

**UNITED STATES ENVIRONMENTAL PROTECTION AGENCY**

REGION 5

77 WEST JACKSON BOULEVARD

CHICAGO, IL 60604-3590

April 8, 2020

Mr. Russell Cepko

Vice President, Environmental Projects

CBS Corporation

20 Stanwix Street

Pittsburgh, PA 15222

RE: Review of Post-Remediation Fish Sampling Data Analysis Report

The United States Environmental Protection Agency (EPA) has completed its review of the Anchor QEA Report on the Post-Remediation Fish Sampling Data Analysis Report, developed for CBS Corporation. In the report, QEA Anchor completed a statistical analysis showing that the polychlorinated biphenyl (PCB) target fish tissue concentrations to protect ecological and human health receptors was met. The PCB target levels were described in the July 2009 Consent Decree Amendment and the Table below lists the PCB target fish tissue concentrations at the specific location:

|  |
| --- |
| **Target PCB Concentration to Protect Ecological Receptors** |
| **Sampling Location** | **Target Mean PCB Concentration in Whole Fish****Parts Per Million** |
| Location B – lower reach of Conard’s Branch above Vernal Pike Bridge | 2.3 |
| Location D – Richland Creek at the Vernal Pike Bridge | 0.9 |
| **Target PCB Concentration to Protect Human Receptors** |
| **Sampling Location** | **Target Mean PCB Concentration in Fillets****Parts Per Million** |
| Location F – Richland Creek at State Route 43 Bridge in Owen County | 0.2 |

In EPA’s review, although it does not change the conclusions, the t-statistic values presented in Table 7 do match the statistic obtained from applying the formulas listed within the report. The t-test statistic should be calculated as:

$${\left(Mean-Target\right)}/{s\_{\overbar{z}}}$$

For Location B, that leads to (1.9−2.3) / 0.2 = −2.00, and for Location D, that leads to (0.24−0.9) / 0.05 = −13.28. In Table 7, the t-statistics are 2.8 for Location B and 18.8 for Location D. The different t-statistics lead to different p-values, but as already mentioned, do not change the report’s conclusions that the fish tissue PCB target concentrations have been met.

For location F, Table 7 provides summary statistics (mean, variance, and standard error) for the unlogged data, but the hypothesis test is performed on the logged data, following the rejection of normality for that location. Logging the data then leads to a t-statistics of -7.56. As with the other locations, this t-statistic leads to a different p-value than the one provided in Table 7 but does not change the report’s conclusion. The discrepancies in the t-statistics and p-values should be explained by Anchor QEA, LLC or corrected.

Based on EPA’s review of the Post-Remediation Fish Sampling Data Analysis Report, CBS has proven with 95% confidence that the PCB mean concentration in fish is less than the target concentration. Therefore, EPA is satisfied that CBS has statistically proven that the PCB mean concentration in fish is below the CD-specified targets by a statistically significant margin at all three sampling locations and the remedy reopener clause will not need to be implemented.

Thank you for providing a thorough analysis of the fish tissue data and if you have any questions, feel free to contact me at 312-886-7278.

Sincerely,

Via email: J. Fliss, IDEM

 James Hall, CBU

 Simeon Baker, Monroe County

 J. Warren, DOJ

 J. Cahn, ORC