

## Assessing Reasonable Progress for Regional Haze in the WRAP Region

The Western Regional Air Partnership (WRAP) is seeking contractor assistance to assess reasonable progress for regional haze in the Class I areas in the WRAP Region. The primary objectives of this work are to: (1) develop a methodology for addressing the four reasonable progress factors required by Section 169A of the Clean Air Act, and (2) apply the methodology for possible control strategies intended to improve visibility. This information will be used by WRAP States to support the completion of State Implementation Plans for regional haze.

### Scope of Work

Section 169A of the Clean Air Act states that “Congress declares as a national goal the prevention of any future, and the remedying of any existing impairment of visibility in mandatory class I Federal areas which impairment results from manmade air pollution.” States are required to “make reasonable progress toward meeting the national goal”. In determining whether a given implementation plan provides for reasonable progress, states shall consider the following four factors:

- (1) costs of compliance,
- (2) time necessary for compliance,
- (3) energy and non-air quality environmental impacts of compliance, and
- (4) remaining useful life of any existing source subject to such requirements.

Contractor assistance is needed in examining these four factors needed to determine reasonable progress for regional haze for the initial implementation period (i.e., by 2018). The tasks associated with this project are as follows:

- (1) Review existing information and available guidance documents, including the EPA's June 1, 2007 “Guidance for Setting Reasonable Progress Goals Under the Regional Haze Program” <http://www.wrapair.org/forums/amc/documents/RPguidance.pdf>. Based on this information, provide a final work plan, with technical activities, schedule, and deliverables.
- (2) Identify appropriate emission control options for priority source categories and sources for the following pollutants: Elemental Carbon (EC), Organic Carbon (OC), Fine Particulate Matter (PM<sub>2.5</sub>), Coarse Particulate Matter (PM<sub>10</sub> – PM<sub>2.5</sub>), Sulfur Dioxide (SO<sub>2</sub>) and Nitrogen Oxides (NO<sub>x</sub>). The list of priority source categories and sources will consist of the following:
  - (a) Sources Categories
    - i. Reciprocating Internal Combustion Engines and Turbines
    - ii. Oil & Gas Exploration & Production Field Operations
    - iii. Natural Gas Processing Plants
    - iv. Coal or Oil Fired Industrial Boilers (six category bins)
      1. By Size Category
        - a. Up To and Including 200 MM Btu/Hr
        - b. Greater Than 200 MM Btu/hr
      2. Then by Age Category
        - a. Pre PSD Regulations (pre August 7, 1977)
        - b. Post PSD Regulations (August 7, 1977 through December 31, 1990)
        - c. Post Clean Air Act Amendments of 1990 (1991 and beyond)

- v. Wood Fired Industrial Boilers
- vi. Gas Fired Industrial Boilers
- vii. Cement Manufacturing Plants
- viii. Sulfuric Acid Manufacturing Plants
- ix. Pulp & Paper Plant Lime Kilns
- x. Petroleum Refinery Process Heaters

(b) Individual State Sources determined by the WRAP and its Member States [itemized list is contained in the spreadsheet; 2008-12\_4 Factor Point Source List (RV 1).xls]

- 1) Colorado
  - i. Electric Generating Units
  - ii. Industrial Boilers
  - iii. Petroleum Refinery
  - iv. Cement Manufacturing Plants
- 2) New Mexico
  - i. Petroleum Refineries
- 3) North Dakota
  - i. EGU's
  - ii. Natural Gas Processing Plants including reciprocating internal combustion engines, amine units and sulfur recovery units
  - iii. Coal Gasification Plant
- 4) South Dakota
  - i. Electric Generating Unit
  - ii. Cement Manufacturing Plant
- 5) Wyoming
  - i. Electric Generating Units
  - ii. Cement Manufacturing Plant

- (3) Develop a methodology for conducting appropriate economic and engineering analyses to assess the costs, compliance timeframe, energy and non-air quality environmental impacts, and remaining useful life for affected sources. When developing control costs, the contractor should use the most current information available. There may be differences in the methodology for evaluating a source category versus an individual facility.

The methodology should consider, but should not necessarily be limited to, AIRCONTROLNET and other similar information. Suggestions for the most complete, up-to-date, and reliable tools and databases are encouraged.

- (4) Evaluate the control strategy options (identified in Task 2) by applying the methodology for the four factor analysis (developed in Task 3). The result of this evaluation will be a report on the four factors for each control strategy option. Appropriate comparisons and information summaries should be provided.
- (5) Provide a report on the methodology and implementation of the four factors for each control strategy option. The report for the Source Categories will be a general report provided to the WRAP for general distribution and evaluation by all interested WRAP Stakeholders. The contractor will provide a draft of the general report to the states for review and comment. This may include the contractor's participation in a conference call with the WRAP and the states.

The reports for itemized State Sources will be compiled for each Individual State and will remain a confidential report between the WRAP and that particular affected State. The contractor will consult with each of the WRAP member states that have itemized State Sources in regard to methodologies, summaries of the benefits that result from various control options and other information relating to the task that may be useful to the WRAP or the state in its SIP development process. This consultation may also include the contractor's participation in conference calls with the WRAP and the affected states.

**Schedule**

The contractor will develop a schedule for completing the five (5) tasks listed in this Scope of Work and provide the draft Final Reports within 3 months of the date of contract award.