



BILL RICHARDSON
Governor

DIANE DENISH
Lieutenant Governor

New Mexico
ENVIRONMENT DEPARTMENT

Air Quality Bureau
1301 Siler Road, Building B
Santa Fe, NM 87507-3113
Phone (505) 476-4300
Fax (505) 476-4375
www.nmenv.state.nm.us



RON CURRY
Secretary

JON GOLDSTEIN
Deputy Secretary

January 21, 2009 (rev. February 27, 2009)

Air Quality Permitted Major Source:

The New Mexico Environment Department (NMED) Air Quality Bureau (AQB) is conducting an emission inventory (EI) of permitted, major sources, excluding facilities in Bernalillo County and on Tribal Lands. Facilities are required to submit their emissions reports, calculations, and certifications to the AQB by close of business on **May 1, 2009**.

The 2008 EI is just like the 2007 EI. Sources will receive an Excel workbook. Each workbook will include one spreadsheet for the facility and additional spreadsheets for each emissions unit. If you receive an Excel workbook for a facility for which you are not responsible, such as due to transfer of ownership, please notify Rhonda Payne at (505) 476-4329 or rhonda.payne@state.nm.us. Please also notify Rhonda if your Excel workbook is missing emissions units for which the facility is permitted or if the spreadsheets are missing rows of data.

For the 2008 EI, the AQB has provided excel spreadsheets with actual operation rates as reported by facilities to the AQB in the past. Companies will update the excel spreadsheets provided by the AQB to reflect their **actual operations for 2008**.

In addition, facilities will be required to submit a certification. As required in 20.2.73 NMAC, the certification shall be "signed by the owner, or operator, or a responsible official as defined in 20.2.70 NMAC attesting that the statements and information contained in the emissions report are true and accurate to the best knowledge and belief of the certifying official, and including the full name, title, signature, date of signature, and telephone number of the certifying official; for sources subject to 20.2.70 NMAC, the certification shall be made as required under that Part".

The 2008 EI will include: carbon dioxide, individual (speciated) hazardous air pollutants (HAPs), criteria pollutants, and precursor pollutants to criteria pollutants.

- Facilities are only required to report actual emissions of individual (speciated) hazardous air pollutants (HAPs) that are equal to or greater than 0.5 tons per year for each emissions unit. For a complete list of HAPs see the EPA website <http://www.epa.gov/ttn/atw/188polls.html>.
- Criteria pollutants include carbon monoxide (CO), sulfur dioxide (SO₂), nitrogen dioxide (NO₂), ozone (O₃), lead (Pb), and particulate matter. Particulate matter includes particulate matter 2.5 microns in diameter or less (PM_{2.5}), particulate matter ten microns in diameter or less (PM₁₀), and total suspended particulate. Emissions of O₃ are not required to be reported in the inventory. However, emissions of volatile organic compounds (VOC) are required to be reported, as they are precursor pollutants to ozone.

- Precursor emissions for PM_{2.5} are SO₂, VOC, NO₂, and ammonia (NH₃). All of the above pollutants, except O₃, will be required to be reported in the 2008 Emissions Inventory.
- Emission reports shall include actual emissions of fugitive emissions and emissions occurring during maintenance, start-ups, shutdowns, upsets, and downtime.

Additional Instructions for Reporting Carbon Dioxide Emissions:

- Please use the emission calculation procedures located at the following link:
http://www.nmenv.state.nm.us/aqb/ghg/documents/NM_GHGEI_quantif_proced2008.pdf
- Report only combustion, and vented (if applicable) carbon dioxide emissions from your facility.
- For each subject item enter the actual amount of CO₂ emissions in tons per year (e.g. combustion CO₂ for a combustion source or vented CO₂ for a vented source).
- Report fuel carbon content of each fuel type used by the facility.
- Include carbon dioxide emissions occurring during maintenance, start-ups, shutdowns and upsets.
- Use the appropriate calculation code to cross reference between the spreadsheet and the emission calculation methods found in our GHG reporting procedures.
- Create a separate Excel workbook and provide emission calculation example(s) for each unique subject item type at your facility (e.g. engine, flare, amine unit or turbine). Submit this workbook in conjunction with your 2008 Emissions Inventory workbook.
- Owners or Operators reporting pursuant to 20.2.87 Greenhouse Gas Emissions Reporting shall provide a listing, including percentages, of the owners of equity shares of the emissions reported, and shall submit their reports no later than May 1, 2009.

Description of the 2008 EI Excel workbook spreadsheets

Facility data is displayed in the first spreadsheet, which includes

Column C: Agency Interest Name (facility name)

Column D: AIRS ID

Column L: Field Description (contains required data elements to be updated by the facility)

Column M: Value (contains the value to be updated to the actual 2008 operation rate)

Column N: Description (description of the value)

Since there are multiple data elements, each one is represented on its own row. For instance, there is a row for the facility Standard Industrial Classification (SIC) Code and another for the North American Industry Classification (NAIC) Code. The NAICS may be found at <http://www.census.gov/epcd/www/naicstab.htm>, and the SIC may be downloaded from http://www.epa.gov/enviro/html/sic_1kup.html.

Microsoft Excel - AI_6.xls

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	C	D	L	M	N	R
1	Agency Interest Name	AIRS ID	Field Description	Value	Description	
2	Roswell Compressor Station	350050004	Standard Industrial Classification (SIC) Code	1795	Wrecking and demolition work	
3	Roswell Compressor Station	350050004	North American Industry Classification (NAIC) Code	48621	Pipeline Transportation of Natural Gas	
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Emissions Units data is displayed on its own spreadsheet. There is one spreadsheet for each emissions unit, which include

- Column C: Agency Interest Name (facility name)
- Column D: AIRS ID
- Column H: Subject Item Designation (note: subject item means emissions unit)
- Column I: Subject Item Description
- Column L: Field Description (contains required data elements to be updated by the facility)
- Column M: Value (contains the value to be updated to the actual 2008 operation rate)
- Column N: Description (description of the value)

Since there are multiple data elements, each one is represented on its own row. In the screen shot below, highlighted fields are used to draw your attention to the multiple data element rows. However, in the facility 2008 EI excel workbooks, there is no highlighting.

In the emissions unit spreadsheet, there is one row for each parameter. However, we grouped all of the rows dealing with time together (rows 3-10). The next group is the fuel characteristic data elements (rows 11-16). Next is the Source Classification Code (SCC). Next are the pollutants. Note: Each pollutant actually has 3 rows:

1. Value in tons/year
2. Calculation method code (please use the code table below), and
3. Control efficiency in percent (note: if there is no control, it will be blank. Please notify Rhonda Payne to add control equipment type and efficiency, if necessary).

	D	H	I	L	M	N
	AIRS ID	Subject Item Designation	Subject Item Description	Field Description	Value	Description
2	350050004	001	Clark Tia-10 Engine	AQB-State/Local ID	001	Not Applicable
3	350050004	001	Clark Tia-10 Engine	Actual Percent of Operation During Winter	24	percent of time
4	350050004	001	Clark Tia-10 Engine	Actual Percent of Operation During Spring	28	percent of time
5	350050004	001	Clark Tia-10 Engine	Actual Percent of Operation During Summer	25	percent of time
6	350050004	001	Clark Tia-10 Engine	Actual Percent of Operation During Fall	23	percent of time
7	350050004	001	Clark Tia-10 Engine	Actual Operating Time in Hours Per Day	24	h/d
8	350050004	001	Clark Tia-10 Engine	Actual Operating Time in Days Per Week	7	d/week
9	350050004	001	Clark Tia-10 Engine	Actual Operating Time in Weeks Per Year	52	weeks/y
10	350050004	001	Clark Tia-10 Engine	Actual Operating Time in Hours Per Year	7732	h/y
11	350050004	001	Clark Tia-10 Engine	Actual Fuel Consumption	193.31	MM SCF/y
12	350050004	001	Clark Tia-10 Engine	Actual Fuel Heating Value	919	MM BTU/MM SCF
13	350050004	001	Clark Tia-10 Engine	Actual Fuel Type	209	Natural Gas
14	350050004	001	Clark Tia-10 Engine	Actual Percent Sulfur of Fuel	0	percent
15	350050004	001	Clark Tia-10 Engine	Actual Percent Ash of Fuel	0	percent
16	350050004	001	Clark Tia-10 Engine	Actual Input Materials Processed	209	Natural Gas
17	350050004	001	Clark Tia-10 Engine	Standard Classification (SCC) Code	20200202	Internal Combustion Engines, Industrial, Natural Gas, Reciprocating
18	350050004	001	Clark Tia-10 Engine	Actual Acetaldehyde; (Ethyl aldehyde) in tons per year	3.16	tons/y
19	350050004	001	Clark Tia-10 Engine	Actual Acetaldehyde; (Ethyl aldehyde) calculation method	08	Trade Group Emission Factor
20	350050004	001	Clark Tia-10 Engine	Acetaldehyde; (Ethyl aldehyde)Actual total efficiency controlled by Uncontrolled		percent
21	350050004	001	Clark Tia-10 Engine	Actual Ammonia in tons per year	0	tons/y
22	350050004	001	Clark Tia-10 Engine	Actual Ammonia calculation method	11	Manufacturer Specification
23	350050004	001	Clark Tia-10 Engine	AmmoniaActual total efficiency controlled by Uncontrolled		percent
24	350050004	001	Clark Tia-10 Engine	Actual Benzene in tons per year	0	tons/y
25	350050004	001	Clark Tia-10 Engine	Actual Benzene calculation method	11	Manufacturer Specification
26	350050004	001	Clark Tia-10 Engine	BenzeneActual total efficiency controlled by Uncontrolled		percent
27	350050004	001	Clark Tia-10 Engine	Actual Carbon Monoxide in tons per year	76.55	tons/y
28	350050004	001	Clark Tia-10 Engine	Actual Carbon Monoxide calculation method	12	State/Local Emission Factor
29	350050004	001	Clark Tia-10 Engine	Carbon MonoxideActual total efficiency controlled by Uncontrolled		percent
30	350050004	001	Clark Tia-10 Engine	Actual Ethylbenzene in tons per year	0	tons/y
31	350050004	001	Clark Tia-10 Engine	Actual Ethylbenzene calculation method	11	Manufacturer Specification
32	350050004	001	Clark Tia-10 Engine	EthylbenzeneActual total efficiency controlled by Uncontrolled		percent
33	350050004	001	Clark Tia-10 Engine	Actual Formaldehyde in tons per year	5.85	tons/y
34	350050004	001	Clark Tia-10 Engine	Actual Formaldehyde calculation method	08	Trade Group Emission Factor
35	350050004	001	Clark Tia-10 Engine	FormaldehydeActual total efficiency controlled by Uncontrolled		percent

Calculation Method Code	Calculation Method	GHG Calculation Method
am	Asphalt Production - 95113(b)(4)(A)	
st	Actual Stack Test	
bc	Bottoming Cycle Plant - 95112(b)(4)(B)	
01	Compliance Testing	
cc	Continuous Catalyst regen - 95113(b)(2)(B)	
07	Continuous Emissions Monitoring (CEMS)	95125(g)
dc	Design Calculation	
do	Direct Observation	
ag	Electric Acid Gas Scrubbing - 95111(e)	
ej	Engineering Judgment	
04	Engineer Calculation	
05	E & P Tanks	
ap	EPA Emission Factors	
ep	EPA Published Criteria	
09	EPA Speciation Profile	
es	Estimate	
fs	Facility Specific	95125(e)
fm	Field Measurement	95125(d)
fl	Flares and Control Devices - 95113(d)	
gc	GRI-GLYCalc 4.0	
gr	GRI-HAPCalc 3.0	
gi	GRI-HAPCalc 4.0	
hp	Hydrogen Plant – 95114(b)(2)(3)	
lm	Lab Measurement	95125(f)
11	Manufacturer Specification	
mb	Material Balance	
ma	Mathematical Model	
mf	Measurement Using Factor	
pr	Other Publication Reference	
cr	Periodic Catalyst Regeneration – 95113(b)(2)(A)	
06	Process Simulator	
pv	Process Vents – 95113(b)(3)(A)	
rd	Radiation Dose	
re	Radiation Exposure	
13	Site-Specific Emission Factor	95125(c)
12	State/Local Emission Factor	95125(a)
10	State/Local Speciation Profile	
sr	Sulfur Recovery – 95113(b)(5)(A)	
tc	Topping Cycle Plant – 95112(b)(4)(A)	
08	Trade Group Emission Factor	API 5.1.4
14	Vendor Emission Factor	
wg	Vasquez Beggs	

While compiling your 2008 EI submittal, remember to:

1. **Highlight in yellow those fields that you update.**
2. Please provide comments to Rhonda in an e-mail or letter rather than by inserting comments in the spreadsheet cells.
3. The emission inventory will be considered successfully submitted to AQB by the deadline if all of the required information has been provided by **May 1, 2009**. Submitting the spreadsheets to AQB without updating the information does not constitute submitting the inventory in accordance with 20.2.73 NMAC.
4. Report actual emissions of CO, SO₂, NO₂, Pb, PM_{2.5}, PM₁₀, total particulate, VOC, and NH₃.
5. Report actual emissions of individual (speciated) hazardous air pollutants (HAPs) that are equal to or greater than 0.5 tons per year for each emissions unit.
6. Report actual emissions of fugitive emissions and emissions occurring during maintenance, start-ups, shutdowns, upsets, and downtime.
7. Include actual operation rates and emissions for units that have been removed from the facility during calendar year 2008, even if they only operated during a portion of the year.
8. Notify Rhonda Payne (rhonda.payne@state.nm.us, (505) 476-4329) or Dave Madrid (david.madrid@state.nm.us, (505) 476-5557) if your Excel workbook includes an emissions unit that has been removed or retired before 2008.
9. Notify Rhonda Payne (rhonda.payne@state.nm.us, (505) 476-4329) or Dave Madrid (david.madrid@state.nm.us, (505) 476-5557) if you received an Excel workbook for a facility for which you are not responsible, such as due to transfer of ownership.
10. Notify Rhonda Payne (rhonda.payne@state.nm.us, (505) 476-4329) or Dave Madrid (david.madrid@state.nm.us, (505) 476-5557) if your Excel workbook is missing emissions units for which the facility is permitted or if the spreadsheets are missing rows of data.
11. If you have to add a row, **HIGHLIGHT THE ENTIRE ROW IN YELLOW FOR IDENTIFICATION PURPOSES.**
12. If a unit has been removed or shutdown, don't delete that spreadsheet. These units are still needed in the database, especially if the decreased emissions expand available PSD increments.
13. Do not report allowable operating parameters.
14. Do not report maximum potential operating parameters.
15. DO NOT reformat or resort the spreadsheets. Doing so may result in the inability to upload the facility report to the NMED database, which would result in an incomplete submission. Only add the data that you are required to report.

You may contact Rhonda Payne (rhonda.payne@state.nm.us, (505) 476-4329) or Dave Madrid (david.madrid@state.nm.us, (505) 476-5557) with any questions regarding the 2008 Emission Inventory. For questions on greenhouse gas inventory, contact Mike Schneider (mike.schneider@state.nm.us, (505) 476-4323).