Message

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**Sent**: 9/14/2016 2:47:35 AM
**To**: Leo Brausch [Lbrausch@brauschenv.com]
**CC**: Wilson, Patrick [Wilson.Patrick@epa.gov]; Cepko, Russ P [Russ.Cepko@cbs.com]; Rykaczewski, Dave A. [dave.rykaczewski@wspgroup.com]; Romano, Amy M. [amy.romano@wspgroup.com]; Rob Neal [rob.neal@hagerpacific.com]; Diana Olson [diana.olson@hagerpacific.com]
**BCC**: Armann, Steve [Armann.Steve@epa.gov]
**Subject**: TSCA PCBs: CBS / Former Westinghouse, Rancho Dominguez - EPA Comments: EPCs and PCB Screening Criteria and Cleanup Levels

Hello Leo:

Thank you for proposing exposure point concentrations and risk-based screening and cleanup levels for PCBs at the former Westinghouse warehouse at Rancho Dominguez, Compton, California. Cleanup of PCBs at this site is subject to requirements in the PCB regulations at 40 CFR 761 implementing the Toxic Substances Control Act.

Below are EPA's comments on the EPC calculations and cleanup levels proposed by CBS and Hager Pacific (the Parties) for cleanup of PCBs in the interior of the former Westinghouse warehouse building. The comments are based on my review and the review by Dr. Patrick Wilson of the (1) EPC calculations and risk-based cleanup levels proposed for concrete and non-porous surfaces, (2) criteria to evaluate indoor air results, and (3) information provided in Enclosure A of CBS' letter to support these key elements of the future PCB cleanup plan. Please call me as soon as you are able to discuss issues or concerns that you may have on the comments and modifications provided below of the Parties proposal. After September 15, Dr. Wilson will not be available for about two weeks.

I am completing my review of the draft outline application for the PCB cleanup application the Parties will submit in the future for EPA approval under 40 CFR 761.61(c). I will send those comments to you during the week of September 19 or sooner, if possible.

**EPA Comments and Modifications of Proposed**
**EPC Calculations, Risk-Based Screening Criteria, and Risk-Based Cleanup Levels**

1. **Screening criteria for PCBs in indoor air, porous, and non-porous surfaces.** We have a different opinion on the screening criteria applied to all these media. While EPA uses a lifetime cancer risk range of $1 \times 10^{-6}$ to $1 \times 10^{-4}$, this range does not account for non-cancer effects from exposure to PCBs. Non-cancer effects must be reflected in the choice of a screening criteria. EPA has developed a non-cancer reference dose for PCBs. The reference dose of $2.0 \times 10^{-5}$ mg/kg-day from PCB Aroclor 1254 should be used to derive risk-based, non-cancer thresholds for PCBs. Taking into consideration the PCB non-cancer reference dose, the screening criteria for all media should fall within the $1 \times 10^{-6}$ to $1 \times 10^{-5}$ carcinogenic risk range to ensure protection of human health for both cancer and non-cancer health effects.

   Enclosure A states in page 3 under "Equations and Assumptions to Derive Site-Specific RBCLs" that: "EPA's IRIS database only includes a cancer toxicity value for PCBs. A non-cancer toxicity value for PCBs has not been estimated at this time (EPA 2016b)." This statement is partially correct, EPA has developed and included in IRIS a non-cancer reference dose for PCB Aroclor 1254 that should have been mentioned in Enclosure A and used in calculating site-specific risk-based PCB cleanup levels for the site.

2. **Screening level for non-porous surfaces.** The Parties have proposed the 10 ug/100 cm sq surface concentration for unrestricted use of non-porous surfaces in 40 CFR 761.79(b)(3)(i)(A) as the screening criteria and cleanup level for high and low contact surfaces. However, the 10 ug/100 cm sq regulatory level is applicable to surfaces previously in contact with liquid PCBs and not dust or coatings such as paint.

   Please clarify the PCB source(s) that impacted non-porous surfaces and if such surfaces are coated with paint that contains PCBs. If non-porous surfaces are coated with paint that contains PCBs, was the paint tested to determine the PCB levels?

3. **Calculation of risk-based cleanup level for PCBs in concrete.** We do not agree with the calculation of the site-specific risk-based PCB cleanup level for concrete. Such calculation does not account for contributions of PCBs in porous surfaces to the air pathway and does not consider the non-cancer reference dose for PCBs currently available in IRIS.

4. **Calculation of exposure point concentrations (EPCs) for indoor air and surface wipes.** We agree with the calculated EPC for PCBs in indoor air of 0.088 ug/cubic meter. We agree with the calculated EPC for PCBs on non-porous surfaces of 1.2 and 1.4 ug/100 cm sq for high and low frequency of contact areas, respectively. We do not agree with the screening criteria. See Comment #1 above.

5. **Calculation of exposure point concentration (EPC) for PCBs in porous surfaces (e.g., concrete).** We agree with the EPCs calculated for porous surfaces but not with the site-specific risk-based cleanup level calculated and proposed for concrete. Refer to Comment #1 above.

6. **EPA modifications to proposed screening criteria and site-specific risk-based PCB cleanup levels.** The table below provides EPA's revised screening criteria and risk-based cleanup levels for the former Westinghouse warehouse building.

| **Media and Surfaces** | **Proposed EPC** | **Proposed Screening Criteria and Site-Specific PCB Cleanup Level** | **EPA Modified Screening Criteria and Risk-Based PCB Cleanup Levels** |
|---|---|---|---|
| **Indoor air samples, ug/m$^3$** | 0.088 | 0.021 – 2.1 | 0.021 – 0.21 |
| **Wipes, non-porous surfaces, ug/100 cm sq**<br>1) High frequency contact<br>2) Low frequency contact | <br>1.2<br>1.4 | <br>10<br>10 | <br>1 to 5<br>5 to 10 |
| **Bulk samples, porous surfaces, mg/kg***<br>1) Transformer pit floor and walls and Northeast loading dock walls<br>2) Building walls, including Office, Break Room, and Loading Dock<br>3) Warehouse Floor North of Grid Line N220 and Mezzanine Area<br>4) Warehouse Floor South of Grid Line N220 and Mezzanine Area | <br>1,800<br>2.4<br>46<br>8.5 | * 0.94 to 94<br>*Proposed risk-based cleanup level = 18 | * 0.94 to 9.4<br>* Revised risk-based cleanup level = 9.4 |
| **Bulk Dust samples, HVAC system in Western Office Area, mg/kg** | 3.9<br>not an EPC, based on highest of 2 bulk dust sample | 0.94 to 94 | 0.94 to 9.4<br>Revised cleanup level = 0.94 |

Please call or email me if you have any questions concerning EPA's comments on the proposed EPCs, screening levels, and risk-based cleanup levels and EPA's modifications of the proposed PCB screening and cleanup levels.

Thank you for your courtesies.

Best,
Carmen

*Carmen D. Santos*

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*"Think left and think right and think low and think high. Oh, the thinks you can think up if only you try!"* Dr. Seuss

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