

14-002

The study team of project 14-002 notified the AQRP in September 2015 that they discovered that CMAQ simulations performed for Projects 14-002 and 14-004 utilized incorrect exit velocities of elevated point source emissions. This may result in artificially high free tropospheric concentrations of various species rather than increased values in the boundary layer.

The study team will correct the exit velocities, re-run CMAQ, and re-do the analyses for these projects. CMAQ will be re-run for all modeling domains (36, 12, 4, and 1 km horizontal resolution domains) and evaluated with observations made during the DISCOVER-AQ field campaign. Additional CMAQ simulations will be performed after the updated base case simulations. For Project #14-002, comparisons between the 1 km CMAQ simulation and NASA P-3B observations will be used to update petrochemical emissions within the 1 km domain. The 1 km CMAQ domain will then be re-run utilizing the process analysis tool and the updated petrochemical emissions. These new results will reveal the relative contribution of formaldehyde concentrations from direct emissions and secondary production and be compared with DNPH cartridge measurements.

The AQRP has provided a no cost extension to Project 14-002 through November 30, 2015, to allow time to re-run the models, analyze the data and revise the final report. No additional funds will be made available for the project.

Presentation materials will be updated to reflect the results once the reanalysis is complete.