READ ME file for the 2021 Platform Source MS Access Files

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ACRONYMS AND ABBREVIATIONS

BOEM	Bureau of Ocean Energy Management
CRIT	Criteria pollutants
EPA	Environmental Protection Agency
GHG	Greenhouse gas
HAP	Hazardous air pollutant
LDAR	Leak Detection and Repair
LAT	Latitude
LON	Longitude
MS	Microsoft
OPD	Official Protraction Diagram
OCS	Outer Continental Shelf
OCS AQS	Outer Continental Shelf Air Quality System

INTRODUCTION

The 2021 OCS emissions inventory for platform sources is a comprehensive inventory covering criteria pollutants (CRIT), greenhouse gases (GHG), and hazardous air pollutants (HAP). The 2021 platform emissions inventory was developed using BOEM's OCS AQS web-application where operators and their authorized consultants entered the necessary information to calculate and submit their emissions inventories to BOEM. Upon submittal to BOEM, the 2021 emissions data underwent an extensive quality assurance and quality control (QA/QC) review before being finalized. The MS Access file referenced above represents the published final emissions data for the 2021 Gulf of Mexico (GOM) emissions inventory.

The scope of the 2021 OCS Inventory effort was to compile 2021 base year activity data and emissions for all active platforms in the Gulf of Mexico on the Outer Continental Shelf (OCS). While OCS also includes the Alaska region, as of the 2021 reporting year there are no active platforms located there.

WHAT IS PROVIDED HERE?

The platform emissions inventory MS Access database files were exported using the Outer Continental Shelf Air Quality System (OCS AQS) software for the 2021 OCS Emissions Inventory and were published by BOEM on their website for review and use by regulatory agencies, air quality modelers, environmental interest groups, and industry. This READ ME file provides important information integral to the use of these files.

The database files are provided in MS Access 365 format. Due to the size restrictions of the MS Access database, two .ZIP archives were generated to deliver the data. Each .ZIP archive contains one MS Access .MDB file, each with one table of platform and emissions data for a group of pollutants. The following files are provided:

- 2021_Platform_Inventory_CAP_GHG.zip
- 2021_Platform_Inventory_HAP.zip

HOW IS THE DATA FILE ORGANIZED?

The 2021 OCS Emissions Inventory for platform sources is organized into a single Access table of monthly emission records. Each record contains the supporting platform, equipment, process, control (if applicable) and release point information.

Table 1 provides a list of all parameters included in the database as well as their field descriptions.

WHAT SOFTWARE DO I NEED TO USE THE DATA FILE?

The files are provided in the Microsoft Access 365 file format *.mdb. MS Access provides a reliable, commonly used application which can be used to view the data and perform additional queries and reporting operations external to OCS AQS.

HOW CAN I REVIEW OR USE THE FILE?

The files can be accessed using MS Access or other available database file readers that can open MS Access files with support for *.mdb file extensions. Emission estimates can be ordered, filtered, or summarized by operating company, platform, block, area**,** pollutant, and equipment type including sub totals or summed annually. For users that have working knowledge of GIS applications, platform emissions can be plotted to evaluate geospatial patterns.

Table 1: Descriptions of Database Parameters (Column Headers)

Field Name	Description
AREA_BLOCK	Official Protraction Diagram (OPD) Area and Outer Continental Shelf (OCS) Block
FACILITY_ID	BOEM Complex ID and BOEM Structure ID
COMPLEX_ID	A unique identifier code that is assigned by BOEM to a group of related structures prior to construction
STRUCTURE_ID	A unique number assigned by BOEM to a specific structure within a complex
AREA	OPD area in which the structure is located
BLOCK	OCS block in which the structure is located
NAME	A name or identifier that denotes a structure within its Area/Block
LEASE_NUMBER	The lease number issued by BOEM for the construction and operation of an offshore structure
NAICS_CODE	North American Industry Classification System Code
PLATFORM_NAME_EPA	The name of the facility
COMPANY_NUMBER_BOEM	ID assigned by BOEM for the designated operator of the platform
COMPANY_NAME	Name of the company operating the platform
DIST_SHORE_MI	The shortest distance in miles to the U.S. shoreline
WATER_DEPTH _FT	The distance in feet from mean sea level to the mud line
SITE_DESCRIPTION_EPA	OPD Area abbreviation, OCS Block number, and the structure name
COMPANY_ADDRESS	Street address for the company operating the platform
COMPANY_CITY	City for the company operating the platform
COMPANY_STATE	State for the company operating the platform
COMPANY_ZIP	Zip code for the company operating the platform
MAJOR_STRUCTURE_FLAG_TIMS	An indicator of whether a platform contains at least 6 completions or contains more than 2 pieces of production equipment
STRUCTURE_TYPE_TIMS	An indicator of the type of structure
EMISSION_UNIT_ID	Unit ID unique to the platform on which it is located
EMISSION_UNIT_DESCRIPTION_ALT	A description of the emission unit

Field Name	Description
EQUIP_TYPE	Type of equipment
EQUIP_ID	Unique ID assigned to the equipment by the platform operator
EQUIP_MFG	Manufacturer of the equipment
EQUIP_MODEL	Model of the equipment
MAX_HP_NG	The manufacturer’s maximum rated horsepower output for natural gas-fired equipment
MAX_HP_DIESEL	The manufacturer’s maximum rated horsepower output for diesel-fired equipment
MAX_FUEL_USAGE_RATE_NG	The manufacturer’s maximum rate of natural gas fuel usage
MAX_FUEL_USAGE_RATE_NG_UNITS	Unit of measure for the manufacturer's maximum rate of natural gas fuel usage
MAX_FUEL_USAGE_RATE_DIESEL	The manufacturer’s maximum rate of diesel fuel usage
MAX_FUEL_USAGE_RATE_DIESEL_UNITS	Unit of measure for the manufacturer's maximum rate of diesel fuel usage
MAX_HEAT_INPUT_RATE_MMBTU_PER_HR	The manufacturer’s maximum rated heat input rate
EMISSION_PROCESS_ID_ALT	* Emission process ID
EMISSION_PROCESS_DESCRIPTION_ALT	* A description of the emission process
SCC	EPA Source Classification Code
HEAT_CONTENT	The heat content of a fuel
HEAT_CONTENT_UNITS	Unit of measure for the heat content of fuel
SULFUR_CONTENT	The sulfur content of a fuel
SULFUR_CONTENT_UNITS	Unit of measure for the fuel sulfur content
FLARE_GAS_H2S_PPM	Flare gas hydrogen sulfide content (parts per million)
FLARE_SMOKE	Flare smoke condition
PRIMARY_PCT_CONTROL_EFFICIENCY	Combustion efficiency of the flare (%)
FLARE_GAS_HEAT_CONTENT	The heat content of flared gas
FLARE_GAS_HEAT_CONTENT_UNITS	Unit of measure of the heat content of flare gas
EMISSION_RELEASE_POINT_ID_ALT	Release point ID unique to the platform where it is located
EMISSION_RELEASE_POINT_DESCRIPTION_ALT	A description of the release point
EMISSION_RELEASE_POINT_TYPE	The code for physical configuration of the release point (1 = fugitive, 2 = vertical)

Field Name	Description
EMISSION_DESTINATION	A description of emission destination (ex. Routed to system)
STACK_HEIGHT_FT	The height (in feet) of the release point
STACK_DIAMETER_FT	The diameter (in feet) of the release point
OUTLET_INNER_DIAMETER_IN	The inner diameter (in inches) of the release point
EXIT_GAS_TEMPERATURE_F	The temperature of an exit gas stream (degrees Fahrenheit)
EXIT_GAS_VELOCITY_FT_PER_SEC	The velocity of an exit gas stream (feet per second)
EXIT_GAS_FLOW_RATE_CUFT_PER_SEC	Numeric value of stack gas flow rate in (actual cubic feet per second)
OUTLET_ORIENTATION_DEGREES	The deviation of the outlet from vertically upward (0 indicates an upward pointing outlet; 180 indicates a downward pointing outlet)
X_COORDINATE	An east-west coordinate that defines the position of an offshore structure (decimal degrees)
Y_COORDINATE	A north-south coordinate that defines the position of an offshore structure (decimal degrees)
XY_COORDINATE_TYPE	The type of coordinates reported (ex. LATLON)
MONTH	Month when emissions occurred
START_DATE	Start date of the period in which reported emissions occurred
END_DATE	End date of the period in which reported emissions occurred
OPERATING_HP	The operating horsepower during the survey period
FUEL_USAGE_RATE	The average rate of fuel usage during the survey period
FUEL_USAGE_RATE_UNITS	Unit of measure for the fuel usage rate
HEAT_INPUT_RATE_MMBTU_PER_HR	The average heat input rate during the survey period
TANK_THROUGHPUT_VALUE_BBL	Throughput of the storage tank (barrels)
THROUGHPUT_VALUE	Numeric value of the throughput for all equipment types except fugitives (FUG) and mud degassing (MUD); for FUG - the total number of components; for MUD – number of active days for the month
THROUGHPUT_UNIT	Unit of measure for the throughput value
PAINT_COLOR	Tank paint color
PAINT_CONDITION	Tank paint condition

Field Name	Description
RVP	Reid Vapor Pressure
RVP_UNITS	Units of Reid Vapor Pressure
TANK_VOC_WT	VOC tank vapor weight percent
TANK_VOC_WT_UNITS	Units of VOC tank vapor weight percent
VAPOR_MW_LB_PER_LBMOL	Average molecular weight of vapors (lb/lb-mole)
AVG_AMBIENT_T_F	Daily average ambient temperature (degrees Fahrenheit)
LIQUID_BULK_T	Liquid bulk temperature (degrees Fahrenheit)
VESSEL_UPSTREAM_PRESSURE_PSIG	Upstream operating pressure (psig)
VESSEL_UPSTEAM_TEMP_F	Upstream operating temperature (degrees Fahrenheit)
VESSEL_OP_PRESSURE_PSIG	Downstream/vessel operating pressure (psig)
VESSEL_OP_T_F	Downstream/vessel operating temperature (degrees Fahrenheit)
API	API gravity
VESSEL_TYPE	Type of vessel
MAX_AMBIENT_T_F	Average daily maximum ambient temperature (degrees Fahrenheit)
MIN_AMBIENT_T_F	Average daily minimum ambient temperature (degrees Fahrenheit)
TANK_VAPORS_LB_PER_LBMOL	Tank Vapors molecular weight (lb/lb-mole)
TANK_LENGTH_FT	Tank shell length (feet)
TANK_HEIGHT_FT	Tank shell height (feet)
TANK_WIDTH_FT	Tank shell width (feet)
TANK_WIDTH_1_FT	Horizontal width of a rectangular tank (feet)
TANK_WIDTH_2_FT	Second horizontal width of a rectangular tank (oriented vertically) (feet)
TANK_DIAMETER_FT	Tank shell diameter (feet)
TANK_LIQUID_HEIGHT_FT	Tank average liquid height (feet)
TANK_ROOF_HEIGHT_FT	Tank roof height (feet)
ROOF	Tank roof type
MUD_TYPE	Type of mud

Field Name	Description
VENT_TYPE	Vent type
VENT_GAS_VOC_CONC_PPMV	Concentration of VOC in the vented gas (parts per million (volume))
BLEED_RATE	Description of bleed rate
PNEUMATIC_CONTOLLERS_UNITS	Number of pneumatic controller units
SERVICE_TYPE	Controller service type
MATERIAL_DESCRIPTION	Description of material processed
MATERIAL_CODE	Code description of material processed
MATERIAL_I_O	A descriptor indicating whether material is used or produced
HOURS_PER_MONTH	Number of hours the process is active within the month specified
DAYS_PER_MONTH	Number of days the process is active within the month specified
POLLUTANT_CODE	Pollutant Code
POLLUTANT_DESCRIPTION	Description of the pollutant
POLLUTANT_CATEGORY_NAME	Category name of the pollutant
EMISSION_FACTOR_NUMERIC_VALUE	The numeric value of the emission factor
EMISSION_FACTOR_NUMERATOR	Unit of measure for emission factor numerator
EMISSION_FACTOR_DENOMINATOR	Unit of measure for emission factor denominator
EMISSIONS_VALUE	Numeric value of emission
EMISSIONS_VALUE_UNITS	Unit of measure for emission value
EMISSIONS_DATA_LEVEL	Emissions records are represented by the process level
EMISSIONS_TYPE	Flag indicating values reported are actual emissions
AUGMENTATION_FLAG	Descriptive flag indicating if emissions were calculated based on anything other than activity data
CONTROLLED_STATUS	Flag indicating whether emissions are controlled or uncontrolled
PRIMARY_DEVICE	The primary type of control equipment used
CONTROL_SYSTEM_DESCRIPTION	Description of control equipment chain
IS_LDAR_IN_PLACE	Flag indicating if LDAR is in place
NBR_MONTHS_BETWEEN_INSPECTIONS	Number of months between inspections

Field Name	Description
INSPECTION_METHOD	Description of inspection method
FUGITIVE_COUNT_TYPE	Flag indicating if fugitive component counts are based on actual or default counts
REDUCTION_EFFICIENCY	Overall emissions reduction efficiency of the control device
EFFICIENCY_CO	Reduction efficiency of the carbon monoxide emissions
EFFICIENCY_N2O	Reduction efficiency of the nitrous oxide emissions
EFFICIENCY_NOX	Reduction efficiency of the nitrogen oxides
EFFICIENCY_PM10	Reduction efficiency of emissions of particulate matter with diameter of 10 microns or less
EFFICIENCY_PM25	Reduction efficiency of emissions of particulate matter with diameter of 2.5 microns or less
EFFICIENCY_SOX	Reduction efficiency of emissions of sulfur oxides
EFFICIENCY_VOC	Reduction efficiency of emissions of volatile organic compounds
EFFICIENCY_100414	Reduction efficiency of the ethyl benzene emissions
EFFICIENCY_108883	Reduction efficiency of the toluene emissions
EFFICIENCY_110543	Reduction efficiency of the hexane emissions
EFFICIENCY_1330207	Reduction efficiency of emissions of xylenes (mixed isomers)
EFFICIENCY_540841	Reduction efficiency of the 2,2,4-trimethylpentane emissions
EFFICIENCY_71432	Reduction efficiency of the benzene emissions

* While the EMISSION_PROCESS_ID_ALT field displays the alphanumeric process designation, the EMISSION_PROCESS_DESCRIPTION_ALT (column directly to the right) provides a more detailed description of the process specifications.