

4.0 Old Business

4.1. Hazardous Air Pollutant (HAP) Issues

4.1.1. Residual Risk and Technology Reviews (RTRs)

- J. Hannapel provided information that the proposed and final rule schedule was identified in litigation as follows: Proposed Rule 12/12/2019, Final Rule 4/6/2021. In the litigation, the Iron and Steel Foundry RTR was identified with a complexity rating of “3” meaning it is expected to be one of the most involved rulemaking efforts (a copy of the litigation is provided with the minutes).

- Historical Information

J. Hannapel reported a subcommittee has reviewed USEPA’s list of possible major sources. The list was distributed to 10-E members for review. The USEPA list had several foundry area sources misidentified as major sources. A subcommittee of 10-E members reviewed USEPA’s list of major sources, made corrections and submitted the revised list to USEPA.

USEPA will be crafting an Information Collection Request (ICR) to send to major source iron and steel foundries. AFS will assist USEPA in developing and subsequently reviewing the ICR.

J. Hannapel reported recent court decisions have upheld USEPA methodology that does not recalculate MACT floor when preparing RTRs [in footnotes the courts said they could].

August 23, 2013 EarthJustice gave notice of citizen suit regarding USEPA missing deadlines to promulgate timely residual risk and technology review standards for several categories including Iron and Steel Foundry major sources of HAPs. EarthJustice is working with USEPA to establish rulemaking deadlines for industry categories.

To date, all attempts by environmental groups to require USEPA to establish a standard based on the top 12 percent of the category has been struck down. Chrome Plating NESHAP court decision may reshape how the technology review is to be determined.

Committee members should start compiling a list of what requirements we would like removed from Iron and Steel Major Source NESHAP.

**IN THE UNITED STATES DISTRICT COURT
FOR THE DISTRICT OF COLUMBIA**

BLUE RIDGE ENVIRONMENTAL)		
DEFENSE LEAGUE, et al.,)		
)	
Plaintiffs,)		Civil Action 1:16-CV-00364-CRC
)	
v.)		
)	
GINA MCCARTHY, Administrator,)		
United States Environmental)		
Protection Agency,)		
)	
Defendant.)		
_____)		

DECLARATION OF PANAGIOTIS E. TSIRIGOTIS

1. I, Panagiotis E. Tsirigotis, under penalty of perjury, affirm and declare that the following statements are true and correct to the best of my knowledge and belief and are based on my own personal knowledge or on information contained in the records of the United States Environmental Protection Agency (EPA) or supplied to me by EPA employees under my supervision.

2. I am the Director of the Sector Policies and Programs Division (SPPD) within the Office of Air Quality Planning and Standards (OAQPS), Office of Air and Radiation (OAR) at EPA, a position I have held since February 6, 2006. SPPD is the division within OAQPS that has responsibility for, among other things, developing regulations, policy, and guidance associated with section 112 of

the Clean Air Act (CAA), 42 U.S.C. § 7412, which is the national emission standards for hazardous air pollutants (NESHAP) program.

3. In my current capacity as Director of SPPD, I am responsible for overseeing EPA's promulgation of significant regulations related to the NESHAP and solid waste combustion programs. In this capacity, I am familiar with the process required for developing and promulgating major EPA regulations under the CAA.

4. Section 112 addresses the control of hazardous air pollutants (HAP) from stationary sources. Section 112(d)(2) requires EPA to establish emission standards for existing stationary sources based on the level of control achieved by the best controlled sources within the source category or subcategory and to set standards for new sources based on the best controlled similar source. Section 112(f)(2)(A) provides, in part:

[t]he Administrator shall, within 8 years after promulgation of standards for each category or subcategory of sources pursuant to subsection (d) of this section, promulgate standards for such category or subcategory if promulgation of such standards is required in order to provide an ample margin of safety to protect public health in accordance with this section . . . or to prevent, taking into consideration costs, energy, safety, and other relevant factors, an adverse environmental effect.

In addition, section 112(d)(6) provides:

The Administrator shall review, and revise as necessary (taking into account developments in practices, processes, and control technologies), emission standards promulgated under this section no less often than every 8 years.

The review conducted pursuant to section 112(f)(2)(A) is commonly called the residual risk review, and the review conducted pursuant to section 112(d)(6) is known as the technology review. Each section's review is associated with a rulemaking action required by that section. EPA generally performs the residual risk review at the same time as the first technology review (collectively the "risk and technology review" or "RTR"). Although the reviews are not directly related, simultaneous consideration of the results of the two rulemaking reviews, including potential additional levels of control, is beneficial for multiple parties. For industry, this joint approach reduces the potential for unnecessary costs from imposing marginally more effective, yet potentially significantly more costly, controls in a second rulemaking; for public interest groups, this joint approach avoids the potential that EPA might reject such controls as too costly. Some information required to support each of the two reviews is different, as is the analysis EPA conducts for each of the reviews. The schedules discussed below account for the fact that EPA is conducting two rulemakings for each of the source categories at issue in this litigation.

5. As part of my duties as the Director of SPPD, I am involved in the prioritization and allocation of EPA's resources in order to meet the legal requirements of the CAA as well as the air quality needs of the nation. Given the funding and other resource constraints facing the agency, EPA is not able to

perform all activities that it may want to perform, and that it is authorized to perform, at any given time. These constraints influence the manner and schedule by which EPA takes its required actions under the CAA. The timing of such actions can greatly affect the scope, quality, and informational bases that underlie them. Meeting all mandatory duties imposed by the CAA with limited resources requires EPA to make choices in the prioritization and scheduling of projects.

6. In allocating resources and prioritizing particular projects, OAR and SPPD look at several factors including but not limited to: (1) whether the CAA requires a project to be completed by a certain time; (2) the environmental and public health impacts of proceeding with a particular project compared to other projects; (3) the amount of resources that would be needed to complete a particular project; (4) the other mandatory duties under the CAA that are assigned to a particular office; and (5) the amount of information (including needs for additional information) required in order to appropriately support a project. I am very familiar with the processes and time periods allotted for EPA to take regulatory actions under the CAA, including issuing rules pursuant to CAA sections 112(f)(2)(A) and 112(d)(6), 42 U.S.C. §§ 7412(f)(2)(A) and 7412(d)(6), respectively, often collectively referred to as “RTR rules.” I have relied upon my staff to provide the factual information concerning the regulatory steps and schedule needed for the

particular CAA section 112 actions at issue in the case for which I make this declaration.

7. The purpose of this declaration is to explain EPA's proposed schedule for completing the RTR rulemakings for the 13 source categories listed in Table 1. The schedules set forth in Table 1 take into consideration other obligations that OAR, and specifically the same division, SPPD, must meet within the same timeframe. These obligations include conducting RTR rulemakings for 33 other source categories as a result of separate lawsuits¹ and completing RTR rulemakings for 2 other categories subject to the deadline in section 112(f)(2): Large Municipal Waste Combustors and Coke Ovens. Based on my experience,

¹ The consent decree entered on October 8, 2015, in Sierra Club v. McCarthy, Civ. Act. No. 13-1369 (RDM) (D.D.C.) established deadlines for an RTR for the Publicly Owned Treatment Works category: EPA must sign a proposed rule by December 8, 2016, and a final rule by October 16, 2017. Id. ¶ 28. The consent decree entered on September 26, 2011, in Sierra Club v. Jackson, Case No. 09-cv-00152 SBA (N.D. Cal.) requires EPA to complete an RTR action for the Portland Cement Manufacturing source category: EPA must sign a proposed rule by June 15, 2017, and a final rule by June 15, 2018. Id. ¶ 28. In Sierra Club v. McCarthy, Case No: 3:15-cv-01165-HSG (N.D. Cal.), by court order dated March 15, 2016, the district court ordered that EPA complete an RTR action for the Pulp and Paper Combustion Sources source category and the Nutritional Yeast Manufacturing source category by October 1, 2017. In California Communities Against Toxics v. McCarthy, Case No: 1:15-cv-00512 (D.D.C.), cross motions for summary judgment are pending before the court and those motions present competing schedules for proposing and issuing final RTR actions for 20 source categories. Finally, a recently-filed action seeks to establish a schedule by which EPA must complete RTR actions for another 9 source categories. Community In-Power and Development Association v. McCarthy, Civil Action 1:16-cv-01074-KBJ (D.D.C.).

extensive consultation with OAQPS staff, and consideration of these other pending RTR actions, the following schedule represents my best estimate of the minimum reasonable time needed for completion of the risk and technology reviews and promulgation of additional standards, if needed, for these 13 source categories. If EPA is required to act on a shorter schedule, the Agency would be forced to take procedural or analytical shortcuts that I believe could jeopardize both the soundness of the regulatory actions and their legal defensibility.

8. The proposed schedules for the 13 source categories are shown in Table 1. Section A of this declaration discusses the rulemaking phases and provides details on the amount of time needed to complete each phase.

Table 1. Proposal and Final Rule Dates for the 13 RTR Source Categories

Source Category	Proposal Date	Final Rule Date
Fabric Printing	1/17/2018	1/15/2019
Metal Furniture	2/15/2018	2/12/2019
Large Appliances	3/15/2018	3/12/2019
Leather Finishing Operations	3/22/2018	3/19/2019
Wood Building Products	4/17/2018	6/11/2019
Friction Products Manufacturing	7/31/2018	7/25/2019
Rubber Tire Manufacturing	1/22/2019	3/17/2020
Wet Formed Fiberglass Mat Production	9/17/2019	9/9/2020
Taconite Iron Ore Processing	10/3/2019	10/27/2020
Lime Manufacturing	10/29/2019	12/15/2020
Iron and Steel Foundries	12/12/2019	4/6/2021
Plywood and Composite Wood Products	1/28/2020	5/20/2021
Misc. Coating Manufacturing	6/17/2020	10/13/2021

9. The SPPD within OAQPS is responsible for development of the RTR rules at issue in the litigation. SPPD prepared a template that identifies the phases in the RTR rulemaking that cover all rulemaking tasks and accounts for the minimum time necessary to adequately complete those tasks. This template and the resulting schedule are based on SPPD's actual experience finalizing RTR projects covering 31 source categories since 2012.

10. The RTR rulemaking process can be divided into 9 phases:

Phase I. Project Kickoff

Phase II. Preliminary Information Collection

Phase III. Supplemental Information Collection

Phase IV. Data Analyses and Modeling File Development

Phase V. Residual Risk Analyses and Technology Review

Phase VI. Development of Rule Proposal Package

Phase VII. Proposed Rule Publication and Public Comment Period

Phase VIII. Summarization of Comments, Development of Comment Responses and Analysis of Data

Phase IX. Development of Final Rule Package

A. General Schedule Requirements for Risk and Technology Review Projects.

11. The following paragraphs describe the individual tasks typically required to complete RTR projects and provide estimates of the time required to adequately complete each task. As a starting point in our consideration of the minimum time needed to complete these rulemakings, for planning purposes, we assumed that the Court will grant the schedule that we requested to issue RTR rules for 20 source categories in our Cross-Motion for Summary Judgment in California Communities Against Toxics v. McCarthy.² If the court in that earlier case, in ruling on the pending cross-motions for summary judgment, orders EPA to complete the 20 RTR rules in a substantially shorter period, the Agency may have to reallocate resources, which could impair EPA's ability to meet the Agency's proposed schedule for the 13 RTR actions addressed in the present matter. Should that occur, EPA will promptly provide a revised schedule to the Court. Table 2 below shows the start state and the number of days estimated for each proposal phase (Phases I – VI) for each source category, and Table 3 shows the number of days estimated for each final rule phase (Phases VII - IX) for each category. Most

² The schedule in EPA's Motion provides a staggered schedule for the Agency to issue proposed and final rules for all 20 source categories, with the first proposed rule to be issued no later than Aug. 16, 2017 and the last final rule to be issued no later than November 17, 2021. The Petitioners requested that the court set a 2-year schedule for EPA to complete RTR rulemakings for all 20 source categories.

of the columns in the tables are self-explanatory, but two require some explanation. First, the “Complexity (1-3)” column refers to the expected relative complexity of the projects, with “1” being the least complex and “3” being the most complex. We note that all of the RTR projects include extensive data analysis and risk modeling activities that are both time and resource intensive. In determining the relative complexity, we considered factors such as the number of facilities in a source category, the number and types of pollutants emitted, the number and type of emission sources in a source category, and the expected interest and involvement of external parties, such as regulated entities and public interest groups, in the rulemaking effort. The relative complexity impacts the time needed for certain phases of each of the rulemaking projects and is reflected in our proposed schedules. Second, the “SPPD Group” column refers to the group within EPA that houses the staff with specific expertise in the particular source categories. This is relevant for determining the time it will take to complete the 13 rulemakings at issue because of the workload capacity of the staff. We note that all but one of these projects were started over the past 6 months, and the start dates are based on the date early project activities occurred (such as assignment of a project lead, drafting of a work assignment, or internal project kickoff meetings).

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TABLE 2. ESTIMATED MINIMUM NUMBER OF DAYS FOR EACH RTR PROPOSAL PHASE BY SOURCE CATEGORY

Source Category	Complexity (1-3)	SPPD Group	No. of Facilities	Start Date	Phase I Days	Phase II Days	Phase III Days	Phase IV Days	Phase V(a) Days	Phase V(b) Days	Phase V(d) Days	Phase VI Days	Proposal Date
Fabric Printing	1	MMG	54	3/24/16	45	90	0	120	30	0	14	365	1/17/18
Metal Furniture	1	MMG	19	3/24/16	45	90	0	120	30	0	14	394	2/15/18
Large Appliances	1	MMG	12	3/24/16	45	90	0	120	30	0	14	422	3/15/18
Leather Finishing	1	NRG	7	7/12/16	30	90	0	90	30	0	14	364	3/22/18
Wood Building Products	2	NRG	51	5/12/16	30	90	0	120	60	0	14	391	4/17/18
Friction Products	1	MMG	5	4/8/16	45	90	210	90	30	0	14	365	7/31/18
Rubber Tire Mfg.	2	MMG	25	4/13/16	45	90	210	120	60	60	14	415	1/22/19
Wet Formed Fiberglass Mat Prod.	1	ESG	7	10/3/16	60	90	370	90	30	60	14	365	9/7/19
Taconite Iron Ore	2	MIG	7	7/11/16	60	90	410	120	30	60	14	395	10/3/19
Lime Mfg.	2	ESG	39	8/1/16	60	90	390	120	60	60	14	390	10/29/19
Iron and Steel Foundries	3	MIG	68	3/31/16	60	90	540	120	60	60	14	407	12/12/19
Plywood and Composite Wood Products	3	NRG	450	3/28/16	30	90	600	120	90	60	14	397	1/28/20
Misc. Coating Manufacturing	3	RCG	47	2/1/16	60	90	720	120	90	60	14	444	6/17/20

TABLE 3. ESTIMATED MINIMUM NUMBER OF DAYS FOR EACH RTR FINAL RULE PHASE BY SOURCE CATEGORY

Source Category	Complexity (1-3)	SPPD Group	Proposal Date	Phase VII Days	Phase VIII Days	Phase IX Days	Final Rule Date
Fabric Printing	1	MMG	1/17/18	90	90	183	1/15/19
Metal Furniture	1	MMG	2/15/18	90	90	182	2/12/19
Large Appliances	1	MMG	3/15/18	90	90	182	3/12/19
Leather Finishing	1	NRG	3/22/18	90	90	182	3/19/19
Wood Building Products	2	NRG	4/17/18	90	120	210	6/11/19
Friction Products	1	MMG	7/31/18	90	90	179	7/25/19
Rubber Tire Mfg.	2	MMG	1/22/19	90	120	210	3/17/20
Wet Formed Fiberglass Mat Prod.	1	ESG	9/7/19	90	90	178	9/9/20
Taconite Iron Ore	2	MIG	10/3/19	90	120	180	10/27/20
Lime Mfg.	2	ESG	10/29/19	90	120	203	12/15/20
Iron and Steel Foundries	3	MIG	12/12/19	90	150	241	4/6/21
Plywood and Composite Wood Products	3	NRG	1/28/20	90	150	238	5/20/21
Misc. Coating Manufacturing	3	RCG	6/17/20	90	150	243	10/13/21

12. *Phase I. Project Kickoff (2 months)*

The major tasks to be accomplished in this phase include:

- (a) Establish a project team and an intra-agency workgroup, determine whether the project will be completed with or without contractor support, secure funding if contractor support is required, and develop an overall project plan and schedule.
- (b) Identify potential stakeholders, such as regulated entities and public interest groups, interested in the rule development. Prepare written materials and brief stakeholders on the general plans for the project. Conduct multiple meetings with the various stakeholder groups.
- (c) We expect that a contractor will perform some of the work for each of the 13 projects. Therefore, the schedule includes time for activities related to establishing work assignments, including: preparing a work assignment that establishes the specific tasks and schedule for each project; contractors developing a workplan based on the work assignment; EPA reviewing and commenting on the workplan; contractor revising the workplan in response to EPA comments and submitting the final workplan for EPA approval; and EPA completing the administrative tasks to fund the work assignment.

13. *Phase II. Preliminary Information Collection (3 months)*

The major tasks to be accomplished in this phase include:

(a) Collect available background literature concerning the source category and technology relevant to the source category from project files, EPA's library, major university libraries, public libraries, and the Internet.

(b) Collect available information regarding the effectiveness of the current standards and developments in practices, processes, and control technologies.

(c) Establish the current inventory of facilities in the source category by reviewing project files, permits, and EPA databases; coordinating with EPA's Office of Enforcement and Compliance Assurance and EPA Regional Offices; and contacting state agencies.

(d) Gather and compile data from all available sources, including data on emissions of hazardous air pollutants from facilities in the source category, in order to determine whether additional information collection is needed to sufficiently characterize emissions from the source category.

14. *Phase III. Supplemental Information Collection (0 to 28 months)*

(a) While we currently believe that supplemental information collection will be necessary for more than half of the source categories in order for EPA to complete a sound and defensible rulemaking, we will make a final determination following the preliminary information collection phase for each project. The EPA can select from 3 options for supplemental information collection. The first option,

for categories where we already have sufficient information, is to not collect additional information. The second option, which we refer to as a “survey” in this declaration, is to send a request for information to 9 or fewer entities in a source category. This type of information collection, authorized under section 114 of the Clean Air Act, 42 U.S.C. § 7414, does not require approval by the Office of Management and Budget (OMB). The third option, which we refer to as an “information collection request (ICR)” in this declaration, is to send a request for information to 10 or more entities in a source category. This type of information collection, also authorized under section 114 of the CAA, requires OMB approval under the Paperwork Reduction Act (PRA), 44 U.S.C. §§ 3502(3)(A), 3507, and requires a significant amount of additional time and resources. Regardless of the number of entities, development of either a survey or an ICR involves identifying information needs, developing questions and instructions, and preparing an electronic system (i.e., spreadsheets or a database) for information submittal. While some questions are generic in nature, much of the survey or ICR is tailored to the specific industry, so a survey or ICR is unique for each source category and requires time and resources to develop.

(b) Our current information suggests that we do not need to collect additional information to complete the RTRs for the following 5 source categories: Fabric Printing, Metal Furniture, Large Appliances, Wood Building Products, and

Leather Finishing Operations. Therefore, our proposed schedule does not include time for supplemental information collection for these categories. We estimate that for the other 8 source categories some amount of supplemental information collection is necessary to support sound and defensible risk and technology reviews, as discussed in the following paragraphs.

(c) Based on current information regarding the number of facilities in each category and anticipated information needs, we project that a survey would be the best approach for supplemental information collection for the following 5 source categories: Friction Products Manufacturing, Rubber Tire Manufacturing, Wet Formed Fiberglass Mat Production, Taconite Ore Processing, and Lime Manufacturing. Therefore, our supplemental information collection for those 5 categories would not require approval by OMB. These surveys can generally be completed in approximately 7 months, depending on the scope of the collection, if, as EPA expects for 2 of these 5 categories, no new emission testing is required. We expect the preparation process for the surveys to take a minimum of 45 days, followed by a 21-day internal review, 7 days for revisions, a 30-day stakeholder review, and 14 days for final revisions and distribution to industry. An adequate response period for subject entities is a minimum of 3 months, which allows time for review of the questions, gathering of information regarding processes, emission controls, raw materials, pollution prevention measures and other requested

information, compilation of existing testing and monitoring data, development of emission estimates, quality assurance/quality control (QA/QC), review and approval by facility management, and formal submittal of information, with certification stating that the information submitted is an accurate representation of facility operations and emissions. We do not anticipate a need to require new emission (or raw materials) testing for 2 of these 5 categories and are only including the amount of time necessary for performing new tests in our proposed schedules for 3 of the categories, Wet Formed Fiberglass Mat Production, Taconite Iron Ore Processing, and Lime Manufacturing. However, if the information gathered indicates, in EPA's judgment, a need for new emission testing, we would seek the Court's leave to revise the schedule before requiring the testing. If the schedule was adjusted to allow time for the additional testing, we would prepare testing requests and send the requests to the appropriate entities. This process takes a minimum of 6 additional months and can take up to an additional year depending on multiple factors, including the extent of the testing, the specific pollutants tested (some laboratory analyses take up to 1 month to complete), the time of year (weather conditions may preclude testing at some locations during winter months), and facility schedules (seasonal production variations, planned or unplanned outages, etc.). The overall process involves selection of emission points and emission test methods, discussions with stakeholders regarding nuances in process

operations that can impact emissions, preparation of detailed test request documents, procurement of test contractors by the facilities, emissions testing, laboratory analysis of samples, and submittal of data through EPA's electronic reporting tool.

(d) Based on current information regarding the number of facilities in each category and anticipated information needs, we project that an ICR would be the best approach for detailed information collection for the following 3 source categories: Plywood and Composite Wood Products, Iron and Steel Foundries, and Miscellaneous Coating Manufacturing. Therefore, our supplemental information collection for those 3 categories would require approval by OMB. While many of the steps and timeframes are similar to those described above for surveys, the requirements related to review by OMB add about 9 months to the overall process. Therefore, information collection for the projects that include an ICR can generally be completed in 16 months if no new emissions testing is required. Where new emissions testing is required, this period would need to be extended by up to 12 more months for a total of up to 28 months. We expect that some amount of testing would best support our risk assessments, and our schedules include additional time for new emissions testing for each of the projects that include an ICR. We note that any such testing requests would require OMB approval. For the Plywood and Composite Wood Products source category, our schedule reflects somewhat less

time than the maximum outlined above because prior to the project “kickoff,” we already began development of the ICR and because we know the scope of the data needed for the RTR and plan to include in the ICR a plan for emissions testing that we will implement if the needed data are not readily available. We also note that the first Federal Register notice for this ICR was recently published. Considering the work that we already completed related to ICR development, our schedule reflects a total of 20 months to complete the Plywood and Composite Wood Products ICR, including the requirement for new emissions testing. For Iron and Steel Foundries, where we also anticipate the need for new emission testing, we estimate a total of 18 months to complete the ICR. This time period is somewhat shorter than typically needed for an ICR and testing program because we already have a sense of the data needs and thus plan to include new emissions testing requests when the ICRs are issued, rather than issuing the test requests after the initial ICR responses are submitted and assessed. For Miscellaneous Coating Manufacturing, we anticipate a 2-phase ICR where testing needs would be identified after the initial ICR responses are submitted and data needs are assessed. For this source category, we do not currently have sufficient information to identify data gaps (i.e., the processes that lack emissions information) and the appropriate emissions testing or other data needs. Therefore, we estimate a time period of 24 months, which allows for completion of a 2-phase ICR. We also note

that the Miscellaneous Coating Manufacturing ICR and RTR rulemaking are planned to be completed as part of a larger rulemaking effort that includes two other source categories, the Miscellaneous Organics NESHAP and Organic Liquids Distribution. These categories are part of a separate deadline suit before this same court. We plan to conduct these rulemakings simultaneously because many of the facilities have operations that are part of all three categories. As such, we are requesting the same schedule for Miscellaneous Coating Manufacturing that we already requested for the other two projects. Should we determine that more extensive emission testing (than allowed for by this timeframe) for any of the categories is necessary, we would seek the Court's leave to revise the schedule before requiring the testing.

15. *Phase IV. Data Analyses and Modeling File Development (3 to 4 Months)*

Based on the information and data gathered for each source category, EPA develops a detailed modeling file that provides required inputs to the risk models. The modeling file includes the following information for every emission point in the source category at each facility: precise stack location; stack parameters including height, diameter, stack gas velocity and temperature; emissions values for each pollutant; and other site specific information. The modeling file also includes information for fugitive releases (i.e., emissions from a stationary source other than those that are captured and pass through a stack, chimney, vent or other

such opening): precise location, release parameters including fugitive lengths and widths, gas velocity, and temperature. The file undergoes extensive quality assurance/quality control (QA/QC) activities to minimize errors. Example QA/QC activities include plotting of source locations on maps to ensure that the locations are correct and identification of incorrect emission values through outlier analyses. The amount of time required for modeling file preparation is dependent on multiple factors, including the number of facilities and the complexity of the source category. Specifically, the file for a category with a handful of emission points per facility requires significantly less time than a file for a complex industry with multiple emission points. We note that this phase is critical because any errors in the modeling file impact all future project activities. We estimate a minimum of between 3 and 4 months for completion of this phase depending on the complexity of the project.

16. *Phase V. Residual Risk Analysis and Technology Review (2 to 6 months)*

There are multiple components to residual risk assessments: (a) inhalation assessment, (b) multipathway screening assessments, (c) multipathway refined assessment, and (d) risk-based demographic assessment. Components are conducted for a source category as needed. All estimates provided in this phase assume that the emission inventory has undergone QA/QC, as discussed above, before receipt by the risk assessors, and that modeling will be conducted one time,

not multiple times. If sufficient QA/QC is not conducted, the time required for modeling can increase several fold. We estimate the time for each category considering our preliminary evaluations of the complexity of the project, the size of the source category, and the types of analyses anticipated. Some of the smaller, less complex source categories may require as little as 2 months for modeling as reflected in the schedule, and some of the larger, more complex categories may require as much as 6 months for modeling, as reflected in the schedule and as described in paragraphs (a) – (d), below. It is important to note that after the time-consuming process of developing a modeling file is complete, a single run of the computer model can take up to 2 weeks for larger, complex source categories.

(a) An inhalation assessment, which estimates the risk from chronic inhalation of each pollutant, is always conducted, and the minimum amount of time required for this step is between 1 and 3 months. For a specific source category, the amount of time required for the inhalation assessment depends on the number of facilities in the category, the number of sources at the facilities, the number of pollutants emitted from the sources, and the locations of the facilities. The risk assessors check the centroids of each census block (which are the geographic center of the census block and are used as receptors in the model) to ensure that they are not located on facility property and that they accurately represent the location of the population in each census block. The location where

people live is a key factor in risk assessment because, in general, higher risks tend to occur closer to the facility. If a facility is located in a heavily populated area, more census blocks will be around the facility, and more time is needed to conduct these checks. Next, because the model estimates ambient air concentrations at every census block centroid within 50 kilometers of a facility and for every pollutant from every source from every facility in the source category, modeling for categories with more pollutants, more stacks, more facilities, and/or in heavily-populated areas will take longer to run and longer to post-process, perform QA/QC, and document the results. If additional modeling scenarios are required (e.g., to estimate risks from post-control emissions), additional time is needed. Concurrently, we also assess the potential for acute non-cancer inhalation risk for each source category. We estimate between 1 and 3 months for the inhalation assessment for each of the source categories.

(b) The 3-tiered multipathway screening assessments, which are used to provide upper-bound estimates of risk from ingestion of food contaminated with pollutants emitted from the source category (e.g., metals that bioaccumulate in fish), are only conducted on persistent and bioaccumulative HAP (PB-HAP). These include cadmium compounds, mercury compounds, chlorinated dibenzodioxins and furans, and polycyclic organic matter. Categories not emitting these pollutants do not require multipathway assessments. Only if a facility “fails”

the screen at one tier (i.e., upper-bound estimated risks are higher than levels that might be of concern) is the next tier conducted. Each tier replaces default values with more site-specific values. If PB-HAP are present, the first two tiers of the multipathway screen are conducted, as needed, concurrent with the inhalation assessment, so additional time is not required. In addition, a two-tiered environmental risk screen is conducted simultaneously with the multipathway screen, and additional time beyond that needed for the multipathway screen is not required.

If a category has facilities that emit high levels of PB-HAP, it may “fail” the first two multipathway screens, and the third tier screen may be conducted. The third tier multipathway screen can take additional weeks to months, depending on the number of facilities and pollutants that “fail” the first 2 screens. For the following 6 source categories, available information indicates that PB HAP are not emitted by most or all facilities: Fabric Printing, Metal Furniture, Large Appliances, Leather Finishing Operations, Wood Building Products, and Friction Products Manufacturing. Therefore, we project that for those 6 categories, the assessment will either not need a tier 1 screen, or will “pass” the tier 1 screen if PB-HAP are emitted. For those 6 categories, no additional time beyond that required for the inhalation assessment is anticipated. If we determine that PB-HAP are emitted from the source category in quantities that would cause facilities to fail

one or more tiers of the screen, we may seek additional time to conduct the additional screens. For the other 7 source categories (Rubber Tire Manufacturing, Wet Formed Fiberglass Mat Production, Taconite Iron Ore Processing, Lime Manufacturing, Iron and Steel Foundries, Plywood and Composite Wood Products, and Miscellaneous Coating Manufacturing, preliminary information suggests that PB-HAP are likely emitted, and we project that all three tiers of the screening assessments will need to be run. For each of these 7 categories, the schedule includes 2 months for conducting the multipathway screen.

(c) If a source category has facilities that “fail” the tier 3 multipathway screen, the risk assessment team may determine that a refined multipathway assessment is necessary. It is not automatically conducted. If one is conducted, additional months (and resources) are required to complete that assessment. While the tier 3 multipathway screen includes some site-specific parameters, there are many parameters that are still based on nationwide default values. A refined multipathway assessment attempts to replace as many of these parameter default values as possible with site-specific values. The gathering of this site-specific data and the design of the model parcels (that is, the topography and location of lakes and land that greatly influence the multipathway assessment) around the facility take the bulk of the time in a refined multipathway assessment. Once the inputs are prepared, the multipathway model is run, and results undergo QA/QC and are

summarized for the risk assessment team. For one facility, it could take an additional three to four months to conduct a refined multipathway assessment. Additional facilities will require additional time. It is not anticipated that a refined multipathway assessment will be necessary for any of the source categories, so no additional time beyond that for an inhalation assessment is required. If we determine that a refined multipathway assessment is necessary for one or more pollutants emitted from any source category, we would seek additional time to conduct the analysis.

(d) Finally, if EPA determines that a risk-based demographic assessment is necessary, 1 to 2 additional weeks will be required. This type of analysis is used to determine if emissions from a particular source category result in disproportionate risks to various demographic groups living near facilities in that particular source category and thus is an important tool for EPA's consideration of environmental justice issues. A risk-based demographic assessment cannot be conducted until the inhalation modeling is complete. For all 13 source categories, we plan to conduct risk-based demographics assessment, and we are including an additional 2 weeks, beyond the time required for the inhalation assessment, in our proposed schedule.

(e) Concurrent with the residual risk analyses (and, therefore, not requiring additional time), we also perform the technology review, which involves

evaluation of developments in practices, processes and controls to determine whether or not standards should be updated to reflect those developments. As part of the technology review, EPA evaluates the performance of control technologies and other emission reduction measures that have been implemented or improved since the original standards were finalized. In conjunction with the emission reductions that we project, we also evaluate the cost of achieving those reductions in order to determine if any of the developments should be incorporated into the standards. The options identified in the technology review also are considered as part of the risk review, where we assess the potential risk reductions associated with each option. We also evaluate advances in monitoring technologies when conducting the technology review.

17. *Phase VI. Development of Rule Proposal Package (12 to 15 Months, concurrent with last 1 month of Residual Risk Analyses)*

The amount of time for individual tasks in this phase is difficult to separate because multiple tasks have considerable overlap. In general, these tasks require technical analyses, multiple briefings for EPA management, drafting of technical memoranda and the regulatory package, and review of the regulatory package by the workgroup, EPA management, and, in most instances, OMB. Overall, we estimate this phase to take 12 to 15 months, with work on the phase beginning during the last month of the residual risk analyses discussed under Phase V. We note that the time periods for this phase for some of the projects were adjusted by

up to 30 days in order to avoid weekends, holidays, or overlap with other project briefing or signature dates. The major tasks to be completed in this phase include:

- (a) Drafting workgroup briefing materials, including development of regulatory options for possible inclusion in the proposed rule and the impacts and issues associated with each option, and meeting with the workgroup to discuss the materials. The EPA workgroup includes staff with a wide range of expertise, including health researchers, attorneys, compliance and enforcement staff, and regional office representatives, and their review is extremely valuable in assuring rulemaking quality. The workgroup provides input on health benchmarks, various technical analyses and aspects of the risk assessment, ease of enforcement, monitoring and testing technology, policy, and other aspects of the rulemaking;
- (b) Preparing briefing materials and briefing EPA management for selection of the regulatory option(s) for inclusion in the proposed rule;
- (c) Drafting proposed preamble and regulatory text, including preliminary review by OAR management.
- (d) Drafting supporting documentation for the proposed rulemaking package to present and describe all the data used, technical analyses completed, and regulatory options considered and selected;
- (e) Submitting draft regulatory preamble and text and supporting documents to the EPA workgroup for review, which helps to ensure, among other

things, legal sufficiency, sound scientific support, and consistency with other programs. Internal EPA procedures mandate that workgroup review is a minimum of 15 working days (approximately three weeks), and we therefore include 21 calendar days in our proposed schedule;

(f) After drafts are revised as necessary to obtain workgroup approval, the proposal package is reviewed by SPPD, OAQPS, and OAR management and, for projects that are considered significant regulatory actions, by OMB. We have included 3 months for OMB review for each of the source categories. See Executive Order 12866. The docket for the proposed rule is compiled and indexed so as to be available for public review upon publication of the proposed rule; and

(g) After final approval is obtained from EPA management, the EPA Administrator signs the proposed rule, which is then sent to the Office of the Federal Register for publication.

18. *Phase VII. Proposed Rule Publication and Public Comment Period (3 months)*

The public comment period begins on the date that the proposed rule is published in the Federal Register, and publication in the Federal Register typically takes between 2 weeks and 1 month following signature. Since EPA has very limited influence over the time for publication, we are assuming publication takes 1 month. The CAA requires that the public comment period remain open for 30 days following a public hearing on the rule. CAA section 307(d)(5). Since a public

hearing cannot be held until about 2 weeks after publication of the proposal (to allow for interested parties to make plans whether to attend the hearing and to review the proposed rule and prepare oral comments), the default “minimum” amount of time for the comment period is 45 days. However, because of the complexity of these rules, including the detailed emissions data and the modeling analysis for risk, EPA plans to provide a 60-day public comment period. Therefore, this phase will take a total of 3 months.

19. *Phase VIII. Summarization of Comments, Development of Comment Responses and Analysis of Data (3 to 5 months)*

(a) Following the public comment period and public hearing, if one is held, EPA drafts a summary of the comments. The number and complexity of the comments greatly varies from rule to rule. We typically receive between 10 and 50 unique, substantive comment letters, some including detailed technical data and information, on RTR proposals, although this number has been as high as about 200 for some of the larger, more complex source categories. We estimate that drafting a written summary of comments for source categories where limited comments are expected will take 1 month; for categories where more comments are expected, we estimate 2 months.

(b) EPA evaluates each relevant comment to determine an appropriate response. Some responses are straightforward, some require briefing EPA management, and some require re-analysis of data or analysis of new data supplied

during the comment period. For each source category, we estimate between 2 and 3 months for developing and drafting initial comment responses and conducting additional data analyses, if needed. In cases where we get an unusually large number of comments, the comment response task could take longer than our estimated time, and we would likely seek additional time to complete the final rule.

20. *Phase IX. Development of Final Rule Package (6 to 8 months)*

The individual tasks in this phase generally include technical analyses, multiple briefings for EPA management, drafting of technical memoranda and the regulatory package, and review of the regulatory package by the workgroup, EPA management, and, in most instances, OMB. Overall, we estimate this phase to take 6 to 8 months. We note that the time periods for this phase for some of the projects were adjusted by up to 30 days in order to avoid weekends, holidays, or overlap with other project briefing schedules or signature dates. The major tasks to be accomplished in this phase include:

(a) Drafting regulatory options for changes to the proposed rule based on comments received during the public comment period and briefing the workgroup. We estimate 15 days to complete this task.

(b) Preparing recommendations and briefing EPA management on comments received and changes recommended as a result of those comments. This

task involves briefings for SPPD management, OAQPS management, and OAR management. This briefing process takes a minimum of 1 month.

(c) Completing all needed technical analyses (which may include evaluating control options identified during the comment period, revising the technology review to reflect the new options, updating costs, updating economic impacts, updating emissions impacts, re-running risk models, and re-evaluating risk decisions); preparing the draft final rule preamble, regulatory text and other components of the rule package including updating supporting documentation and drafting new supporting documentation as needed; and compiling the comment summary and response document. We estimate a minimum of 1 to 2 months for these activities, depending on the complexity of the rule.

(d) Submitting draft materials to the workgroup for review, which helps to ensure, among other things, legal sufficiency, sound scientific support, and consistency with other programs. The workgroup is the same as that for the proposed rule and serves the same function. Internal EPA procedures mandate that workgroup review is a minimum of 15 working days (approximately 3 weeks), and we therefore include 21 calendar days in our proposed schedule.

(e) Completing final documents, with consideration of workgroup comments. The final preamble and rule are reviewed by SPPD, OAQPS, and OAR management and, for projects that are considered significant regulatory actions,

OMB. We include 3 months for OMB review for each of the source categories, as specified in Executive Order 12866. While OMB reviews the rule, we compile and index the administrative record, finalize the response to comments document, and finalize various supporting technical documents as needed. After any necessary revisions are made to the final rulemaking package, the final rule is signed and sent to the Office of Federal Register for publication. We estimate that this process will take a minimum of 3 to 4 months.

B. Time for Completion of Prior RTR Actions Supports the Schedules for the 13 RTRs.

21. The Agency has included, as an attachment to this declaration, a table showing the time it took EPA to propose and finalize RTRs for the last 31 source categories (all categories completed since 2012). See Attachment 1. The schedules set forth for the 13 RTR rulemakings at issue in this declaration are consistent with the shortest time periods it actually took EPA to complete these prior RTR rulemakings. Based on our recent experience, the minimum timeframe needed for completing an RTR project is fairly well established. No recent RTR project has been completed in less than 2.5 years from project start date, and any suggestion that it is possible to satisfactorily complete such an effort in a timeframe shorter than 2.5 years is without merit. Since 2012, EPA finalized RTR rulemakings for 31 source categories. The initial schedules for these 31 categories were established

under earlier consent decrees,³ which provided a maximum of about 3.5 years for completion, with shorter timeframes provided for most of the source categories. Notably, however, even with this timeframe we had to renegotiate deadlines multiple times because the original schedule was not sufficient to complete the projects for most of the source categories, including categories where work began prior to the agreement. As shown in the analysis of the time required to complete these complex rulemakings, since 2012, only 2 of the 31 source categories (Oil and Natural Gas Production and Natural Gas Transmission and Storage, both part of the same rulemaking package) were completed in less than 3 years (from project start date to publication of the final rule). The RTR rules for these 2 source categories, which did not include an ICR, were completed in just over 2.5 years, which is consistent with the amount of time that EPA estimates for completing an RTR project for a relatively simple source category without an ICR. Sixteen of the source categories were completed in 3 to 4 years, and of those, only 2 categories included a survey, and none included an OMB-approved ICR. The RTR rulemakings for the remaining 13 source categories all included ICRs, and the projects' completion times ranged from 4.5 years to more than 8 years. While many of these projects included multiple proposals and renegotiations of

³ The consent decrees were entered in Sierra Club v. Jackson, Case No. 09-cv-00152 SBA (N.D. Cal.); Wildearth Guardians v. Jackson (D.D.C. No. 1:09-cv-00089-CKK); Air Alliance Houston et al v. EPA, Case No. 12-1607 (D. D.C.).

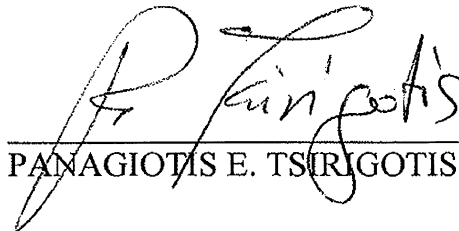
schedules, the amount of time that it took to complete these projects reflects reality. It is evident from this real-world experience that the schedules we are requesting are reasonable and appropriate representations of the minimum amount of time needed to complete these projects.

22. EPA has refined the RTR process over the last 15 years. Over that time, partly in response to stakeholder concerns and issues raised in litigation over early RTR rules, EPA has improved or added new approaches for evaluating risk. For example, EPA has improved or added processes for assessing acute, facility-wide, and environmental risks and for identifying potential environmental justice concerns (through the use of demographics analyses). In addition, the Agency now has 3 screening levels for multipathway pollutants, whereas it only had one screening level in the early risk review actions. EPA now requires more time to complete RTR projects than it did for older actions in large part due to the more complex technical analyses now performed in order to increase assurance that the promulgated rules are technically sound and legally defensible.

23. In accordance with a 2006 order of a Federal district court, EPA was required to establish standards for area sources, which are smaller sources of HAPs, under section 112(d) in approximately 8 months. For these sources, EPA established generally available control technology (“GACT”) standards pursuant to section 112(d)(5), in lieu of maximum achievable control technology (“MACT”)

standards pursuant to section 112(d)(2). EPA considers costs and economic impacts when establishing GACT standards, and such standards do not require the same levels of data, time, effort, and analysis as necessary for an RTR review under sections 112(d)(6) and 112(f)(2). *See e.g.* proposed National Emission Standards for Hazardous Air Pollutants for Area Sources: Acrylic and Modacrylic Fibers Production, Carbon Black Production, Chemical Manufacturing: Chromium Compounds, Flexible Polyurethane Foam Production and Fabrication, Lead Acid Battery Manufacturing, and Wood Preserving, 72 Fed. Reg. 16636, 16638 (April 4, 2007) (describing process for establishing area source GACT standards pursuant to section 112(d)(5)). Due to the differences in the complexity of the necessary analyses and the amount of information needed to complete area source GACT standards, the amount of time needed to complete an area source rulemaking in no way reflects the amount of time needed to complete an RTR rulemaking.

SO DECLARED:


PANAGIOTIS E. TSIGOTIS

Dated: 9/26/16

Attachment 1. Summary of Time Needed to Complete All RTR Projects Finalized Since 2012

SPPD Group	Source Category	No. of source categories	Actual Start Date ^a	First Proposed Rule Publication Date	Final Rule Publication Date	Months between first proposal and final	Months between start and final	Data Collection
FIG	Natural Gas Transmission and Storage	1	2/4/2010	8/23/2011	8/16/2012	12.0	30.8	None
FIG	Oil and Natural Gas Production	1	2/4/2010	8/23/2011	8/16/2012	12.0	30.8	None
MIG	Chromium Electroplating	3	10/1/2009	10/21/2010	9/19/2012	23.3	36.1	None
MIG	Steel Pickling	1	10/1/2009	10/21/2010	9/19/2012	23.3	36.1	None
RCG	Pesticide Active Ingredient Production	1	3/18/2011	1/9/2012	3/27/2014	26.9	36.8	None
RCG	Polyether Polyols Production	1	3/18/2011	1/9/2012	3/27/2014	26.9	36.8	None
RCG	Polymers and Resins IV	5	3/18/2011	1/9/2012	3/27/2014	26.9	36.8	None
MMG	Flexible Polyurethane Foam Production	1	4/15/2011	11/4/2013	8/15/2014	9.5	40.6	Survey
RCG	Off-Site Waste Recovery Operations	1	10/3/2011	5/30/2014	3/18/2015	9.7	42.1	Survey
RCG	Acrylic/ Modacrylic Fibers	1	2/27/2011	1/9/2014	10/8/2014	9.1	44.0	None
RCG	Polycarbonates Production	1	2/27/2011	1/9/2014	10/8/2014	9.1	44.0	None
RCG	Polymers and Resins III	1	2/27/2011	1/9/2014	10/8/2014	9.1	44.0	None
MIG	Secondary Lead Smelters	1	7/2007	5/19/2011	1/05/2012	7.6	54	Survey, emission testing
MMG	Mineral Wool	1	1/15/2010	11/25/2011	7/29/2015	44.7	67.4	Survey, emission testing
MMG	Wool Fiberglass ^b	1	1/15/2010	11/25/2011	7/29/2015	44.7	67.4	Survey, emission testing
NRG	Pulp and Paper I and III	2	2/15/2007	6/15/2011	9/11/2012	15.1	67.8	ICR
RCG	Petroleum Refineries	2	4/11/2010	5/5/2014	12/1/2015	19.2	68.7	ICR, emission testing
MIG	Ferroalloys Production	1	9/23/2009	11/23/2011	6/30/2015	43.8	70.2	Survey, emission testing
MIG	Secondary Aluminum	1	9/15/2009	1/30/2012	8/14/2015	43.1	72.0	ICR, emission testing
MIG	Primary Aluminum	1	9/15/2009	12/6/2011	10/15/2015	47.0	74.0	Survey, emission testing
MMG	Phosphate Fertilizer Manufacturing	1	5/15/2008	11/7/2014	8/19/2015	9.5	88.4	Survey, emission testing
MMG	Phosphoric Acid Production	1	5/15/2008	11/7/2014	8/19/2015	9.5	88.4	Survey, emission testing
MMG	Aerospace	1	3/29/2007	2/17/2015	12/7/2015	9.8	105.8	ICR, emission testing

^a Start dates estimated based on documented early activities on projects for each group.

^b On July 29, 2015, EPA issued a final rule for the Wool Fiberglass source category. Upon review, EPA determined that the final rule did not completely fulfill the intent of the consent decree. The parties subsequently agreed to a deadline of December 17, 2016, for EPA to issue an additional final rule addressing the outstanding issues.