8th Conference on Air Quality Models
Model Development, Acceptance, Implementation

(a) Current Approach - Acceptance criteria (Appendix W)

- 'when a single model is found to perform better than others in a given category it is recommended for application in that category and listed in Appendix A' … if no single model other factors e.g. past use, public familiarity, cost etc.

- requirements for submission

  FORTRAN

  User guide documentation

  Test data set

  Useful to typical users

  Documentation to include comparison with air quality data or with well established techniques

  Available at reasonable cost; not proprietary

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(a) Current Approach

- potential for contradiction, out of date
- developed when few models/alternatives
- internet not developed
- the preferred model gets an unwarranted world status as best model even for applications where it is weaker then others
- preferred model used simply because of this, even for applications where other models are (much) better
- can stifle innovation in US and elsewhere
- undermines support for research in dispersion modelling.

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(b/c) Alternative system

- allow more than one model to be used for given application if more than one passes acceptance criteria (see (e)).

- panel (user community) to review inclusion of new models according to acceptance criteria

(d) Handling different results in regulatory context

- already facing up to these issues with AERMOD, CALPUFF much more complex than ISC. For example AERMOD sensitive to surface parameters (surface roughness, bowen ratio, albedo) and source of met data (obs or model).

- differences illustration of uncertainty in model results.

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(e) Model Developer - acceptance criteria

(f) Basis for determining acceptable model

- relative criteria plus threshold
- all input/output files for model evaluation publicly available

(g) Objective generic test

- statistical
- appraisal of scientific aspects by panel also very important

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