

# Overview of Requirements of the Regional Haze Rule and Implications for SIP Development

Chris Werner and Phil Lorang

EPA Office of Air Quality Planning and Standards

Air Quality Policy Division

December 6, 2017



Note: 2017 RHR revisions are the subject of ongoing litigation.

# Outline for this Presentation

- History of the Rule Revisions and Guidance Documents
- Background on Regional Haze
- Key Similarities and Differences: 1st and 2nd Regional Haze Implementation Periods
- Key Provisions of the 2017 RHR
- Recap and Implications for SIP Development
- For More Information



## **\*\*Disclaimer\*\***

- The 2017 Regional Haze Rule Revisions are the subject of ongoing litigation and petitions for reconsideration.
  - This presentation is based on the Regional Haze Rule as it currently stands, i.e., as revised in January 2017.
  - This presentation makes no assumptions regarding what a final version of the 2016 draft guidance could include or the actions EPA might take in response to pending litigation.
  - Note: Next litigation deadline is 12/21/2017 (Motions to Govern).



# History of the Rule Revisions and Guidance Documents

- July 8, 2016: Notice of availability of draft guidance document.
- January 10, 2017: Final rule revisions.
  - This final rule addressed requirements for the second and subsequent planning periods only (SIP due dates of 2021 and later).
- Guidance document has not been finalized.
- There also are separate, broader EPA guidance documents on SIP emission inventories and air quality modeling for SIPs.
  - These are relevant to regional haze SIPs, and are revised from time-to-time.



# Background on Regional Haze

- CAA section 169A: Visibility protection for Class I federal areas.
  - Sets the national goal to prevent and remedy manmade visibility impairment.
  - Gives EPA authority and a mandate to adopt rules for SIPs to make reasonable progress towards the national goal.
  - Best available retrofit technology (BART) for sources of certain types and ages was a one-time requirement.
  - CAA section 169A lists four statutory factors when determining reasonable progress.
    - Cost of compliance.
    - Time necessary for compliance.
    - Energy and non-air quality impacts.
    - Remaining useful life.
- CAA section 169B: Visibility



# Key Similarities and Differences: 1<sup>st</sup> and 2<sup>nd</sup> Regional Haze Implementation Periods

- Note: See disclaimer on slide 3.
- *Similarities: 1<sup>st</sup> period and 2<sup>nd</sup> period*
  - There are no bright lines in the rule for what is reasonable for states to include in their long-term strategies for making reasonable progress.
  - EPA maintained the approach to SIP development (LTS, then project RPG(s)).
  - EPA reviews SIPs for consistency with the CAA and regional haze rule.
- *Differences: 1<sup>st</sup> period vs. 2<sup>nd</sup> period*
  - Focus going forward is on reasonable progress, as opposed to BART.
  - Visibility benefits are one of the five factors for BART in the first period, but are not one of the four statutory factors for reasonable progress.
    - The RHR does not prohibit consideration of visibility benefits, however.
  - Unlike the 2005 BART Guidelines Rule (which described how to quantify the five statutory factors for BART in the first period).
    - The RHR does not dictate any particular analytical methodology for evaluating the reasonable progress factors and instead provides a process for states to follow in developing approvable submissions.
  - Tracking metric uses anthropogenic impairment (vs. worst visibility).



# Key Provisions of the 2017 RHR

- Extended next Regional Haze SIP deadline from 2018 to 2021.
- Organized the requirements in the regulatory text applicable to second planning period SIPs (§51.308(f)) to better reflect the actual sequence of steps in the regional haze planning process, as follows:
  1. Calculate current visibility conditions, the Uniform Rate of Progress (URP), & the URP line (“glidepath”).
  2. Develop the LTS, by (among other things) evaluating sources that impact visibility at Class I area(s) for potential control measures by considering the four statutory factors.
  3. Calculate RPGs, which comprise projected visibility conditions at the end of the applicable implementation period resulting from the measures in the LTS that will be fully implemented by the end of the implementation period and other CAA requirements. Compare the RPG for the 20% most impaired days to the URP line.



# Key Provisions of the 2017 RHR

- Clarified that “visibility impairment” means the deviation from natural visibility that is due to anthropogenic impacts, and codified that states select the 20 percent most impaired days based on anthropogenic impairment.
- Clarified that the URP line starts at 2000-2004, for every implementation period.
- Clarified requirements that visibility conditions on the clearest 20% of days show no deterioration from conditions in 2000-2004 and visibility on the 20% most impaired days improve relative to that same baseline period.





# Key Provisions of the 2017 RHR, cont'd.

- In determining whether to approve the RPGs for a Class I area, EPA will consider the information in the SIPs of all contributing states (51.308(f)(3)(iv)).
- Updated terminology related to smoke management programs and basic smoke management practices.
- Removed the presumption that the year of the most recent “consolidated periodic emissions inventory” is the year of the baseline emission inventory ***on which the long-term strategy is based***.
  - This was replaced with a requirement for the state to use, but not necessarily to only use, information from the year of the state’s most recent submission to the triennial NEI, with a 12-month grace period.
  - There is no rule requirement regarding ***the base year for regional photochemical modeling***.



## Key Provisions of the 2017 RHR, cont'd.

- Allows a state with Class I areas significantly impacted by international emissions and/or specific types of wildland prescribed fire within the U.S. to potentially make an adjustment to the URP.
- Changes to RAVI Provisions.
- Changes to FLM Consultation Requirements.
  - **SIPs:** The 2017 RHR included a requirement that FLM consultation occur early enough in the SIP planning process to allow the state time for full consideration of FLM input, but no fewer than 60 days prior to a public hearing or other public comment opportunity.
    - A consultation opportunity that takes place at least 120 days prior to a public hearing or other public comment opportunity on a SIP “will be deemed to have been early enough.”
  - **Progress reports:** The 2017 RHR included a stand-alone requirement that states offer to consult with FLMs regarding progress reports.



# Key Provisions of the 2017 RHR, cont'd.

- Progress Report Requirements
  - Clarification of and Changes to the Required Content of Progress Reports
  - Changes to Scheduling of Progress Reports
    - The final rule requires a progress report mid-way between SIP revisions.
    - There is no longer a progress report required contemporaneously with a SIP.
  - Changes to the Requirement that Progress Reports be SIP Revisions
    - The final rule removes the requirement that progress reports take the form of SIP revisions.
- Required that SIPs contain information needed to make them also serve as progress reports
  - The only significant information otherwise required only in a progress report, and now required in a SIP revision, is the trend in visibility over the whole period since the baseline period of 2000-2004.



# Recap and Implications for SIP Development

- i. SIP revisions are due in 2021, 2028, and every ten years thereafter.
- ii. Next SIPs are due by July 31, 2021.
- iii. A state with a Class I area determines the URP Glidepath for that area. No decisions on controls are needed at this step.
- iv. Every contributing state reasonably selects some set of sources for four-factor analysis, and documents why it selected those particular sources. (“Screening step.”)
- v. Every state reasonably determines and adopts the additional controls for those sources that are necessary to make reasonable progress at both in-state and out-of-state Class I areas, considering the four statutory factors. (The long-term strategy.)
  - Consultation with other states occurs as part of this process, per 308(f)(2)(ii).
  - The state is required to use, but not necessarily only use, information from the year of the state’s most recent submission to the triennial NEI, with a 12-month grace period.
- vi. Then, each state with a Class I area sets the 2028 [only for 2<sup>nd</sup> implementation period] RPGs for the area based on the projected effect of all the contributing states’ long-term strategies.
- vii. If a Class I area is not projected to be on or below its Glidepath, all contributing states make an additional demonstration that there are no additional measures for their own sources that are necessary to make reasonable progress.
- viii. Separate from the requirement to consider the four statutory factors, the rule requires that there be no projected degradation on the clearest days and there be projected progress on the most impaired days, compared to 2000-2004.

Note: 2017 RHR revisions are the subject of ongoing litigation.



## Implications for SIP Development, Cont'd.

- ix. States consult with the responsible Federal land managers before the public comment period on a draft SIP revision, and publicly respond to their input.
- x. While there are no “bright line” requirements for quantification of the four factors (and visibility impacts and benefits), it needs to be done in a reasonable way.
- xi. Any states that submit in 2018 need to meet all rule requirements, including requirements in 308(f)(3) regarding an additional demonstration triggered by a comparison of the RPG(s) to the glidepath.
- xii. Modeling can play several roles in SIP development.
  - Setting the RPGs.
  - Determining which states contribute to each Class I area, which sources will be subject to four-factor analysis, the optional adjustments to the URP (international emissions and/or specific types of wildland prescribed fire), and the visibility benefits that optionally may be considered along with the four factors.
  - There is no rule requirement regarding the base year for regional photochemical modeling.



## For More Information

- EPA's Visibility and Regional Haze web site at <http://www.epa.gov/visibility>
- For further information about the 2017 RHR revisions, contact:

Chris Werner

EPA Office of Air Quality Planning and Standards

(919) 541-5133

[werner.christopher@epa.gov](mailto:werner.christopher@epa.gov)

