

# Emissions Modeling Survey Results

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# Introduction

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- Created survey on emissions modeling issues and sent to 5 RPOs
- Purpose for assisting in any desired coordination between/among RPOs and EPA.
- Preliminary results of survey included by area of major interest.
- 4 RPOs responded thus far.

# Emissions models being used

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- SMOKE by VISTAS, MANE-VU, CENRAP, and WRAP
- EMS-2002 by MWRPO and MANE-VU as an option.
- OPEM of interest to all RPOs once it is available
- Issue raised of different results produced by SMOKE and EMS-2002 and whether the developers could study/resolve those differences.
- EPA plans to use SMOKE

# AQMs

- CMAQ being used by all RPOs with CB4. Some are considering SAPRC99.
- CAM<sub>x</sub> being used by 4 RPOs
  - MWRPO – primary model most likely
  - VISTAS – for sensitivities
  - Other – have not decided how it will be used.
- MANE-VU also plans to use REMSAD.
- All RPOs seem open to considering whatever models are going to give sound results.
- EPA plans to use CMAQ, CAM<sub>x</sub>, and REMSAD

# Inventory Needs from EPA

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- Universal need of 2002 NEI, version 1 in January 2004 in NIF 3.0 format or SMOKE format.
- Universal interest in Clear Skies and Transport Rule emission inventories and/or control files that will work with 2002 inventory. Includes IPM run results.
- State-submitted data turnaround would be very helpful, but lack of optimism due to EPA's published schedule on version 2.
- 2002 biogenics model-ready inventory before fall of 2004.
- Updated Canadian inventories, including fires
- EGU growth approach

# Tools needs from EPA

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- Final NONROAD model.
- Updates for on-road NH<sub>3</sub> to fix problems (?)
- Growth
  - Revise EGAS – EGAS factors are very out of date from 1996. Pre 9/11 factors.
  - Alternative to EGAS
    - From 2002 to 2010, 2013, 2018
- Converter from NIF3.0 and RPO data-exchange to SMOKE input formats

# Other items identified

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- Might be useful to have some standard visualizations and analyses of emissions across RPOs. This would facilitate checking emissions modeling results using other RPOs' data.
- Is MWRPO running BIOME for national 2002 case that other RPOs can use?

# EPA data development

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- 2002 NEI, version 1 – January 2004 in NIF 3.0 format – unsure date for SMOKE format.
- 2002 and 2001 CEM data in RPO data exchange format and SMOKE formats
- 1999, 2000, and 2001, version 3 NEI in NIF 3.0 format, expected this fall.
- Planned updated 2001 paved roads inventory beyond 2001 NEI version 3
- Wildfire and Rx fire hourly and monthly profiles for area-source processing of these categories.
- County-based transportable fractions for fugitive dust.
- Updated PM<sub>2.5</sub> profiles to be released soon – for key PM categories from 1996 inventory.
- Revised area-to-point files for 2001 airports inventory.

# EPA tool development

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- Updates to NEI QA tool for NIF 3.0
- New NH<sub>3</sub> approach in review at USDA. Draft report available on CD ROM (one copy per RPO)
- Planned EGAS updates
- ORD Windblown dust model
- MIMS spatial allocator (for spatial surrogates)
- Would like a “Blue Skies”-like national database for wildfire and Rx fire inventories.
- Would like a NIF-to-SMOKE and/or NIF-to-RPO data exchange format.
- SMOKE updates to include humidity
- Preliminary database for tracking modeling inventory versions, changes, file names, etc.