Policy Assessment
for the Review of the Ozone National Ambient Air Quality Standards

[EPA-452/R-14-006]
August 2014

Errata (July 22, 2015)

1. Page *iv* – The list of appendices should be augmented as follows:

Appendix 6A. Calculation of Approximate Equivalent 12-hr SUM06 and 12-hr W126 .. 6A-1

2. Page *iv* and 5B-1 Appendix 5B, Title – The title of this appendix should be corrected as follows,"CLASS I AREAS IN COUNTIES MEETING CURRENT STANDARD AND AT OR ABOVE 15 PPM-HRS."
3. Page 5-27, line 9; page 5-28, line 2; page 5-79, line 18; 5-80, line 14 – The phrase "Class I areas" (which is in reference to information in Table 5-2) should be revised to "counties with Class I areas"
4. Page 5-28 and page *x*, Table 5-2 – The title of this table should be corrected as follows, for accuracy and consistency with Appendix 5B, "O_3 concentrations in Class I area containing counties that met the current standard and where three-year average W126 index value was at or above 15 ppm-hrs (1998-2012)."
5. Page 5-64, 2nd sentence – The ending phrase of this sentence should be corrected to the following "where the slope of the cumulative proportion line changes for FHM biosites."
6. Page 5-79, line 19 – The phrase "county" should be inserted prior to "monitor sites" (which is in reference to information in Table 5-2).
7. Appendix 5B, Table 5B-1 – The title of this table should be corrected as follows, "Examples of Counties where Recent 3-Year O_3 concentrations were at or Below 75 ppb and 3-year Average W126 Index Values were at or Above 15 ppm-hrs."
8. Appendix 6A. – This appendix, which is a duplicate of the corresponding appendix in the second draft of this document was inadvertently omitted from the final document. It is provided on the following page.

APPENDIX 6A

Calculation of Approximate Equivalent 12-hr SUM06 and 12-hr W126

SOURCE: *2007 Staff Paper, Appendix 7B (U.S. EPA, 2007).*

Despite various metrics reported in the vegetation effects literature, there is no standard method for calculating equivalent levels between metrics. The maximum 3-month 12-hr SUM06 of 25 ppm-hr secondary standard that was proposed in the last review (62 FR 38877) was based on a yield loss prevention of approximately 10% in 50% of crop cases studied in the National Crop Loss Analysis Network (NCLAN) experiments. For consistency, staff judged it appropriate to use the NCLAN experiments to derive equivalents between the 12-hr SUM06 and W126. For example, below are the 12-hr SUM06 and W126 NCLAN equations to protect 50% of crop cases from a specified percent yield loss (Lee and Hogsett 1996):

Metric	Weibull Equation
12-hr SUM06	Predicted Relative Yield Loss = 1- exp(-[SUM06/87.42]^1.82)
12-hr W126	Predicted Relative Yield Loss = 1- exp(-[W126/96.05]^1.48)

In the first equation, solving for a SUM06 of 25 ppm-hr equals a predicted relative yield loss of 10%. Solving the second equation for a 10% yield loss equals a W126 of 21 ppmhr. Thus, staff considers a 12-hr SUM06 of 25 ppm-hr and a 12-hr W126 of 21 ppm-hr approximately equivalent.

References

Lee, E. H.; Hogsett, W. E. (1996) Methodology for calculating inputs for ozone secondary standard benefits analysis: part II. Report prepared for Office of Air Quality Planning and Standards, Air Quality Strategies and Standards Division, U.S. Environmental Protection Agency, Research Triangle Park, N.C., March.

U.S. EPA (U.S. Environmental Protection Agency). (2007). Review of the national ambient air quality standards for ozone: Policy assessment of scientific and technical information: OAQPS staff paper [EPA Report]. (EPA/452/R-07/003). Research Triangle Park, NC. http://www.epa.gov/ttn/naaqs/standards/ozone/data/2007_01_ozone_staff_paper