

BOEM ENVIRONMENTAL STUDIES PROGRAM: ONGOING STUDIES

Region: Gulf of Mexico, OCS

Title: Year 2014 Gulf-wide Emissions Inventory Study (GM-13-02)

Planning Area(s): Western and Central Gulf of Mexico

Total Cost: \$ 698,748 **Period of Performance:** FY 2013-2016

Conducting Organization: Eastern Research Group, Inc.

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Description:

Background: The U.S. Environmental Protection Agency (USEPA) has issued a new National Ambient Air Quality Standards (NAAQS) for the 8-hour ozone of 75 parts per billion (ppb), effective May 27, 2008. States must make recommendations to USEPA no later than March 2009 for areas to be designated attainment, nonattainment, and unclassifiable. USEPA will then issue final designations no later than March 2010, unless there is insufficient information to make these designation decisions. In that case, USEPA will issue designations no later than March 2011. States must submit State Implementation Plans (SIPs) detailing how they will reduce pollution to meet the standards by a date that USEPA will establish in a separate rule. That date will be no later than three years after USEPA's final designations. If USEPA issues designations in 2010, then these plans would be due no later than 2013.

The changes to the ozone NAAQS standard and the continuing needs of addressing ongoing particulate matter (PM_{2.5}) standards and regional haze regulations may require state agencies to perform air quality photochemical modeling for ozone and regional haze for use in their SIPs. In order to conduct this modeling, emission inventories must be generated as inputs to the models. The 2014 gulf-wide emissions inventory will be available to assist states in conducting modeling for additional SIP demonstrations to meet the new requirements. The collection and compilation of an air emissions inventory is one of the tasks that BOEM conducts to assure coordination of air pollution control regulations between Outer Continental Shelf (OCS) offshore sources and state's sources onshore (as per Section 328(b) of the 1990 CAAA).

The 1990 Clean Air Act Amendments (CAAA) specifies that states are to prepare emission inventories every three years, starting in 1996. The proposed 2014 gulf-wide emissions inventory will correspond with the next USEPA onshore periodic emissions inventory. BOEM has completed a 2000, 2005, and 2008 gulf-wide emissions inventories, and is currently developing a 2011 gulf-wide emissions inventory. By conducting a 2014 gulf-wide emissions inventory, BOEM is working concurrently with USEPA's routine, 3 year reporting cycle.

USEPA has also issued the Final Mandatory Reporting of Greenhouse Gases Rule due to the FY2008 Consolidated Appropriations Act (October 30, 2009). OCS facilities that emit 25,000 metric tons or more per year of greenhouse gases emissions in a CO₂ equivalent must submit annual reports to the USEPA for carbon dioxide (CO₂), methane (CH₄), and nitrous oxide (N₂O).

The proposed 2014 inventory will include these greenhouse gases emissions that will assist the OCS operators with their mandatory reporting of greenhouse gases to USEPA. Operators can use GOADS greenhouse gas emissions to report to USEPA, according to Subpart W.

Lastly, the inventory will be used to enhance the BOEM NEPA process by providing an accurate inventory to compute emission trends and to perform necessary air quality impact assessments.

Objectives: The purpose of this study is to develop a year 2014 gulf-wide air emissions inventory of OCS sources (platform and non-platform), including estimates of carbon monoxide (CO), sulfur dioxide (SO₂), nitrogen oxides (NO_x), particulate matter (PM₁₀ and PM_{2.5}), hydrocarbons (VOC), carbon dioxide (CO₂), methane (CH₄), and nitrous oxides (N₂O) to support states in writing their SIPs, to support operators in their mandating reporting of greenhouse gases to the USEPA, and to support BOEM in their NEPA process and impact assessments.

Methods: The contractor will collect and compile emissions activity data from BOEM regulated OCS facilities and vessels. Facilities include all installations (e.g., production platforms) or devices having the potential to emit any air pollutant, as above. The platform activity data will be collected using the BOEM emissions activity software, Gulf-wide Offshore Activity Data System (GOADS). In addition, emissions from vessels used to support facilities (non-platform sources) will be collected using surveys or other appropriate sources. The contractor will quality control and assure all data collected, including making sure the vessels data collected in BOEM federal waters is consistent with the vessels data in states waters. The Contractor will calculate a total emissions inventory, by pollutant, using the existing Database Management System, which multiplies the activity data contained in GOADS times the appropriate emissions factors. The contractor will generate emissions inventory databases that will comply with USEPA current formats and will be approved by BOEM.

Products: Products received under this study will include a final report and final databases, including a platform and non-platform database in the USEPA's National Emissions Inventory (NEI) formats.

Importance to BOEM: First, the collection and compilation of an air emissions inventory is one of the tasks that BOEM conducts to assure coordination of air pollution control regulations between OCS offshore sources and state's sources onshore. Secondly, this emissions inventory will be useful for compliance with USEPA's Greenhouse Gas Reporting Rule. Finally, BOEM will also use the 2014 emissions inventory to support the NEPA process when preparing Environmental Impact Statements and Assessments, and for emissions trends and impacts analysis.

Current Status: Work is ongoing for calculating both the platform and non-platform emissions datasets. A summary of companies that have not requested static data files was recently provided to BOEM. BOEM sent an email to the Offshore Operating Committee to please request static data for the BOEM effort, prompting several companies to request this information. Under BOEM's NTL 2014-G01, operators must submit all activity data to BOEM by April 15, 2015. ERG has received the first of the PortVision 2014 Automatic Identification System (AIS) data sets (vessel tracking data in the GOMR), and has reviewed it to confirm the content was

acceptable. Work was completed on the work plan for the hazardous air pollutant (HAP) “scoping” emissions inventory.

Final Report Due: July 2016

Publications: None at this time

Affiliated WWW Sites: <http://www.boem.gov/Gulfwide-Offshore-Activity-Data-System-GOADS-2014/>

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