



## **By Electronic and Regular Mail**

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### **Recommendations Re: DEC Standard Fillet versus Rib-Out Analyses**

Under a Federal Court Consent Order, General Electric (GE) submitted its annual Data Summary Reports from 2005 through 2013 for the Hudson River PCBs Superfund Site to the U.S. Environmental Protection Agency (EPA) and the State of New York (NYS). These reports misidentified the methods GE's subcontractor laboratory, NEA /Pace Analytical, used to analyze the PCB levels in fish for several years.

The methods used by NEA/Pace Analytical, deviated from those approved by the EPA and resulted in systematic under-reporting of PCB levels in Hudson River fish from at least 2007-2013.<sup>1</sup>

These data are part of a long-term Hudson River fish monitoring record used by EPA to assess long-term trends and the effectiveness of the remedy, by NYS to determine fish advisories that protect public health, and by the trustees to assess past and future injury for which restoration will be sought.

As suggested by EPA, the federal Trustees evaluated whether analysis of DEC standard fillet data vs rib-out data could yield correction factors without conducting a supplemental study as we had suggested earlier. Our analysis indicates there is too much variability in the existing datasets to reliably detect the magnitude of low bias in the rib-out data, by species. We do not know if the high variability observed is due to differences in processing, sampling locations, analytic laboratory, natural variability, or other confounding factors. We also support NYS's request that EPA analyze the methodology to pinpoint the sources of variability.

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<sup>1</sup> Note that fish fillets for other USEPA Region 2 Superfund sites in NYS that used the same laboratory at this time (e.g., Grasse River, Lake Onondaga, Newtown Creek, perhaps others) were similarly analyzed without the rib cage, although NYS has required Standard Fillets since 1977.

Given the artificially low-bias in several years of fish PCB data from this dataset, the Trustees recommend that:

- EPA prepare and release a peer-reviewed data analysis and interpretation technical report of the 2014 black bass DEC standard fillet vs rib-out study that they had GE conduct; the Trustees can then cite this in our Natural Resource Damage Assessment (NRDA) documents.
- EPA require GE to conduct an additional comparative study to provide data on the differences in wet weight and lipid-normalized PCBs between DEC standard fillet vs rib-out fillets in up to seven additional fish species that EPA monitors at this site.

The species requested by the Trustees for inclusion in this study are already being sampled from the Upper (River Sections 1, 2, 3) and/or Lower Hudson (Albany/Troy, Catskill, Tappan Zee) as part of the Remedial Action Monitoring Plan (RAMP) and are: perch (white and yellow), bullhead (brown and yellow), catfish (white and channel), and striped bass. The anticipated number of fish that would be included in the comparative study is based on the targeted number for the RAMP, less reference fish from the Feeder Dam pool: 60 striped bass, 110 perch, and 125 ictalurids (bullheads and catfish). The 2016 fish collections should provide adequate sample size for a DEC standard fillet vs rib-out study. For comparison, the 2014 black bass special study analyzed 60 largemouth and 90 smallmouth bass. This proposed study would add approximately 295 PCB analyses of the rib-out fillet to the on-going 2016 monitoring effort, where the DEC standard fillet will be analyzed as part of the RAMP.

The proposed study will allow for the potential development of species-specific correction factors that can be used to correct the historic Hudson River fish database (and perhaps the data from other sites<sup>1</sup>). These corrections are recommended to support the NRDA injury assessment and restoration planning effort because they would:

- Allow Trustees to improve evaluation of modeling of time to achieve fish triggers set forth in the ROD (0.05, 0.2, 0.4 ppm PCBs) to support injury determinations;
- Provide data to reduce uncertainty in fish PCBs during pre-dredging baseline (2007-2008) and dredging years (2009 and 2011-2015).

Finally, the Trustees note that the additional study and a data interpretation report are necessary to correct the historical data record and are relevant to EPA's Five Year Review.

Sincerely,



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