EPA Risk and Technology Review Update

CIBO Quarterly Meeting
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Background – Risk and Technology Reviews (RTR)

- The Risk and Technology Review (RTR) is a combined effort to evaluate both risk and technology as required by the CAA after the application of Section 112 MACT standards.

- CAA Section 112 has 2-part process to address emissions of HAP from stationary sources:
  - 112(d) – promulgate **technology** based standards for HAP source categories, review and revise (if necessary) no less than once every 8 years.
  - 112(f) – within 8 years after promulgation, perform a one-time **residual risk** review to determine if additional standards are needed to provide an ample margin of safety to protect public health.

EPA Progress on RTRs

https://www3.epa.gov/airtoxics/rrisk/rtrpg.html

– Finalized RTRs for 56 source categories (e.g., Ferroalloys, Refineries, Pulp and Paper #1, Aerospace)

– RTRs required for about 62 additional categories, 47 of which are subject to consent decrees, court orders, or ongoing litigation.

– Consent decrees to finalize RTRs for 3 categories near term
  - POTW by 10/16/17
  - Portland Cement proposal by 9/15/17, final by 7/15/18
  - Wool Fiberglass by 12/15/17

Court Ordered Dates for RTRs

- Nutritional Yeast and Pulp and Paper #2 by 10/1/17
- 7 final RTRs by 12/31/18 (likely Wood Bldg Products Coating, Leather Finishing, Fabric Coating, Large Appliances Coating, Metal Furniture Coating, Friction Materials, Wet Formed Fiberglass Mats)
- 20 final RTRs by 3/13/20 (proposals needed by April 2019)
- 6 final RTRs by 6/13/20 (proposals needed by July 2019)
- EPA cannot miss court ordered deadlines – these are not like consent decrees where both parties can agree on an extension.

Upcoming RTRs on Court Ordered Schedules

Leather Finishing	Misc Coating Mfg	Ethylene	Site Remediation
WF Fiberglass Mat	Lime Mfg	Paper Coating	MON
Rubber Tires	Iron/Steel Foundries	MSW Landfills	Metal Can Coating
Lg Appliance Ctg	Plywood/CWP	HCL Prod	Metal Parts Coating
Friction Materials	Vegetable Oil	Plastic Composites	OLD
Metal Furniture	Boat Mfg	Asphalt	Turbines
Wood Bldg Prod	Metal Coil Coating	Iron & Steel	Plastic Part Coating
Fabric Coating	Cellulose Products	Engine Testing	Auto Coating
Taconite Ore			

Upcoming RTR Deadlines to be Set by Court Order

Primary Copper Smelting	Refractory Products
Carbon Black	Semiconductors
Cyanide Chemicals	Primary Magnesium
Spandex	Mercury Cell Chlor-Alkali Plants
Flexible Polyurethane Foam	

Court decision coming soon, likely a 3-year deadline to finalize.

EPA also working on Coke Ovens RTR, several MACT reconsideration rules, and ongoing litigation over several MACT RTRs.

Technology Review – What Does EPA Evaluate?

- Any add-on control technology or other equipment that was not identified and considered during development of the original MACT standards;

- Any improvements in add-on control technology or other equipment (that were identified and considered during development of the original MACT standards) that could result in additional emissions reduction;

- Any work practice or operational procedure that was not identified or considered during development of the original MACT standards;

- Any process change or pollution prevention alternative that could be broadly applied to the industry and that was not identified or considered during development of the original MACT standards; and

- Any significant changes in the cost (including cost effectiveness) of applying controls since the original MACT standards.

Residual Risk Review Components

- First EPA must determine if there is acceptable risk from the source category after implementation of MACT. If risks are unacceptable, EPA cannot consider cost in identifying the emission standards necessary to bring risks to an acceptable level.

- Next EPA determines if standards must be further revised to provide an **ample margin of safety** to protect public health. Can consider cost and feasibility in this step.

- Risk review includes inhalation risk assessment and screens to assess multipathway, whole facility, acute, and environmental risks. Can perform refined multipathway assessments in limited cases if screens show potential multipathway human health risk.

Other Actions EPA is Taking as part of RTRs

- Technical corrections
- Assessing whether they need to regulate additional processes and pollutants not covered by original regulation
- Reviewing use of surrogates
- Removing SSM exemption
- Reviewing venting or excess emissions allowances/provisions
- Adding 5-year repeat testing
- Adding electronic reporting

Possible Outcomes of an EPA RTR Rulemaking?

- Risk review – could show more stringent requirements are needed, either to reduce risk or provide an ample margin of safety.
- Technology review – could show more stringent controls are cost effective.
- Gap filling – could result in new standards for sources or pollutants not covered by original rule.

Portland Cement MACT RTR Proposal Signed 9/1/17

- No ICR was conducted
- EPA developed a list of facilities, Portland Cement Association reviewed.
- EPA developed an emissions and release point inventory and asked Portland Cement Association/members to review and provide corrections.
- Data submitted to NEI or CEDRI was used for emissions; if information missing, substituted allowable emissions.
- Risk analysis showed acceptable risks for both actual and allowable emissions.
- No changes due to technology review.

Stationary Gas Turbine RTR – in Progress

- EPA contact is Melanie King
- EPA reached out to stakeholders to update facility list in 2016
- No ICR is planned
- 2014 NEI data used to build modeling file, will likely share for feedback/corrections when complete
- Would like data for new turbines
- Not sure if RTR rulemaking will address turbines without limits
- May have to remove stay for new gas turbines
- Goal is proposal late 2018, have to finalize by March 2020

Other Current RTR Activity

- Plywood/CWP – ICR forthcoming, no emissions testing, RTR and gap filling for sources with no requirements in original rule but listed as part of the source category.
- Ethylene – 2 step ICR, questionnaire and emissions testing, EPA evaluating ICR data, target Sep 2018 proposal. Gas 1 cracking furnaces not subject to BMACT – may get emission limits. Final March 2020.
- HCl – have permits for the 16 affected plants, using 2014 NEI data and filling gaps, proposal mid next year and March 2020 deadline for final.
- MON, MCM, and OLD – working on a facility list, plan to look at about 300 high risk facilities per NATA and about 300 low risk facilities, just getting started, targeting Dec 2018 proposal.
- EPA could issue some 9-entity ICRs to avoid OMB review and inform RTRs.

Major Revisions EPA has Made in RTR Rulemakings

- Prohibiting releases from PRDs and adding monitoring of PRDs (chemical manufacturing RTRs)
- Establishing emission limits or work practices for emission units not regulated under original MACT standard (or a new area source rule in the case of wool fiberglass furnace Cr6)
- Establishing emission limits for pollutants not regulated under original MACT standard (e.g., Hg from phosphate rock calciners)
- Adding requirements or revising limits to address AMOS (e.g., Cr electroplating, primary aluminum)
- Adding monitoring – Ferroalloys: new requirements for fugitive sources and use of digital opacity camera

2015 Final Refinery RTR

- Although the residual risk from the refinery sector was determined by EPA to be acceptable, EPA deemed that additional requirements were necessary to provide an ample margin of safety.

- EPA finalized new requirements for flare combustion efficiency, fenceline monitoring (concern over fugitive emissions), delayed cokers, storage vessels, SSM periods, and testing, monitoring, and reporting.

- Fenceline monitoring likely coming in future chemical industry RTRs.

- PRD releases in previous chemical industry RTRs prohibited and deemed violations, but Refinery RTR treated them differently: miscellaneous process vent with work practices. Two California Refinery PRD rules deemed to apply to top performers.

What Could We Expect with Boiler MACT RTR?

- EPA will have facility list and emissions from online data submittals.
- EPA has acknowledged that the RTR process does not automatically require them to re-calculate MACT floors.
- EPA will determine whether advances in technology have occurred such that additional controls would be feasible and cost effective.
- EPA will evaluate residual risk – based on actual and allowable emissions. Revisions to emission limits could be made if risk is not acceptable or if allowable emission limits do not provide AMOS.
- CIBO and others will review and comment on any changes proposed, develop cost analyses for proposed changes not due to actual risk.

Questions?

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