Statement before the Peer Review Panel, 18 February 2010

Wayne Richter
Division of Fish, Wildlife and Marine Resources
New York State Department of Environmental Conservation
625 Broadway
Albany, New York 12233-4756

The following is a preliminary reconstruction of my statement made before the Hudson River PCBs Superfund Site Phase 1 Peer Review Panel. The session transcript will contain the actual statement.

My name is Wayne Richter. I'm with the Division of Fish, Wildlife and Marine Resources in the New York State Department of Environmental Conservation.

I want to address PCB levels in fish because I think that GE gave you an incorrect and excessively dire depiction of the effects on fish. Let me remind you that GE said that levels were up significantly in both the Stillwater and Albany areas – I think they said 60% and 40%.

That conclusion was based on comparing 2007 and 2008 data from the Baseline Monitoring Program with 2009 data. My analysis gives a rather different picture. There were actually five years of baseline monitoring data, from 2004 through 2008. GE did not justify why they used only two years of data and ignored 60% of the data.

It turns out that there is a lot of interannual variability. There is evidence of a slight downward trend over these year but that trend is very weak relative to interannual variability.

I looked at both forage fish and pumpkinseeds in each of the four sections: Thompson Island, the combined Northumberland – Fort Miller pools, Stillwater and Albany. The salient feature of the data is high variability and it wasn't possible to fit a good statistical regression model to the five years of baseline data. In every case, the data from one or two years was predominantly on one side of the fitted regression line. The data can't even predict themselves well. By choosing just the last two years, GE is effectively overfitting a model to the data. This is bad statistical practice and leads to bad conclusions.

Looking at the full five years of baseline data, our analysis showed that fish concentrations increased in the Thompson Island pool and the Northumberland – Fort Miller section by about 2.5 and 1.5 times, respectively. In contrast, there was no significant change in the Stillwater pool or at Albany. The changes in means in the two downstream sections were actually very small.

The other question you need to ask is, "Can I reliably say that the change was due to dredging?" To do this, we need to look at how well the 2009 data fit within the variable pattern of the 2004 through 2008 data. At Thompson Island, the fish PCB levels in 2009 were well outside the range seen in the previous five years. Here, I think the answer is yes. Dredging certainly affected local levels at the Thompson Island pool. For the Northumberland – Fort Miller area, the 2009 levels are near the upper end of the range of the previous five years so a conclusion about an effect being due to dredging is possible. At Stillwater and at Albany, the 2009 values are well within the range of values of the preceding five years so it's very difficult to conclude the dredging had any effect.

There is a fifth monitoring station, at the Feeder Dam upstream of GE's plants. This was sampled to get background levels of PCBs in the fish. I found that the median PCB level in the forage fish was significantly higher in 2009 than during the five year baseline period. This difference cannot, of course, be attributed to dredging and suggests care in determining cause and effect.

The conclusion: Dredging certainly affected fish locally, but the data provide no support to the idea that dredging had an effect on PCB levels in fish more than a few miles downstream.