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The Risk and Technology Review Process – A Collaborative Approach between the EPA, State/Local Agencies, and Industry.

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The members of the Coalition are: the American Chemistry Council, the American Forest & Paper Association, the American Petroleum Institute, the National Oilseed Processors Association, the National Petrochemical and Refiners Association, the Pharmaceutical Research and Manufacturers of America, and the Portland Cement Association.

This Presentation…

- A Little History
- The NEI Database
- NEI Data Review Process
  - Obstacles
  - Successes
  - Observations
- Moving Forward – 2008 NEI

History

- The EPA's Risk and Technology Review (RTR) is an effort to evaluate risk from air toxics emissions following MACT rules
- As part of this effort, the EPA's national emissions inventory (NEI) underwent a review and correction process
- The revised NEI data is being used as the model input for residual risk determinations
- Industry was given an opportunity to review NEI data in an ANPRM dated March 29, 2007 (60 days for Petroleum Refineries source category)
- First real interaction with regulatory implications that the industry had with NEI database

The NEI Database

- Database of air emissions information on stationary and mobile sources that emit criteria pollutants & VOCs, ammonia, and 188 HAPs
  - State and local HAP inventories
  - Databases related to EPA's MACT programs
  - TRI data
  - Mobile source emissions estimates
  - Stationary non-point source emissions estimates generated using emission factors & activity data.

The NEI Data Review Vision

- A user friendly, web-based correction process
- Facilities that are associated with the MACT category
- Data points associated with the correct MACT category
- Ample time to review 1000s of data points

The NEI Data Review Reality

- Gigantic MS Access database to download from EPA website
  - not widely used by personnel
  - Not easily reviewable by export to Excel
  - Excel has export limit (approx. 68k)
- Out of date facility names due to mergers and acquisitions
- Unfamiliar codes for facility reviewer
  - Standard Industrial Classification (SIC) Codes
  - North American Industry Classification System (NAICS)
  - Source Classification Code (SCC) defaults
- Emissions data from the entire facility and not for individual MACT source category

NEI Data Review Reality

- Shared emission points not necessarily apportioned
- Some emission points are not subject to MACT
- Emissions data included both major and area sources
- Some critical data is flawed
  - wrong latitudes and longitudes
  - incorrect HAP-source category associations
- Limited amount of time for such a grand scale data review

NEI Data Review Focus

- Break out facility specific emission data and circulate to appropriate reviewer
- Focus on location, location, location
  - Used Google Earth to check lat/long points
- Fugitive vs. Point Source Data Corrections
  - Correcting fugitive sources
- Facilities submitted suggested changes to EPA

NEI Data Review - Success

- Improved database due to EPA receptiveness to documented changes
- Significant corrections to improve lat/long and fugitive source data resulted in more accurate risk values
- Increased industry awareness of NEI and EPA's future uses

NEI Data Review - Observations

- Default modeling assumptions not appropriate for certain types of sources (generally overly-conservative)
  - Example- tanks set at 10 ft high (30 ft is more representative).
  - Fugitive emissions should be modeled as area sources, not point sources
- SCC codes are not the appropriate tool for assignment of MACT codes.

NEI Data Review - Observations

- There is no apparent mechanism to update the NEI for revisions to the underlying dataset
- EPA assigns all emissions and HAPs from an emission point to one source category regardless of the other source category process emissions that enter that point.
  - This can result in overestimated emissions and risk from a source category due to association of HAPs from other source categories to the category of interest.

Moving Forward

- Attention to “minor” data is important
  - lat/long, defaults, stack parameters, tank heights, temperatures, etc.
- All underestimate the resources needed to maintain and QA this data
- Data not generated by the facility are probably not collected for the Emission Inventory and are likely not an appropriate representation of actual emissions

Moving Forward

- All information in the database should be accessible to the facility (not just select or summary information)
- Data (including modeling inputs) for major stationary sources should not be annotations or defaults but rather should be direct input from a facility

Moving Forward

- Reengineering of the NEI to accommodate the RTR regulatory process must include:
  - User friendly application for sources to provide source-category-specific emissions data directly to both EPA and states
  - Pilot programs with industries to test new NEI application
  - Opportunities for regulated industries and EPA to work together to determine representative data sets prior to rulemaking process