February 10, 2016

PCB Health Fact Sheet

We are aware that concerns have been raised about potential health risks associated with polychlorinated biphenyls (PCBs) at Malibu High School (MHS) and Juan Cabrillo Elementary School (JCES) and wanted to provide some information to address these concerns.

- **It is important to know that adverse health effects can only occur when there is enough exposure to cause harm. The levels of PCBs that we have seen at MHS and JCES are so low that adverse health effects would not be expected.**
  - Over 1,000 air and wipe samples have been collected from the two schools and every regularly-occupied room has been sampled at least once since December 2013. The PCB concentrations in these samples are nearly all undetected, and all samples were well below EPA's benchmarks for PCBs in school air.
  - On November 17, 2015 responding to correspondence from Congressman Ted Lieu, EPA clarified that recent America Unites sampling at MHS and JCES did not change EPA's conclusion that "PCB exposure pathways are currently being addressed by the District in a manner that protects public health."

- **Many types of health effects are not associated with PCBs at all. For example, PCBs are not known to cause any of the following at any exposure level:**
  - Chronic sinusitis
  - Bronchitis and similar respiratory issues
  - Headaches or migraines
  - Hair loss
  - Type 1 diabetes

- **While PCBs have been linked to certain health effects in experimental animals at high exposure levels or in people exposed at high concentrations, PCB samples at MHS and JCES are well below levels associated with any adverse effects. Even if people remain in the MHS or JCES setting over a long time period (i.e., more than 25 years) their exposures would remain well below those causing any adverse effects. Here are some examples of the levels of exposure linked to particular health effects, and how those differ from the levels at MHS and JCES:**
  - *Immunological effects and skin rashes*: These have been reported in experimental animals, particularly monkeys, and in some people, when exposed chronically to high levels of PCBs, sometimes in combination with other chemicals. The level of PCB

exposure that has been linked to these effects is over 1,000 times greater than the measured level of exposure at MHS and JCES.

- *Cancer*: High levels of PCB exposure have been linked to cancer in some studies with experimental animals exposed over their lifetimes. Some studies have also shown an excess cancer risk (above background cancer risks, which are about 1 in 2 for men and 1 in 3 for women, according to the American Cancer Society*) in humans chronically exposed to high levels of PCBs. The level of PCB exposure that has been linked to these effects is over 1,000 times greater than the measured level of exposure at MHS and JCES. There are many other factors that can contribute to cancer. For thyroid cancer in particular, those risks include low iodine, radiation exposure, family history of thyroid cancer, obesity, and history of other thyroid conditions.

In conclusion, based on scientific studies regarding the potential health effects of PCBs, we can conclude that the health effects discussed here are either not linked to PCBs or are only linked to PCBs at exposure levels that are more than 1,000 times higher than at MHS or JCES. In light of the volume of exposure data from MHS and JCES, we are confident in the EPA's statement that "PCB exposure pathways are currently being addressed by the District in a manner that protects public health."

**The American Cancer Society estimates that 1 in 2 (50%) men and 1 in 3 (33%) women will develop cancer at some point during their lifetimes. This is what is known as the "background" cancer risk, while "excess" cancer risk is the increased risk of cancer over and above that background risk from exposure to any one particular thing. Scientists measure the risk from a particular exposure by comparing it to the background cancer risk: how much more likely is it that a person would develop cancer due to the exposure in question? http://www.cancer.org/*