

EPA Plans/Projects Involving Projections

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Status of 812 work

- Current approach undergoing Science Advisory Board (SAB) review
 - <http://www.epa.gov/air/sect812/blueprint.html>
- Plans expected to change based on SAB input
- From report:
 - ... ongoing regional studies should either be consistent with the 812 analysis, or any differences should be carefully documented and addressed.
- OAQPS plans to learn from and perhaps use techniques and data from 812 efforts

Summary of 812 projections

- Projection from final 1999 version 3.0
- Use IPM for EGUs
- Use EGAS 4.0 for non-EGU and stationary area
- Update non-EGU and stationary-area controls for 1999 base
- MOBILE6 model, except California will use EMFAC emissions
- NONROAD model
- Use VMT projections from Energy Information Administration (EIA) National Energy Modeling System numbers (from 2003 publication)
- Where relying on previous 1996 projections, update for use with 1999 inventory.
- Additional possible improvements and details described in plan

Ongoing efforts to update EGAS

- OAQPS/AQSSD Innovative Strategies and Analysis Group – considering...
 - Getting updated REMI data
 - Extending past 2020
 - Determine whether more detailed breakout of sectors is available
 - Can spatial variability of projections be improved?

Transport rule future baseline: growth approaches for 2010 and 2015

- EGUs: Latest IPM runs
- Emissions for other categories interpolated between available 2007 and 2020 emission inventories based on 1996 inventories and...
- Non-EGUs: BEA Gross State Product (GSP) projections by 2-digit SIC code & energy efficiency factors for fuel combustion
- Stationary area:
 - Generally, BEA GSP by SCC
 - Other for Rx burning, ag sources, unpaved roads, and livestock.
- Nonroad mobile:
 - seasonal NONROAD model runs to get growth factors that were then applied to 1996 inventory
 - CA separate for diesel
 - BEA GSP data for some not covered by NONROAD
- On-road mobile sources:
 - VMT grown using fractions from OMS (same as Tier 2 modeling)
 - Vehicle type distribution also changed in future
 - MOBILE5b adjusted to MOBILE6 emission factors

Transport rule future baseline: controls included

- Latest IPM runs
- NOx RACT in 1-hr NAA (Except Waiver Areas)
- NOx SIP call (Excluding GA & MO for all point and excluding WI for EGUs)
- Tier-2 tailpipe
- HDD engine standard
- Base year prescribed fires
- Nonroad Rule final proposal
- Large SI and Recreational Engine Rule(s)
- Industrial boiler/process heater MACT

Transport rule future baseline: other adjustments

- Transport fraction for fugitive dust
- Ammonia adjustment factor on livestock (ORD Modeling)

Transport rule future baseline: controls *not* included

- NO_x RACT in 8-hr NAA
- Clear Skies Act
- Utility Mercury MACT
- RICE MACT
- Turbine MACT
- Wildfire
- WRAP Annex

Use of SMOKE for projections

- OAPQS EFIG/AQMG considering using SMOKE to output projected inventory files in SMOKE input formats
- SMOKE can
 - Apply controls
 - Control efficiency, rule effectiveness, rule penetration
 - Cap and/or replace
 - Imitate EMS-HAP controls on toxics (MACT packet)
 - Simple adjustment factor
 - Apply growth and control factors by state/county, SCC, SIC, plant-specific codes, MACT codes, combinations of these
 - Use “master” control files, with switch to turn on/off certain controls
 - Mix and match up to 80 growth and control scenarios to create new “SMOKE-ready” inventory files
 - Apply growth and control factors to stationary area/non-point, on-road (emis & VMT), nonroad, and point sources