**To:** Mangino, Mario[mangino.mario@epa.gov]
**From:** Cisneros, Jose
**Sent:** Mon 5/9/2016 8:18:10 PM
**Subject:** RE: Sky Valley School - PCB Air Testing Data and Potential Health Risk

Thanks, Mario.

Joe

**From:** Mangino, Mario
**Sent:** Monday, May 09, 2016 2:09 PM
**To:** Moore, Kendall <moore.kendall@epa.gov>; Ramanauskas, Peter <ramanauskas.peter@epa.gov>; Klevs, Mardi <klevs.mardi@epa.gov>
**Cc:** Cisneros, Jose <Cisneros.Jose@epa.gov>; Beedle, Michael <beedle.michael@epa.gov>; Star, David <star.david@epa.gov>
**Subject:** Sky Valley School - PCB Air Testing Data and Potential Health Risk

***DRAFT – DELIBERATIVE - FOR INTERNAL EPA REVIEW ONLY***

I have spent some time reviewing the "Indoor Air Quality Assessment Report" for the Sky Valley Educational Center prepared by the testing consultant to the Monroe School District (Monroe, WA).

Based on our conference call last week with Region 10 and representatives from the local County Health Department, I believe we identified that one of EPA's immediate concern should focus on the potential for significance health risks from exposure to PCBs to children and staff at the Educational Center.

The sampling to date has discovered multiple sources of PCBs within the Educational Center which include the detection of PCBs in leaking and/or old fluorescent light ballasts, some wall paint samples, some carpet remnants, and some samples of caulk and sealants which were described as being located "in various areas throughout the campus." The sampling for PCBs in building materials is important for identifying sources of PCBs and determining sources and locations where PCBs are found to exceed TSCA standards for the presence of PCBs. However, those identifications of sources do not readily correlate themselves to a direct health risk assessment for PCBs. For evaluating health risk, we prefer to have data for a parameter more

directly related to exposure to PCBs and/or the identification of a complete exposure pathway.

The data on PCB Air Testing is the parameter currently available for evaluating the potential for direct exposure to PCBs at the Educational Center. The data can be used for making a preliminary evaluation of PCB exposure and making some recommendations for preventing and reducing PCB exposure within the Educational Center.

PCB Air Testing (Pages 60-62)

This Section describes the sampling of PCBs in air samples within the Education Center.

- Air samples were collected at 68 locations which were well distributed across the Center and included samples from small classrooms, large classrooms, large use areas (gyms/locker rooms), common spaces, and administration offices. Samples were described as being collected and analyzed by EPA standard Method TO-10a.

- 13 of the 68 air samples were reported to have detectable concentrations of PCBs (total Aroclors). The detected concentrations ranged from 48 nanograms/cubic meter (ng/m^3) to 270 ng/m^3.

- EPA recommends comparison of results from PCB air concentration samples to a set of screening concentrations called Exposure Levels for Evaluation (ELEs). The ELEs correspond to air concentration levels that would not exceed an EPA Reference Dose level for PCB exposure taking into account sensitivity across different age ranges (i.e., young children through teenagers and adult staff) and using exposure frequency factors and exposure duration factors expected for the occupancy of school rooms at a typical school location. The results of the comparison can be used for making multiple recommendations, including: whether additional sampling should be undertaken, whether measures should be undertaken to reduce exposures, or to prevent exposures to specific age groups and/or to specific locations within a school building.

- The results of sampling indicated that PCB air concentrations exceeded the recommended ELE of 120 ng/m^3 for children In the 1-3 year age range at 7 locations identified on page 61 of the

Report, where the detected concentrations ranged from 190 to 270 ng/m^3.

- The results of sampling also indicated that the PCB air concentration exceeded the recommended ELE of 200 ng/m^3 for children In the 3-6 year age range at 3 locations identified on page 61 of the Report, where the detected concentrations ranged from 210 to 270 ng/m^3.

Ex. 5 - Deliberative Process

# Ex. 5 - Deliberative Process

Please contact me if any clarification is need on the presentation above.

Mario Mangino

Toxicologist

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