

Quad Cities FHRR-RAI 12-Document Information

1- Appendix F in Attachment 2 of QDC-0085-S-1989

This document contains the storm analysis files used in the development of PMP values for the Quad Cities calculation. For each storm listed F.1 (All-Season storms) and Table F.2 (Cool-Season storms) the storm spreadsheet, inflow vector map, storm total isohyetal, storm center mass curve, and depth-area-duration table are included. The inflow map displays the storm center location and the storm representative dew point location on one line with a second line showing the same inflow vector originating from the Quad Cities location of interest. These locations match the latitude longitude values provided in the upper left table of the storm spreadsheet. This information can be used with dew point 100-year recurrence interval climatology data at the appropriate storm duration (i.e. 6-, 12-, or 24-hours) to determine the in-place climatological maximization and transposition climatological maximum dew point values. These data are used in the calculation of the in-place maximization and moisture transposition calculations. Example of the in-place maximization calculation is provided in HMR 51 Section 2.3.5 and example of the moisture transposition calculation is provided in HMR 51 Section 2.4.6.

2-Nebraska Statewide PMP Report

The Nebraska statewide study was first reviewed by a state dam safety board consisting of Dr. Mark Anderson-Meteorology professor at University of Nebraska, Dr. Barry Keim-State Climatologist for Louisiana and professor at LSU, and Pat Diederich chief of dam safety for Nebraska DNR. The Federal Energy Regulatory Commission then came in and reviewed the Nebraska study with a Board of Consultants, including Mel Schaefer and George Taylor and accepted it for use. A description of the dew point climatology background, reason for development, and development process are included in Section 6, Section 8.1.1 and Appendix C of the Nebraska statewide Final Report and Section 4.1.2. The Arizona statewide study including an independent Board consisting of D. Barry Keim, Dr. George Sabol-hydrologist with Stantec, Dr. Nancy Selover-Arizona State climatologist and ASU professor, and Dr. Mike Johnson head of Arizona dam safety. The description of the dew point climatology development is also included in the Arizona Statewide PMP final report Section 4.1.2, Appendix A, and Appendix B.

3-Arizona Statewide PMP Report

The Arizona statewide study including an independent Board consisting of D. Barry Keim, Dr. George Sabol-hydrologist with Stantec, Dr. Nancy Selover-Arizona State climatologist and ASU professor, and Dr. Mike Johnson head of Arizona dam safety. The description of the dew point climatology development is also included in the Arizona Statewide PMP final report Section 4.1.2, Appendix A, and Appendix B.

4-Initial Long List of Storms

This Excel files contains all the storm events which were initially investigated for use in PMP development for Quad Cities. Storms from this list were analyzed further to determine which would be important for final PMP calculations. These storm comprised the short storm list, as presented in Appendix F of Attachment 2 of QDC-0085-S-1989.