

this program can be found at <http://www.epa.gov/reva>.

ReVA is a tool for integrating research on human and environmental health, ecorestoration, landscape analysis, regional exposure and process modeling, problem formulation, and ecological risk guidelines. ReVA develops landscape models that predict probability of impairment for individual watersheds given land use and biophysical characteristics. ReVA is able to explore hierarchical modeling (broad scale, landscape models combined with fine-scale watershed models) and grouping of watersheds to assess benefits associated with proposed alternative effluent standards against a backdrop of existing non-point source pollution and naturally occurring conditions that influence watershed vulnerability. EPA may consider using the output from the ReVA program as an additional source of information characterizing the environmental impacts and potential benefits of MPP facilities. EPA solicits comment on the use of a regional vulnerability assessment for the MPP environmental assessment.

VIII. Possible Changes to the Proposed Limitations and Standards

This section describes EPA's plans for revising the proposed limitations and standards before the final rule. The NODA record contains episode-level summary statistics, including the episode long-term averages and episode variability factors. (In this context, "episode" refers to either an EPA sampling episode data set or an industry-submitted self-monitoring data set.) After EPA completes its statistical and engineering review of the episode summary statistics and other available information, it will select episode data sets that reflect the appropriate performance capabilities of the model technologies for each option. EPA then will use these episode data sets to calculate the option long-term average as the median of the selected episode long-term averages, and the option variability factor as the mean of the selected episode variability factors. The final limitation/standard will be calculated as the product of the option long-term average and option variability factor, as explained in Sections 13.8 and 13.9 of the proposal technical development document.

Because EPA has not performed its review of the episode data sets, the NODA record does not include option long-term averages, option variability factors, and limitations/standards. Instead, the following discussion provides an overview of EPA's plans for

reviewing the episode data sets and revising the proposed limitations and standards. The first subsection, VIII.A, discusses the revisions to the statistical methodology used to develop the limitations/standards and loadings. The second subsection, VIII.B, describes EPA's consideration of comments on the assumed monitoring frequency used to develop the proposed limitations and standards (and for deriving costs for complying with the proposed rule). The third subsection, VIII.C, describes EPA's plans for reviewing the data that will be used to develop the final limitations and standards. The fourth subsection, VIII.D, describes EPA's planned review of the variability factors that EPA expects to use to derive the final limitations and standards. The fifth subsection, VIII.E, describes EPA's plans for assessing the achievability of the limitations and standards it is considering promulgating. The final subsection, VIII.F, describes EPA's preliminary identification of errors in 40 CFR part 432 and the recodification included in the proposed rule.

A. Revision of Statistical Methodology for Long-Term Averages and Loadings

In the proposal, EPA used the data from 11 MPP sampling episodes to develop the proposed long-term average effluent concentrations, variability factors, limitations/standards, and loadings. Since then, EPA has completed three additional MPP sampling episodes which operate some of the technologies considered as a basis of the limitations and standards. Two of the additional sampling episodes were at facilities that had been sampled prior to proposal. EPA also has received self-monitoring data from 16 of the 24 MPP facilities from which EPA requested data, as discussed in Section II.B above. The following two sections briefly discuss EPA's methodology at proposal and the revised methodology EPA is considering for calculating limitations/standards and the loadings associated with the various technology options.

1. Estimation of Daily Values and Long-Term Averages in the Proposal

For the proposal, to the extent possible with available data, EPA calculated the limitations/standards and technology option loadings using the measured daily effluent concentrations at the sampled facilities that were chosen as the basis for each technology option. However, when effluent data were unavailable from a particular model technology, EPA estimated the daily effluent concentrations by combining influent data with removal fractions from facilities with

components of the model technology. When influent data were not available, EPA estimated the daily effluent concentrations using a facility pollutant mass balance between the final effluents from wastewaters from different processes (e.g., first processing, rendering), as explained in Section 9.2.2 of the proposal development document. As explained in Section 13 of the proposal development document, EPA also adjusted several estimated concentration values upward to be more consistent with documented performance values for the technology or actual effluent concentrations.

To derive the proposed limitations and standards, EPA then modeled the combined measured and estimated effluent data using the modified delta-lognormal distribution to estimate the long-term averages and variability factors. After reviewing the estimated long-term averages used in calculating limitations, EPA determined that substitutions were necessary and appropriate. Sections 9 and 13 of the proposal development document describe the substitutions.

2. Revised Approach

EPA has revised its data selection to incorporate the new data from sampling episodes and DMRs (*i.e.*, individual weekly/daily data points, not summary data). As a consequence of the new data and the comments that it received, EPA intends to use only measured effluent values rather than estimated values in developing the final limitations/standards and loadings. DCNs 165011 and 165140 provides listing of the data that EPA is considering using to calculate the final limitations and standards. For today's NODA, because of time constraints, EPA has used the arithmetic average of the data in calculating the target effluent concentrations used for developing costs and loadings. For the final rule, EPA intends to use the modified delta-lognormal distribution to model the data, and thus, the long term average values will be similar but somewhat different than the target effluent concentrations presented today. Also, EPA plans to use the daily/weekly data, rather than the summary DMR data used today. This delta-lognormal distribution was used for the proposal and is described in Appendix G of the proposal development document. See Section VIII.D for EPA's plan for reviewing variability factors to be used for the final rule.

For the two facilities that EPA sampled twice (*i.e.*, once prior to proposal and once after proposal), EPA's initial assessment is that the post-