Preparing for the PCWP MACT Survey

Amy Marshall
September 2016
Presentation Topics

- Regulatory Authority for EPA surveys
- Survey Process
- Recent Experience with RTR Surveys
- Suggestions for Submitting a Quality Response
Why is EPA going to send a survey to PCWP facilities?

– To gather information to support its current risk and technology review of the PCWP MACT and determine how to address sources without requirements.

– Information important for decisions like subcategorization, limits vs. work practices.

– EPA will issue a Part 1 questionnaire to >400 sites to obtain existing information and emissions data, then may issue a Part 2 to less sites that requires stack testing. This is similar approach to other recent rulemaking activities (e.g., Boiler, ethylene).

– Keep in mind as you are filling out the questionnaire that your information will be used for regulatory development purposes – be clear and concise.
Authority for EPA Surveys

– Clean Air Act Section 114 gives EPA regulatory authority to gather information.

– Under Section 114, EPA can require you to
  • Maintain records
  • Make reports
  • Install and use monitoring equipment and other procedures
  • Sample emissions
  • Submit compliance certifications
  • Provide other information the Administrator might reasonably require
  • Allow entry and inspection

– EPA is empowered to obtain information even if you consider it to be confidential. You may, however, request that EPA treat such information as confidential.
EPA's Information Gathering Authority
Under Section 114 of the Clean Air Act

Under Section 114 of the Act (42 U.S.C. 7414), Congress has given the U.S. Environmental Protection Agency broad authority to secure information needed "for the purpose (i) of developing or assisting in the development of any implementation plan under Section 110 or 111(d), any standard of performance under Section 111, or any emission standard under Section 112, (ii) of determining whether any person is in violation of any such standard of any requirement of such a plan, or (iii) carrying out any provision of this Act." Among other things, Section 114 authorizes EPA to make inspections, conduct tests, examine records, and require owners or operators of emission sources to submit information reasonably required for the purpose of developing such standards. In addition, the EPA Office of General Counsel has interpreted Section 114 to include authority to photograph or require submission of photographs of pertinent equipment, emissions, or both.
Confidential Information

If you claim information as confidential, EPA may ask about:

1. Measures taken by your company to guard against undesired disclosure of the information to others;
2. The extent to which the information has been disclosed to others, and the precautions taken in connection therewith;
3. Pertinent confidentiality determinations, if any, by EPA or other Federal agencies, and a copy of any such determinations, or reference to it, if available; and
4. Whether your company asserts that disclosure of the information would be likely to result in substantial harmful effects on the business' competitive position, and if so, what those harmful effects would be, why they should be viewed as substantial, and an explanation of the causal relationship between disclosure and such harmful effects.
How Does the Process Work?

– EPA has provided a draft of the survey for comment. They may or may not make changes based on comments. OMB then reviews. EPA then finalizes the survey and distributes.

– Each facility to complete the survey will receive a letter
  • Background and authority for survey
  • Scope, data to be gathered, and instructions/methodologies
  • Information on what is CBI and how to submit
  • Due date (can ask for extension if needed)
  • Usually a link to a website for download, QnA, submittal
  • Information completed electronically in a set of spreadsheets

– EPA’s contractor compiles the facility responses into one big database for analysis.
Recent Experience – Boiler MACT

– Boiler MACT – two part survey: Part 1 was sent to known universe of sources and gathered information on existing boilers and process heaters – design and emissions information. Part 2 was subsequently sent to selected facilities to gather additional HAP test data for units thought to be top performers.

– EPA developed a 2-component database that compiled the information obtained – facility information, unit design, materials combusted, emissions data. Database went through several revisions, posted on BMACT TTN website.

– It was up to industry to provide QA of much of the data and test reports; we found a lot of issues with data quality.
Pulp and Paper MACT RTR Survey

- Pulp and paper mills received a 3-component survey with each component due on a different date.

- Component 1: Mill overview and Subpart S data

- Component 2: NEI data – sources and actual emissions for review and update – hourly, tpy, startup, shutdown

- Component 3: Subpart MM data

- Process details, compliance approach, permit limits, testing and monitoring data, questions on startup/shutdown, information on recent modifications, cost data (optional), products

- Follow-up with EPA on outliers and data quality
171 facilities (45,000 tpy HAP combined)

Cancer risk - Hexachloroethane and naphthalene from kraft processes; Chronic non cancer risk – acetaldehyde;
Acute non-cancer refined results: acetaldehyde, chloroform, formaldehyde, methanol

Risks low – no changes due to risk review

Technology review – no cost effective developments in practice, process, or control technologies

Startup, shutdown, and malfunction exemption eliminated

Compliance testing every 5 years going forward
Recent Ethylene MACT Survey

- Ethylene manufacturing regulated under “Generic MACT”

- In 2014, EPA conducted site visits to Ethylene cracking facilities and sent out a Section 114 survey to gather information on configurations and emissions as part of RTR.

- In January 2016, EPA sent a draft 114 request requiring stack testing to 9 companies (21 facilities) for their comment.

- Because the Ethylene MACT does not currently have any requirements for ethylene cracking furnaces or decoking operations, EPA wants to gather emissions data on these operations.
Ethylene MACT ICR

– Final ICR issued April 2016. EPA provided some requested flexibility but is requiring extensive testing and data submission. Due date November 2016.

– Gas 1 fired cracking furnaces – Although Boiler MACT does not required testing of Gas 1 units, EPA is requiring 7 test runs for many pollutants while cracking for one furnace per facility. *Emissions are from Gas 1 fuel combustion, not from the cracking of feed.*

– Decoking – 3 decoking cycles, 3 runs per cycle.

– Heat exchanger liquid sampling

– Historical CEMS data for all furnaces
Phosphate MACT RTR Experience

– One facility subject to phosphate MACT has phosphate rock calciners that emit mercury from fuel and rock.

– EPA required emissions testing. Facility pushed back on amount of data to obtain, citing cost concerns.

– The data obtained were used to develop first-time Hg standards for these units.

– A small data set results in little variability and a limited picture of true emissions profile over time.

– Balance the cost of collecting data to cost of complying with a stringent emission limit based on little data...
Lessons Learned

– Important to understand how the data will be used
– Important to understand exactly what EPA is asking for
– Important to characterize emissions and variability
– Important to evaluate quality of data being submitted
– Important to collaborate with trade associations in commenting on draft and if additional investigation is needed to address EPA concern with information
– Balance the scope and cost of any testing required with the scope and cost of possible outcomes
Things to think about specific to PCWP MACT ICR

– How important is it to ensure some level of consistency among facilities with respect to identifying emission sources and what emissions are reported based on how it will affect EPA’s risk analysis (e.g., differences in emissions inventories among ncas members vs non-members, facilities using site-specific data, facilities with different state permitting thresholds)?

– Quality of emissions estimates based on engineering judgement, old data, or similar source emission factors and how they could affect the risk analysis - conservatism in permitting could have unwanted outcome with this analysis.
Suggestions for a Quality Response

– Read carefully, submit questions to EPA if a requirement is unclear. There will always be something that’s ambiguous.

– Understand sources covered, information required, process to submit, and the due date. Begin immediately – don’t wait!

– Form a team to collect the data and determine how to fill out the survey. SharePoint site helps to organize and share info.

– Develop assignments and schedule.

– If your company has multiple facilities, develop instructions to promote consistency and clarity across sites.
Suggestions for a Quality Response

– Determine what can be classified as CBI.

– Document how you collected the data and the decisions or assumptions you made so you can answer questions later.

– Pay attention to detail, remember this data is being used to revise a regulation.

– Have a review process - look across sites for “outliers” that could be errors, review data as you enter it for quality and make sure it meets the requirements.

– Get help – corporate, legal, consultant, ncasi, etc.
What you could go ahead and gather now

– Test reports (since 2003) for PM, opacity, VOC, HAPs, capture efficiency for PCWP process units

– Any CEMS or COMS data from 2015 for PCWP process units

– Flow diagrams

– Emission release point map

– MSDS for resins and coatings with HAPs

– Verify production/throughput capacities
Questions?

Amy.Marshall@AECOM.com
919.461.1251

June 2016