

January 27, 2015

## MEMORANDUM

To: Sandra Lyon, SMMUSD Superintendent

From: ENVIRON International Corporation

**Subject: Update on Recent Winter Sampling Activities Related to Polychlorinated Biphenyls (PCBs) at Malibu High School and Juan Cabrillo Elementary School**

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This update is submitted to the Santa Monica-Malibu Unified School District (SMMUSD or District) to summarize ENVIRON's activities related to the recent Winter Break sampling at Malibu High School (MHS) and Juan Cabrillo Elementary School (JCES), conducted in accordance with the United States Environmental Protection Agency's (USEPA's) previously approved plan for MHS.<sup>1,2</sup> The sampling was conducted to evaluate effectiveness of on-going Best Management Practices (BMPs) at MHS and JCES by comparing measured concentrations of PCBs in air and surface dust samples from representative rooms to the USEPA Region IX-specified "no-further action" thresholds described in its October 31, 2014 approval letter.<sup>2</sup>

The results to date<sup>3</sup> indicate that the current conditions at MHS and JCES are consistent with the PCB results from the monitoring activities performed by ENVIRON during June through August 2014.<sup>4</sup> For the June through August 2014 investigation results, USEPA Region IX concluded that "[o]verall, the sampling data from the two schools demonstrate that these PCB exposure pathways are currently being addressed by the District's BMPs in a manner that protects public health. Thus, the District's undertaking of the BMPs, as verified by pre- and post-BMP sampling data, demonstrates that the TSCA [Toxic Substances Control Act] standard for no unreasonable risk is currently being met at MHS and JCES."<sup>2</sup>

Air sampling was conducted in 31 regularly occupied rooms at MHS and JCES (49 samples were collected, including duplicates and ambient air samples) and surface wipe sampling was conducted in 32 regularly occupied rooms at MHS and JCES (212 samples were collected, including re-cleaning [as needed], replicate, and duplicate samples), selected per the methods described in ENVIRON's Inspection and Sampling Report for MHS and JCES.<sup>4</sup> The initial sampling was conducted from December 20 to 29, 2014. A second and third sampling event was conducted in JCES Building F Room 19 on January 4 and January 11-12, 2015, after further cleaning as discussed below. The sample results have been received from the laboratory and are undergoing third party data validation.<sup>3</sup> In the interest of communicating the results proactively, this data transmittal has been prepared, and a final summary report will be prepared once validated data are available.

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<sup>1</sup> ENVIRON. 2014. *Supplemental Removal Information for the Library, Building E - Rooms 1, 5, and 8 and Building G - Room 506 at Malibu High School*. September 26. Available online: <http://smmusd.org/PublicNotices/MHSSuppRemovalSSP092614.pdf>

<sup>2</sup> USEPA. 2014. Letter from Jared Blumenfeld/USEPA to Sandra Lyon/SMMUSD. October 31.

<sup>3</sup> Data are currently undergoing Level III third party data validation, as described in the USEPA Contract Laboratory Program National Functional Guidelines (USEPA 2008).

<sup>4</sup> ENVIRON. 2014. *PCB Inspection and Sampling Report for Malibu High School and Juan Cabrillo Elementary School*. December. Available online: <http://www.smmusd.org/PublicNotices/EnvDocs/PCBInspectionSamplingReport.pdf>

### **Preliminary<sup>3</sup> Air Sampling Results from Winter Sampling Activities:**

- For all 31 rooms tested,<sup>5</sup> PCBs were not detected at concentrations above the specified reporting limit.<sup>6</sup> The specified detection limits are well below the USEPA Public Health Levels for PCBs in School Indoor Air<sup>7</sup> recommended by USEPA Region IX in its October 31, 2014 letter.
  - This is consistent with June through August 2014 results where all but one pre-cleaning air sample result<sup>8</sup> were below the USEPA recommended thresholds.
  - In Room 19, originally only wipe samples were collected, however, after re-cleaning (see below) ENVIRON recommended also collecting an air sample to confirm if air results were below the USEPA thresholds.

### **Preliminary<sup>3</sup> Surface Wipe Sampling Results from Winter Sampling Activities:**

- During the initial round of testing for all 32 rooms tested, PCBs were not detected at concentrations above the specified reporting limit<sup>9</sup> in 91 percent (%) of the samples (177 out of 194 samples taken, including replicate and duplicate samples).
- For the detections, all were below USEPA Region IX's no-further action threshold value of 1  $\mu\text{g}/100\text{cm}^2$  except for three results in two rooms. Thus, for 98% (191 out of 194) of wipe samples, results were either below detection limits or below USEPA's no-further-action threshold of 1  $\mu\text{g}/100\text{cm}^2$ .
- The three sample results that were above 1  $\mu\text{g}/100\text{cm}^2$  were all below the threshold previously used at MHS as well as the threshold used by New York City Schools<sup>4</sup> of 10  $\mu\text{g}/100\text{cm}^2$ : MHS Building J (700, Old Gymnasium) Room 722 with one sample at 1.6  $\mu\text{g}/100\text{cm}^2$  and JCES Building F Room 19 with a primary and duplicate sample at 2.8 and 3.9  $\mu\text{g}/100\text{cm}^2$ , respectively.
  - For these two rooms, ENVIRON evaluated the 95% Upper Confidence Limit (UCL) of all the wipe samples taken in each room for comparison to USEPA Region IX's no-further action threshold as per USEPA's guidance (October 31, 2014 letter):
    - For MHS Building J (700, Old Gymnasium) Room 722, the 95% UCL is approximately 1  $\mu\text{g}/100\text{cm}^2$ ; thus at USEPA Region IX's threshold.
    - For JCES Building F Room 19, the 95% UCL is approximately 2.7  $\mu\text{g}/100\text{cm}^2$ ; thus above USEPA Region IX's threshold.
- Given these results, additional cleaning was conducted by District staff at JCES Building F Room 19 per the USEPA approved protocols<sup>1,2</sup> for MHS and JCES. As a conservative measure, the District also performed additional cleaning in MHS Building J (700, Old Gymnasium) Room 722.
  - On January 4, 2015, JCES Building F Room 19 was re-cleaned and re-sampled. Nine surface wipe samples, including duplicates and replicates, were collected. Of the nine samples, four surface wipe sample results were above the 1  $\mu\text{g}/100\text{cm}^2$  threshold

<sup>5</sup> Note that sampling of 10 rooms was inadvertently performed with lights off. These rooms subsequently were retested with the lights on and all results remained non-detect for PCBs.

<sup>6</sup> The laboratory reporting limit for the samples in ranges from 66  $\text{ng}/\text{m}^3$  to 70  $\text{ng}/\text{m}^3$ .

<sup>7</sup> USEPA. 2012. Public Health Levels for PCBs in Indoor School Air. November. Available online: <http://www.epa.gov/pcbsincaulk/maxconcentrations.htm>

<sup>8</sup> This one result was in a room where orchestra risers (building materials) were removed just prior to the start of ENVIRON's June through August 2014 investigation even though District Facility's staff had requested that the school and parents not remove these building materials until after the planned summer investigation. It is likely that this activity impacted the results seen in this room as the riser removal resulted in damage to surrounding building materials. Thus, this finding is not typical of conditions in any other rooms at MHS or JCES.

<sup>9</sup> The laboratory reporting limit is 0.1  $\mu\text{g}/100\text{cm}^2$ , which is well below USEPA Region IX's no-further action threshold value for MHS.

previously used at MHS; however, all were below the threshold used by New York City Schools<sup>4</sup> of 10 µg/100cm<sup>2</sup>.

- On January 11, 2015, after a second re-cleaning of JCES Room 19, ENVIRON collected nine additional surface wipe samples in JCES Building F Room 19; all nine sample results (including replicates and duplicates) were less than 1 µg/100cm<sup>2</sup>.
  - ENVIRON collected an air sample in this room on January 11-12, 2015 (after re-cleaning); PCBs were not detected at concentrations above the specified reporting limit.<sup>10</sup>
- Based on these results, conclusions are as follows:
    - Based on the June through August 2014 results, as well as the winter results, re-cleaning typically results in surface wipe sample results that are below USEPA Region IX's threshold.
    - No further testing is recommended for MHS Building J (700, Old Gymnasium) Room 722 or JCES Building F Room 19 for the winter sampling event.
    - ENVIRON will prepare a final summary report once validated data are available that will address sampling results and recommend any further actions as per USEPA Region IX's approval of the plan for MHS and JCES.<sup>2</sup>

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<sup>10</sup> The laboratory reporting limit for the samples was 70 ng/m<sup>3</sup>.