



Joint Rocky Mountain Phase III Oil and Gas Emissions Inventory Project January 2008

Overview

The Independent Petroleum Association of Mountain States (IPAMS) is sponsoring the development of a Phase III regional oil and gas emission (O&G) inventory for the Intermountain West, jointly with the Western Regional Air Partnership (WRAP), building on the WRAP Phase I¹ and Phase II² inventory projects. The result will be an accurate, comprehensive criteria pollutant emissions inventory for all point and area sources associated with the exploration and production of O&G in the major basins throughout the six-state study region for year 2006 as well as future projection years.

IPAMS represents independent O&G operators throughout the Intermountain West, and is coordinating participation and data collection from producers in Colorado, Montana, New Mexico, North Dakota, Utah and Wyoming. IPAMS participated in the development of the previous Phase II project, and through this effort has identified the need to improve both the regional WRAP inventory and inventories for individual states and tribes to reflect more detailed information on emissions from exploration and production activity.

Scope of Work

This effort would focus on surveys of producers to update and gather data used to calculate emissions of the criteria pollutants – NO_x, CO, VOCs, PM and SO_x. ENVIRON Corporation is working for IPAMS to prepare and analyze the surveys, and calculate and report the emission inventories for each basin. Buys and Associates is working for IPAMS as their technical lead and to assist medium and smaller operators with completing their surveys.

The project work will include revised projections to future years including 2018, to be used for emissions analysis and haze/criteria pollutant air quality modeling purposes by WRAP, state, tribal, and federal agencies, or other interested parties. A detailed mechanism for O&G production companies to annually report data will also be created to provide a consistently up-to-date emissions inventory. The project started in November 2007 with the Denver-Julesburg (D-J) and Uinta basins. The project scope of work and schedule are divided into three overlapping parts:

- 1) D-J Basin in northern Colorado, part of the Denver area ozone nonattainment planning area;
- 2) Uinta Basin in northeast Utah; to support the BLM's Uinta Basin Air Quality Study; and
- 3) All other Rocky Mountain basins³ with significant O&G development and production activity.

Process and Schedule

For each basin, ENVIRON will work with the air regulatory agencies to verify and update the Phase II emissions for permitted O&G point sources to the 2006 base year. Producers will provide detailed area source data via surveys to supplement the point source data. Reviewing permitted point source data and applying the area source survey results will produce a complete inventory of criteria pollutants covering all O&G activities in each basin. Work products consisting of a technical memo for each basin will reside on the WRAP website, on a Phase III project page.

¹ http://www.wrapair.org/forums/ssjf/documents/eictts/OilGas/WRAP_Oil&Gas_Final_Report.122805.pdf

² http://www.wrapair.org/forums/ssjf/documents/eictts/OilGas/2007-0_Phase_II_O&G_Final_Report_v10-07.pdf

³ The study will cover the D-J, Uinta, San Juan, Piceance, Green River, Powder River, Paradox, Williston, Wind River, Big Horn, and Great Plains basins.

Phase III Project Schedule

December 2007	Project start, analyze Colorado point source data for D-J Basin, draft surveys
January 2008	Collect and process D-J Basin surveys - calculate draft baseline emissions Prepare and distribute Uinta Basin surveys Uinta Basin Air Quality modeling study meeting, Denver 1/24/08
February	Develop future year projection methodology Finalize D-J Basin baseline inventory, provide files to Colorado DPHE for northern Colorado ozone base year modeling Collect and process Uinta surveys
March	Calculate D-J Basin future year emissions; provide files for northern Colorado ozone future year modeling WRAP conference call to review D-J baseline and future years' emissions inventories with interested parties Complete baseline Uinta Basin emissions, and provide files for Uinta Basin AQ modeling study
April	Complete future year Uinta emissions projections, and provide files for Uinta Basin AQ modeling study. Provide emissions files for Uinta Basin AQ modeling study WRAP conference call to review baseline and future years' Uinta emissions inventories with interested parties
April through June	Prepare and distribute surveys for remaining basins
July through December	Collect and process surveys for remaining basins Develop baseline and future year projections for remaining basins WRAP conference calls for each basin to review baseline and future years' emissions inventories with interested parties Develop annual reporting tool for participating companies
January 2009	All inventories complete for Phase III basins Draft project report
February	Final project report Phase III emissions files for future modeling

Deliverables

Collection/analysis of producer survey results in each basin, based on information about number and type of equipment and activity levels;
 Updated permitted point source data for each basin;
 Basin-, tribal-, and county-level criteria pollutant emissions inventory data for 2006 and future projection years, including an annual update reporting tool, improving on the methodology used in previous WRAP inventories; and
 Complete regional criteria pollutant emissions for the O&G sector.

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