

## **Clarifying Comment**

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I am providing a clarifying comment based on the CASAC panel discussion yesterday and an exchange with EPA staff.

During the May 28, 2014 CASAC teleconference, Dr. Miller raised a question about the additional errors that we found in the corrected risk tables of the HREA. I heard Dr. Hubbell respond that the error we reported occurred in only one column of one table and was the result of EPA mistakenly using the 12.5<sup>th</sup> percentile value instead of the appropriate 2.5<sup>th</sup> percentile value for the lower bound of the risk range.

In fact, my comments noted errors in two tables, and the errors occur in every entry in both tables:

1. Table 7-12 provides the wrong lower bound in column one and that error is propagated into the remaining 4 columns' error bars.
2. Table 7C-1 provides the wrong lower bound in every one of its 9 columns and for every row.

Regardless of the reasons for the error, they are important errors because they change the interpretation of the results – particularly in Table 7C-1. In Table 7C-1 the error causes risk estimates to appear to be statistically significant when they are not. That is, the lower bounds should be negative but the table shows them to be positive for 4 of the cities in that table. And the degree of insignificance in 4 other cities is made to appear far more marginal than is the case.

Additionally, it appears that the entry in Table 7C-1 for New York City under 65 ppb should be 1300 while EPA's table shows it to be 1200.

It is also important that we only happened upon these errors because I was using those two tables for my comments. NERA did not replicate or otherwise check every one of EPA's revised tables. There could be more errors in the many tables that we did not attempt to check. EPA should take more time to check their tables to make sure they are correct.