



ANY QUESTIONS?





The Year 2017 Emissions Inventory Study

BOEM Contract No. M16PC00012

Darcy Wilson

Eastern Research Group, Inc.

BOEM COR: Holli Ensz





Objectives

- Develop a calendar year 2017 Gulfwide air pollutant emissions inventory of OCS sources (platform and non-platform sources)
- Conduct an emissions trends analysis of the results
- Include hazardous air pollutant (HAPs) for all platform and non-platform sources
- May include air quality support for Federal waters in the North Slope Bureau of the State of Alaska





Introduction

- The *Year 2017 Emissions Inventory Study* is BOEM's sixth consecutive air quality emissions inventory study for the Gulf of Mexico OCS
- The inventory cycle corresponds with the USEPA's onshore periodic emissions inventory
- Used by states, Regional Planning Organizations, and BOEM for air quality assessments
- Used in the USEPA's Greenhouse Gas Reporting Program





Data Collection: Platforms

https://www.boem.gov/2017-Gulfwide-Emission-Inventory/

- Gulfwide Offshore Activities Data System (GOADS-2017)
- User's Guide, Installation Instructions, and Frequently Asked Questions (FAQs)
- Activity data file submittal required by April 17, 2018
- Support services provided throughout 2017
 - GOADS-2014 "static" data files provided to reduce data entry
 - Respond to operator questions regarding reporting applicability, GOADS usage, and error messages received





Platform Sources

- Amine units
- Boilers
- Diesel engines
- Drilling equipment
- Flares
- Fugitives
- Glycol dehydrators
- Loading losses
- Losses from flashing

- Mud degassing
- Natural gas engines
- Natural gas, diesel, and dual fuel turbines
- Pneumatic pumps
- Pressure/level controllers
- Storage Tanks
- Vents





Develop Platform Emission Estimates

- Extensive QA/QC of GOADS monthly activity data
- Identification and outreach to non-reporters
- Initial review of estimates by operators and lessees

- Update Gulfwide DBMS to calculate emission estimates
- Estimate amine unit and glycol dehydrator emissions outside of DBMS
- Extensive QA/QC of estimates
- Final report and databases





Non-platform Sources

- Oil/Gas Production Sources
 - Drilling rigs
 - Pipelaying operations
 - Support helicopters
 - Support vessels
 - Survey vessels
 - Well stimulation vessels
- Non-Oil/Gas Production Sources
 - Biogenic and geogenic sources
 - Commercial fishing vessels
 - Commercial marine vessels
 - LOOP
 - Military vessels
 - Recreational vessels
 - Vessel lightering





Data Collection: Non-platform Sources

- Oil/gas production source activity data to be obtained from:
 - BOEM
 - PortVision Automatic Identification System (AIS) data
 - Information Handling Service (IHS) Register of Ships
 - Rigzone drilling rig attribute data
 - Helicopter Safety Advisory Conference safety report





Data Collection: Non-platform Sources

- Non-oil/gas production source activity data obtained from:
 - PortVision AIS data
 - IHS Register of Ships
 - NOAA National Marine Fisheries Service
 - U.S. Coast Guard





Develop Non-platform Emission Estimates

- Data entry and manipulation QA/QC
- QA/QC of vessel activity data
 - IHS vessel matching
 - Vessel locations, kW hours of operation, etc.
- QA/QC of helicopter data

- Updated emission factors
- Spatially allocate emissions to lease blocks and areas
- Comparison of estimates to 2014 inventory





Emissions Trends Analysis

- Platform and non-platform sources and emissions will be compared with the 2005, 2008, 2011, and 2014 inventory years
- Goals are to assess the impacts of:
 - Activity/production levels by water depth and planning area on emissions
 - Changes in inventory methodologies
 - Improvements in emission factors





HAPs Scoping Task

- Develop emission estimates for all GOADSreported production platforms
- Develop emission estimates for oil/gas related vessels and helicopters
- HAPs listed in the 1990 Clean Air Act Amendments





ANY QUESTIONS?



