

New Generation Model Status Report

FACA Modeling Working Group

February 13, 2002

NGM Proposal

- Completely new concept
- Emissions on three levels:
micro (intersection), meso (highway link), macro (region)
- On board data emphasis and existing data
- Modal emissions approach
- GHG model developed first,
other pollutants and nonroad to follow

EPA Timeframe

- Comprehensive Plan, June 2002
- Greenhouse Gas Model (Core/National Implementation), Fall 2003
- All Other Pollutants (Core/National Implementation), November 2005.

Survey Population

Survey sent to the MSTRS FACA modeling workgroup 42 members.

There were 13 responses to the survey:

- 5 from States
- 4 from Industries,
- 3 Researchers, and
- 1 Federal Highway Administration

Priority of Model Purpose

- National Inventory Development (82%)
- Policy Evaluation (80%)
- Legislative Analyses (70%)
- Diagnostic Analyses
(Validation, Sensitivity, Uncertainty) (60%)
- Microscale Analyses (55%)
- Interface with transportation models (50%)
- Model Updates and Expansion (40%)
- Interface with Emission Processors (30%)
- International Use (0%)

Concerns We're Working On:

- Timing/schedule and MOBILE 6 support
- GHG developed before other pollutants
- Modal for macro scale applications
- On board data accuracy
- Use of historical FTP bag data
- State data requirement
- Data collection to replace assumptions

Timing and MOBILE

Work Group:

Concerned about getting model done in 3.5 years (Fall, 2005).

If not done, want an updated MOBILE model.

EPA:

Thinks 3.5 years is achievable.

Doesn't want to split resources between NGM and MOBILE.

Development Priority

Work Group:

The criteria pollutant
NGM should be
developed first.

EPA:

Easiest to develop GHG
model first, then other
pollutants.

Modal Applications

(Needed for micro & meso scale applications.)

Work Group:

Concerned that when modal emissions are aggregated to the macro level, uncertainty is increased.

Method has not been proven.

EPA:

Acknowledges concern, but wants to use modal emissions over all scales for consistency.

Emission Rates

Work Group:
The Portable Emissions
Measurement is not a
proven technology.
Further correlation detail
is needed.

EPA:
PEMs will provide real
world results.
EPA will provide
correlation data for
evaluation.

Historical Bag Data

Work Group:

Wants to know how EPA
will use the historical
bag data.

EPA:

Exploring how to use the
bag data with the PEMs
data.

Data Gathering

(Vehicle Fleet and Activity)

Work Group:
States may have
additional data gathering
burden.

EPA:
No more data would be
required than for
MOBILE6.

Engineering Assumptions

Work Group:
Engineering assumptions used in projecting emissions should also be re-evaluated as part of NGM.

EPA:
Engineering assumptions usually established in rulemaking process.
Can change these if data is available.

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