



# Protection of Visibility: Amendments to Requirements for State Plans

(Proposed Amendments to Regional Haze Rule)

Docket ID: EPA-HQ-OAR-2015-0531

U.S. Environmental Protection Agency  
Public Webinar – May 4, 2016

# Protecting Visibility



- The Clean Air Act established a national visibility goal to prevent any future, and remedy any existing, visibility impairment in national parks and wilderness areas.
  - Note: “Impairment” specifically refers to human-caused air pollution.
- 1980: EPA finalized regulations to address Reasonably Attributable Visibility Impairment (RAVI).
- 1999: EPA promulgated the Regional Haze Rule (RHR)
  - RHR calls for states to establish goals and emission reduction strategies for improving visibility in mandatory Class I Federal areas.
  - Describes required actions when submitting regional haze state implementation plans (SIPs) and progress reports.
    - Plans must demonstrate how states have made, and will continue to make, progress toward achieving their visibility improvement goals.
  - The first state plans were due in 2007 and covered 2008-2018, the first planning period.
  - This proposed rule revision addresses requirements for the second and subsequent planning periods.

# Proposed RHR Revisions



- Expansion of §51.308(f) to make it stand alone.
- Clarifications to Reflect EPA's Long-Standing Interpretation of the Relationship Between Long-Term Strategies (LTSS) and Reasonable Progress Goals (RPGs)
  - Organize the requirements in the regulatory text 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.
    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, and compare the RPG for the 20% most impaired days to the URP line.
  - Require that all states, not just those with Class I areas, must consider the four statutory factors when developing their LTSS.
  - Require that, in developing the LTS, a state must document:
    - The criteria used to determine which sources or groups of sources were evaluated.
    - How these four factors were taken into consideration in selecting the measures for inclusion in its LTS.
    - The technical basis on which the state is relying to determine the emission reductions from anthropogenic sources in the state that are necessary for achieving reasonable progress towards natural visibility conditions in each mandatory Class I Federal area it affects.
  - Require a state to consider the URP and the measures that contributing states are including in their LTSS when determining whether the state's own LTS is sufficient to ensure reasonable progress.
  - Clarify the respective obligations of "contributing states" and "states affected by contributing states" during interstate consultation.

# Proposed RHR Revisions



- Other Clarifications and Changes to Requirements for Periodic Comprehensive Revisions of Implementation Plans
  - Clarify that the URP line starts at 2000-2004, for every implementation period.
  - Clarify that visibility conditions on the clearest 20% of days must show no deterioration from conditions in 2000-2004.
  - Require an enhanced analytical obligation when the RPG for the 20% most impaired days is not on or below the URP line.
    - If the goal for the 20% most impaired days provides for a slower rate of visibility improvement than that needed to attain natural conditions by 2064, the state must demonstrate that there are no additional control measures for sources reasonably anticipated to contribute to visibility impairment in the Class I area that are reasonable to include in the LTS.
    - This requirement applies to the state with the Class I area and all contributing states.
  - In evaluating RPGs, EPA will consider the controls and technical demonstration provided by a contributing state with respect to its LTS in addition to those developed by the state containing the Class I area with respect to its own LTS.
  - Require that SIPs contain information needed to make them also serve as progress reports.
    - The only significant additional information required in a progress report but not explicitly required in a SIP revision is the requirement to report on the trend in visibility over the whole period since the baseline period of 2000-2004. The EPA therefore proposes to add to the requirement for SIP revisions a requirement to include this trend information.
  - Update terminology related to smoke management programs and basic smoke management practices.

# Proposed RHR Revisions



- Changes to Definitions and Terminology Related to How Days Are Selected for Tracking Progress
  - Clarify that “visibility impairment” means the deviation from natural visibility and therefore is due to anthropogenic impacts.
  - Revise definitions in §51.301 to make clear that the 20% most impaired days should be selected based on anthropogenic visibility impairment rather than based on the days with highest deciview values due to impacts from all types of sources.
    - EPA also seeks comment on an alternative proposal that would allow states to select the 20% haziest days (as in the first planning period).
    - The upcoming draft guidance document will include detailed recommendations related to the proposed new approach.
  - Continue to use the 20% of days with the lowest total deciviews (i.e., “clearest days”) rather than the 20% least impaired days for purposes of tracking any adverse trend in visibility on clear days.

# Proposed RHR Revisions



- Impacts on Visibility from Anthropogenic Sources Outside the U.S.
  - The EPA is not convinced that such impacts can be estimated with sufficient accuracy at this time, in part due to great uncertainty about past, present and future emissions from sources in most other countries.
  - However, it may be that by the time some future SIP revisions are to be prepared (for some states possibly as early as when they are preparing their second SIP), methods and data for estimating international impacts will be substantially more robust.
  - The EPA is requesting comment on a proposed provision that would allow states with Class I areas significantly impacted by international emissions to make an adjustment to the URP with specific approval by the Administrator.
    - The adjustment would consist of adding to the value of natural visibility conditions (the 2064 end point) an estimate of international impacts, only for the purpose of calculating the URP and only if the Administrator determines the international impacts from anthropogenic sources outside the U.S. were estimated using scientifically valid data and methods.

# Proposed RHR Revisions



- Impacts on Visibility from Wildland Fires Within the U.S.
  - Fires on wildlands can significantly impact visibility in some Class I areas on some days and have lesser impacts on a greater number of days.
  - The proposal discusses whether measures to reduce emissions from wildland wildfire and wildland prescribed fires may be needed for reasonable progress towards natural visibility conditions.
  - The proposal also discusses whether smoke from fires might cause the projected RPG to be above the URP line, thus triggering the additional analytical requirement to show that there are no additional measures that are necessary for reasonable progress.
    - We expect that the revised approach to selecting the 20% “worst days” will prevent wildfires from causing the RPG to be above the URP line.
    - We are proposing rule language to allow the Administrator to approve a state’s proposal to adjust the URP to avoid subjecting a state to the (previously mentioned) additional analytical requirement due only to the impacts of specific types of wildland prescribed fire.

# Proposed RHR Revisions



- Clarification of and Changes to the Required Content of Progress Reports
  - Add a number of explanatory sentences to better indicate what “current visibility conditions” are and how to calculate them.
  - Clarify that changes in visibility impairment for the most impaired and clearest days, changes in emissions of pollutants contributing to visibility impairment, and assessments of any significant changes in anthropogenic emissions that have occurred are to be given over the period since the period addressed in the most recent progress report or SIP revision (instead of the current rule’s “past 5 years”).
  - Revise and clarify the obligation of states regarding emissions inventories.
    - Explain clearly the most recent year through which the emissions analysis must be extended, by sector.
    - Make clear that if emission estimation methods have changed from one reporting year to the next, states need not backcast (i.e., use the newest methods to repeat the estimation of emissions in earlier years) in order to create a consistent trend line over the whole period.
  - Require states to report whether significant changes in anthropogenic emissions that have happened were anticipated in the most recent SIP.
  - Require a state whose LTS includes a smoke management program for prescribed fires on wildland to include a summary of the most recent periodic assessment of the smoke management program.
  - Relieve states of the need to review their visibility monitoring strategies within the context of progress reports.

# Proposed RHR Revisions



- Changes to RAVI Provisions

- The EPA feels it is time to update the substantial amount of confusing and outdated language within the current visibility regulations, including seemingly overlapping and redundant requirements.
  - Many advances in ambient monitoring, emissions quantification, emission control technology and meteorological and air quality modeling have occurred since the RAVI provisions were originally promulgated in 1980.
  - The RAVI provisions have received few amendments over the years. In 1999, the changes to integrate the RAVI assessment and mitigation provisions with the new regional haze program requirements were limited to putting the two separately designed programs on the same recurring schedule.
- We propose to:
  - Expand the RAVI requirements to all states and territories (with the exceptions of Guam, Puerto Rico, American Samoa and the Northern Mariana Islands), making the geographic coverage of the RAVI provisions and the regional haze provisions the same.
  - Eliminate recurring requirements on states.
  - Remove existing FIP provisions that require the EPA to periodically assess whether RAVI is occurring and to respond to FLM certifications.
  - Clarify and strengthen the existing provisions under which states must address RAVI when an FLM certifies that such impairment is occurring in a particular Class I area due to a single source or a small number of sources.
    - Proposed rule text is provided for three alternative approaches to the time schedule for state response to an FLM certification of RAVI.
  - Edit various portions of §§51.300-308 to make them clearer and more compatible with each other.

# Proposed RHR Revisions



- Changes to FLM Consultation Requirements
  - Create a stand-alone requirement that states must consult with FLMs regarding progress reports.
    - This is needed if progress reports are not SIP revisions, because at present the FLM consultation requirements are applicable only to SIP revisions.
  - Add 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.
    - The current requirement for consultation at least 60 days prior to a public hearing may not occur sufficiently early in the state’s planning process to meaningfully inform the state’s development of the LTS.
    - A consultation opportunity that takes place no less than 120 days prior to a public hearing or other public comment opportunity would be deemed to have been “early enough.”

# Proposed RHR Revisions



- Extension of Next Regional Haze SIP Deadline from 2018 to 2021
  - Propose a one-time schedule adjustment such that SIPs for the second planning period are due July 31, 2021 (currently July 31, 2018).
    - The end date for the second planning period would remain 2028.
      - That is, the focus of state planning would be emission reduction measures that should be underway by 2028, as required by the current rule.
    - The additional 3 years would allow states to coordinate regional haze planning with that for other federal programs.
      - Such programs include the Mercury and Air Toxics Standards, the 2010 1-hour SO<sub>2</sub> National Ambient Air Quality Standards (NAAQS) and the 2012 annual fine particle (PM<sub>2.5</sub>) NAAQS.

# Proposed RHR Revisions



- Changes to Scheduling of Regional Haze Progress Reports
  - Propose to adjust interim progress report submission deadlines.
    - Under the current rule, progress reports are required to be submitted 5 years after submission of the first SIP revision.
      - But because states submitted first SIP revisions on dates spread across about a 3-year period, many of the due dates for progress reports currently do not fall mid-way between the due dates for SIP revisions, as the EPA initially envisioned that they would.
    - Propose that second and subsequent progress reports would be due by January 31, 2025, July 31, 2033, and every 10 years thereafter.
    - This would limit the requirement for separate progress reports to mid-way between SIP revisions.

# Proposed RHR Revisions



- Changes to the Requirement that Regional Haze Progress Reports be SIP Revisions
  - Propose to remove the requirement for progress reports to take the form of SIP revisions.
    - The EPA is proposing these changes because it believes these reports are not the kind of state submissions for which the formality of a SIP revision is warranted.
  - States would still be required to include the required progress report elements now listed in §51.308(g).
    - Also, §51.308(h) would continue to require that at the same time the state is required to submit a progress report, it must also take one of four listed actions concerning whether the SIP is adequate to achieve established goals for visibility improvement.
  - States would be required to consult with FLMs and obtain public comment on progress reports before submission to EPA.
  - These progress reports would be reviewed by EPA, but EPA would not formally approve or disapprove them.
    - EPA intends to create a system of logging progress reports as they are received, and making them available to the public.

# Proposed RHR Revisions



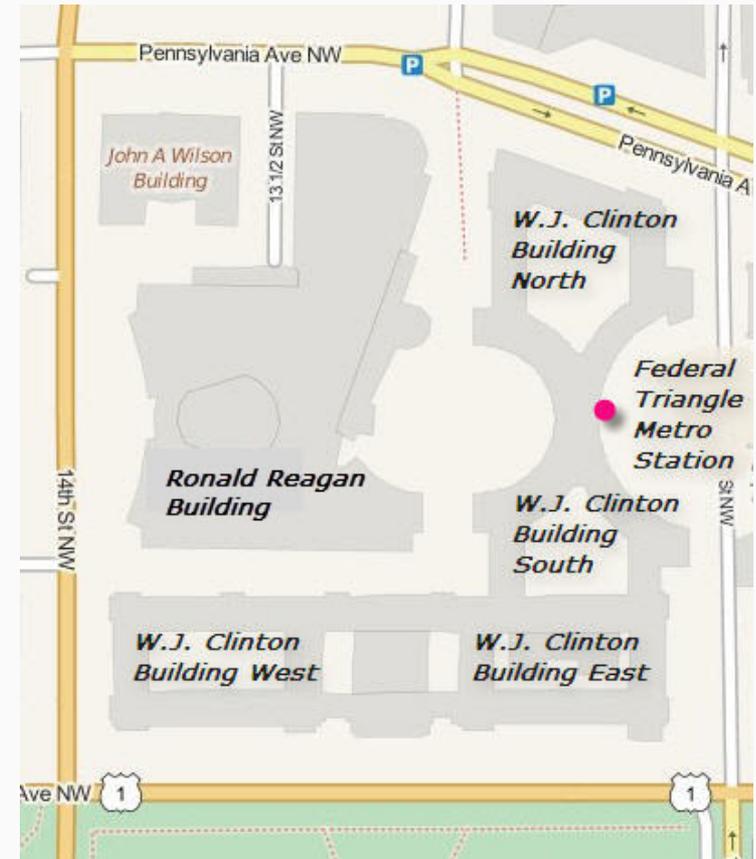
- Changes to Requirements Related to the Grand Canyon Visibility Transport Commission
  - Section 51.309 has limited applicability going forward.
    - Its provisions apply only to 16 Class I areas covered by the Grand Canyon Visibility Transport Commission Report.
    - Its provisions apply only to the first regional haze implementation period (i.e., through 2018).
    - Only three states relied on §51.309.
  - Nevertheless, certain conforming amendments at this time are appropriate to avoid confusion going forward, including:
    - Updated cross-references.
    - Changes to complement the proposed amendments that will no longer require progress reports to be considered SIP revisions.
      - Preserve the existing requirement that the progress reports due in 2013 were to take the form of SIP revisions, but direct the reader to the provisions of §51.308(g) for subsequent progress reports.
    - Correction of a typographical error.

# Public Hearing



The EPA will hold a public hearing at 9:00 AM on May 19, 2016 at:

U.S. Environmental Protection Agency  
William Jefferson Clinton East Building  
(WJC East), Room 1117A  
1201 Constitution Avenue, NW  
Washington, D.C. 20004



# Public Hearing



Details are being finalized for the EPA to hold an additional public hearing at 9:00 AM on June 1, 2016 at:

US EPA, Region 8  
1595 Wynkoop Street  
Denver, CO 80202

Full hearing details will be posted on EPA's Visibility and Regional Haze web site at <http://www.epa.gov/visibility> and published in the Federal Register.



# How to Comment



Comments, identified by Docket ID No. EPA-HQ-OAR-2015-0531, will be accepted for 60 days after publication in the *Federal Register* and may be submitted by one of the following methods:

- [www.regulations.gov](http://www.regulations.gov)
- Email to [a-and-r-Docket@epa.gov](mailto:a-and-r-Docket@epa.gov)
- Fax to (202) 566-9744
- Mail to:  
Air and Radiation Docket and Information Center, Environmental Protection Agency, Mail Code: 2822T, 1200 Pennsylvania Ave., NW, Washington, D.C. 20460
- Hand Delivery or Courier to:  
Air and Radiation Docket and Information Center, 1301 Constitution Ave., NW, Room 3334, Washington, D.C. 20004

# For More Information



- This proposed rule and other background information are also available electronically at <http://www.regulations.gov>, the EPA's electronic public docket and comment system, or on EPA's Visibility and Regional Haze web site at <http://www.epa.gov/visibility>.
- For further information about the proposed rule, contact:

Chris Werner

EPA Office of Air Quality Planning and Standards

(919) 541-5133

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