. It can cause DNA damage & asthmatic bronchitis.

Lead

Cathode Ray Tubes (CRT) displays contain 4-8 lbs of lead & most solder used in circuit boards is leaded. CRTs are banned from landfills in Calif. & Mass., since US EPA determined possibility for lead to leach from equipment in landfills. Lead is toxic to the kidneys, nervous & reproductive systems & inhibits mental development of young children and fetuses.



Plastics

Plastics, including PVC make up to 13.8 pounds of an average computer. Dioxin can be formed when PVC is burned within a certain temperature range. Combinations of plastics are used in printed circuit boards, in components such as connectors, plastic covers & cables. Recyclers have difficulty identifying and separating different types of plastic.

Beryllium

Beryllium is commonly found on motherboards and connectors. Beryllium has recently been classified as a human carcinogen.

Mercury

Light bulbs in flat panel displays, switches, & printed wiring boards all contain mercury. High levels of exposure contribute to brain & kidney damage, harm the developing fetus & can be passed down through breast milk. A recently issued fish advisory warns young children & pregnant women to two meals of fish caught in San Francisco Bay because of high levels of mercury found in San Francisco Bay fish. Mercury is stored in the fat of animals.

Cadmium

Surface Mount Device (SMD) chip resistors, infrared detectors, semiconductors and older types of cathode ray tubes contain cadmium. Furthermore, cadmium is used as a plastic stabilizer. It concentrates in the body & can cause kidney damage & harm to fragile bones.



Images courtesy of Materials for Future Foundation