

Oil and Natural Gas Production Area MACT Requirements for Exempt Sources

40 CFR Part 63 Subpart HH



INSIGHTS

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To meet the criteria for exemption from emission control requirements under 40 CFR 63.764(e)(1), oil and natural gas production facilities that are sources of hazardous air pollutants (HAPs) must comply with new documentation and recordkeeping requirements according to the timeline outlined in Table 1 on the page of this newsletter.

Specifically, the regulations under 40 CFR Part 63 Subpart HH – Requirements for Exempt Sources, pertain to triethylene glycol (TEG) dehydration units. The exemption is granted to those units with an actual annual natural gas flow rate of less than 3 million standard cubic feet per day (MMSCF/d) (85,000 standard cubic meters per day) and with benzene emissions of less than 1.0 ton per year (tpy) (0.90 megagrams per year or Mg/yr.).

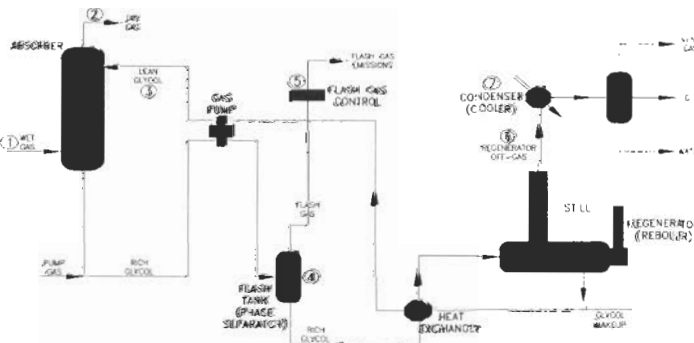
Operators of TEG dehydration units must determine if either the glycol dehydration unit flow rate or benzene emissions is less than 3 million MMSCF/d or 1.0 tpy respectively, thus documenting their exempt status.



Convert annual natural gas flow rate to a daily average by dividing the annual flow rate by the number of days per year the dehydrator processed natural gas, or

(ii) Document, to the EPA Administrator's satisfaction, that the actual average natural gas flow rate to the glycol dehydration unit is less than 3 MMSCF/d.

According to the regulations, if an operator chooses to document exempt status by benzene emission determination, they will be required to do the following:



The regulations state that if an operator chooses to document exempt status by flow rate determination, they will be required to do the following:

(i) Install and operate a monitoring instrument that directly measures natural gas flow rate to the dehydrator with a minimum accuracy of ± 2 percent.

(i) Determine actual average benzene emissions using the computer program GRI-GLYCalc™, Version 3.0 or higher. Inputs to the model shall be representative of actual operating conditions; or

(ii) Determine an average mass rate of benzene emissions in kilograms per hour through direct measurement using the methods in Part 63.772(a)(1)(i) or (ii), or an alternative method according to Part 63.7(f). Annual emissions in kilograms per year shall be determined by multiplying the mass rate by the number of hours the unit is operated per year. This result shall be converted to megagrams per year.

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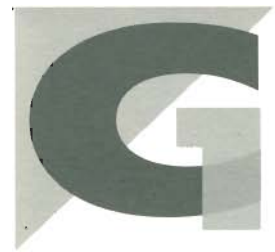
Operators must also keep records to document their exempt status as follows:

- (i) *The actual annual average natural gas throughput (in terms of natural gas flow rate to the glycol dehydration unit per day) as determined in accordance with Part 63.772(b)(1), or*
- (ii) *The actual average benzene emissions (in terms of benzene emissions per year) as determined in accordance with Part 63.772 (b)(2).*

Sources that are not exempt - those with an actual annual unit natural gas flow rate equal to or greater than 3 MMSCF/d and with benzene emissions equal to or greater than 1.0 tpy - are subject to the HAP requirements and must control the glycol dehydrator and reduce HAPs by

95 percent or lower the glycol recirculation rate to less than or equal to the optimum rate, depending on the geographic location of the dehydrator.

Insights is intended to provide discussion and information concerning environmental issues, and is not intended to provide legal advice. Readers should contact Jeff Simsa at Gosling Czubak (800) 968-1062 to discuss specific situations. © 2008 GCES



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**Table 1
Compliance Dates**

Affected Source Location Population Classification	Urban Classification	Date of Source Construction or Reconstruction	New or Existing Source	Source Compliance Date
(a) Urban - 1 based on 2000 census data	Within any UA plus offset and UC boundary.	Before February 6, 1998	Existing	January 4, 2010
(b) Urban 1 - based on 2000 census data	Not within any UA plus offset and UC boundary.	Before February 6, 1998	Existing	January 5, 2009
(c) Urban 1 - based on 2000 census data	Either within or outside any UA plus offset and UC boundary	On or after February 6, 1998	New	January 3, 2007 or startup, whichever is later
(d) Not urban -1 based on 2000 census data	Within any UA plus offset and UC boundary	Before July 8, 2005	Existing	January 4, 2010
(e) Not urban -1 based on 2000 census data	Not within any UA plus offset and UC boundary	Before July 8, 2005	Existing	January 5, 2009
(f) Not urban -1 based on 2000 census data	Either within or outside any UA plus offset and UC boundary	On or after July 8, 2005	New	January 3, 2007 or startup, whichever is later

Compliance dates are found in 63.760(f)(3) through (f)(6)

Definitions: (63.761)

UA offset and UC is defined as the area occupied by each urbanized area, each urban cluster that contain at least 10,000 people, and the area located two miles or less from each urbanized area boundary.

Urban-1 County is defined as a county that contains a part of a Metropolitan Statistical Area with a population greater than 250,000, based on the Office of Management and Budget's *Standards for defining Metropolitan and Metropolitan Statistical Areas* (December 27, 2000), and Census 2000 data released by the U.S. Census Bureau.

Urbanized Area refers to Census 2000 Urbanized Area, which is defined in the *Urban Area Criteria for Census 2000* (March 15, 2002). Essentially, an urbanized area consists of densely settled territory with a population of at least 50,000 people.

Urban Cluster refers to a Census 2000 Urban Cluster, which is defined in the *Urban Area Criteria for Census 2000* (March 15, 2002). Essentially, an urban cluster consists of densely settled territory with at least 2,500 people but fewer than 50,000 people.