Additional QC Activities Performed for Updated Deliverables

Cadmus staff performed quality control checks on the revised RBSA II deliverables data, tables, reports, and code, as summarized in Table 1.

Table 1. QC Deliverables and Review Staff

Deliverable	Review Staff
Data/Database/UA Calculations	Andrew Rietz Shannon Donahue
Reports – Main Body	Andrew Rietz Steve Cofer Karen Horkitz
Reports – Appendix Tables	Andrew Rietz Steve Cofer Karen Horkitz
R Code	Jennifer Huckett Andrew Rietz

QC Process, by Deliverable

The following summarize the process used to confirm accuracy of the RBSA II updated deliverables.

Tables

- Cadmus performed the following checks for tables that were expected to change due to GPM calibration, revised UA methodology, and known data inconsistencies:

    o Confirmed sample size is correct

    o Reviewed results for reasonableness

    o Compared to last version of tables generated for NEEA (Updated Report: April 27, 2018) to ensure changes appear correct

    o Tracked the report, table number, table name, and what was updated in the RBSA II Updates Excel file

- Cadmus performed the following checks for the remaining tables:

    o Compared newly generated Appendix A tables to last version of tables generated for NEEA (Updated Report: April 27, 2018)

Reports

- Cadmus performed the following checks for report chapters that were expected to change due to GPM calibration, revised UA methodology, and known data inconsistencies:

  o Reviewed report chapters and updated graphics and text to match Appendix A tables

- Cadmus performed the following checks for the remaining report chapters:

  o Compared newly generated Appendix A tables to all report chapters in the April 27, 2018 version

UA

- R-Values for insulation types

  o Checked values are outlined in the update memo

  o Checked values are applied correctly

  o Checked for any new special cases

- Above grade wall calculations

  o Calculated by hand several cases to ensure calculation was being applied correctly

  o Checked application of framed and masonry wall applications

  o Checked assumptions for special cases including multiple cavity insulation layers

- Ceiling calculations

  o Calculated by hand several cases to ensure calculation was being applied correctly

  o Checked application of enclosed ceiling method and open attic methods

  o Checked assumptions and special cases including adiabatic ceilings

- Foundation and Floor Calculation

  o Checked framed floor u-values, foundation wall u-values and slab f-values

  o Checked applications of buffer spaces such as; floors over garages, floors over unconditioned basements and floors over enclosed crawlspaces

  o Checked assumptions including unknown slab insulation and floor thicknesses

- Window u values

  o Checked window u-value table is used in analysis.

Database

- Compared new database files against the file provided to NEEA on May 17, 2018 to ensure that no inadvertent changes occurred

- Reviewed updated and new columns to ensure data is displayed correctly

Code

- Cadmus reviewed the code to ensure that the tables produced match the tables provided to NEEA on April 27, 2018

- Performed thorough review of calculations for GPM, UA, and insulation tables, which included review of error bounds and insulation R values

- Randomly selected tables to re-create estimates by-hand

- For tables that were updated, compared to database to ensure sample sizes and unit/fixture counts matched