LAKE MICHIGAN AIR DIRECTORS CONSORTIUM
POSITION DESCRIPTION
Executive Staff: Atmospheric Modeler

The atmospheric modeler on the executive staff of the Lake Michigan Air Directors Consortium (LADCO) is responsible for supporting regional meteorology and air quality modeling.

The primary duties of this position are as follows:

- Conduct, evaluate, and document regional meteorology modeling with WRF to support air pollution policy decisions of the LADCO states
- Coordinate and support the WRF meteorology modeling activities of the LADCO states
- Conduct, evaluate, and document urban to continental scale photochemical grid modeling to support air pollution policy decisions of the LADCO states
- Coordinate and support the CAMx and CMAQ photochemical grid modeling activities of the LADCO states
- Gather, develop, and evaluate regional meteorology model and air quality model input data
- Evaluate, diagnose, and rectify regional meteorology model and air quality model performance issues
- Analyze and document model outputs in the context of air pollution policy decision support
- Track, understand, and communicate emerging national air pollution policy actions
- Write, modify, and maintain pre- and post-processing software for air quality modeling systems and data visualization programs
- Develop and apply software for conducting diagnostic model performance evaluations of meteorology and air quality models
- Work directly with state agency technical staff, EPA regional and national staff, federal land managers, and other MJOs on issues related to air quality modeling
- Prepare technical reports and present modeling results to technical and policy staff

Optional duties may include:

- Support the operation of single source air quality permit modeling applications for the LADCO states
- Conduct, evaluate, and document global chemical transport modeling to generate boundary conditions for North American photochemical modeling studies

- Develop, evaluate and document downscaling approaches for deriving regional-scale chemical boundary conditions from global chemical transport models

The position requires:

- Master's Degree in Meteorology Environmental Science/Engineering, Chemistry, Physics, Computer Sciences, or a related field
- Experience with Linux computing systems, including hardware and software technology, software compilation; experience with software parallelization cloud computing a plus
- Computer programming experience with Fortran, R, Python, and Linux shell scripting
- Experience with setting up, running, and evaluating WRF; experience with MPAS a plus
- Experience with setting up, running, and evaluating CAMx; experience with CMAQ, WRF-Chem, GEOS-Chem, MOZART, and/or CAM-Chem a plus
- The ability to analyze, synthesize, and communicate modeling results to both modeling and policy staff
- Experience working with and directing teams of other modelers
- Report writing skills and comfort with making public presentations

The position will be located at the LADCO executive office in Rosemont, IL. LADCO offers competitive salary, commensurate with experience, outstanding benefits, and a 403b matching program.

To apply for this position, email a cover letter, CV, and a list of references to LADCO's Executive Director at adelman@ladco.org.