

The Challenge of Meeting New EPA Data Standards and Information Quality Guidelines in the Development of the 2002 NEI Point Source Data for HAPs

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Introduction of Federal Quality Guidelines and Data Standards

- OMB established information quality guidelines for information disseminated by federal agencies
- EPA responded by developing their Information Quality Guidelines
- EPA's Office of Environmental Information also developed uniform data standards to foster consistency



Challenges to Preparing the NEI

- The new data standards and information quality guidelines will improve the quality of the point source NEI
- Changes are needed in how data are compiled, manipulated, and released to the public
- States will be asked to populate some additional fields



EPA's Information Quality Guidelines Performance Goals

- Disseminated information should adhere to a basic standard of quality
- Principles of information quality should be integrated into each step of EPA's development of information
- Administrative mechanisms for correction should be flexible... and incorporated into EPA's processes



Applicability of Guidelines

- These guidelines apply to all information that EPA disseminates to the public, including the NEI
- EPA must sponsor/initiate the distribution of information AND adopt/endorse it
- They include any communication or representation of knowledge such as facts or data, in any medium or form, including web sites, FTP sites, brochures, data flat files, scientific studies, etc.



Does it Follow Appropriate EPA Policies?

[Pre-dissemination Checklist]

- Is the product subject to EPA peer review policy? This policy covers “major” products as defined in the Science Policy Council Peer Review Handbook
- Does this product use environmental data? If so, the information product must have a Quality Assurance Plan (QAP)
- Did this product conduct an assessment of existing data when used to support agency decisions or other secondary purposes? Is this data of sufficient quality and quantity to meet the objectives of the product?
- Does this product fall under the guidelines of the EPA Risk Characterization Policy Handbook?



Checklist Items that Pertain to NEI

- The 2002 base year NEI will be subject to peer review
- The NEI uses environmental data, must have a Quality Assurance Plan
 - The QAP is part of our Inventory Preparation Plan
 - It is updated as each NEI version is prepared for review
 - A rigorous process of data review and standardization is implemented



Is the Information Influential?

[Checklist Continued]

- Dissemination of information will have clear and substantial impact
- Influential information held to higher quality standard
- “Influential” products must be capable of being reproduced by a qualified third party
- The 2002 NEI will be subject to peer review
- 1999 NEI will not be peer reviewed, but steps were taken to make it as reproducible as possible



Is the Product Transparent?

[Checklist Continued]

- Many steps are implemented for point source NEI
 - Logging and archiving original data submittals
 - Archiving of “holding” tables
 - Archiving intermediate work products
 - Incorporating data elements in output files that help better user interpret the files
 - Documenting purpose, data sources, and methodology



Upcoming Refinements to Point Source NEI Development Process

- Prepare more detailed descriptions of archived data sets
- Develop an “Emissions History Table”
 - Tracks changes in emissions for each facility/pollutant combination by NEI version
 - Enables users to see past and current emissions at a glance
 - History record retained for closed sites, new sites flagged
 - Supplemented with holding tables with specific changes submitted
- Establish a data rating scheme
 - Completeness of data
 - Emission calculation method
 - Base year of data
 - Qualitative information
 - Specificity of data



Data Standards

- The goal of the program is to promote efficient sharing of information
- Several of the standards impact the NEI
 - SIC/NAICS
 - Latitude/longitude
 - Chemical identification
 - Facility identification
 - Contacts



SIC/NAICS Data Standard

- Includes ways to classify business activities, including industry classifications
- North American Industry Classification System (NAICS) codes will replace SIC codes
- For NEI, adapted Census Bureau crosswalk between NAICS and SIC codes
- Data submitters will be asked to populate NAICS codes in 2002 NEI submittals



Latitude/longitude Data Standard

- Consists of data elements to help users gauge the accuracy and reliability of coordinates
- Will be populated by data submitters
 - Source map scale number
 - Horizontal collection method
 - Horizontal accuracy measure
 - Horizontal reference datum code
 - Reference point code
 - Coordinate data source code
- Will entail changes to NIF



Chemical Identification Data Standard

- Provides for the use of common identifiers throughout EPA for all chemical substances
- Elements in standard are:
 - EPA chemical internal tracking number
 - Chemical Abstracts Service registry number
 - Chemical substance systematic name
 - EPA chemical identifier
 - EPA chemical registry name
- There will not be a direct impact on data submitters



Facility Identification Data Standard

- Consists of data elements that identify the location, affiliated organizations, individual business activities, and environmental interests of a facility
- For NEI, we will work with OEI to map facilities to the FRS (Federal Registry System)
- Will entail changes to NIF



Contacts

- Provide a consistent method of describing the data submitter
- Only impact is change in NIF transmittal table



Questions?

