

**MACT FOR AREA SOURCE  
OIL AND NATURAL GAS PRODUCTION FACILITIES  
40 CFR 63 SUBPART HH**

MACT Subpart HH has been amended to regulate benzene emissions from triethylene glycol (TEG) dehydration units (dehy units) located at area sources of HAP.

The promulgated rule establishes emission reduction requirements based on proximity to areas of high population density. The rule defines higher population density areas using the term "UA plus offset and UC boundary". This included urbanized areas (UA), urban clusters (UC) that contain 10,000 people or more, and the area located two miles or less for each UA boundary. The EPA developed a step-by-step procedure to determine if a dehy unit falls within this definition. This can be found at <http://www.epa.gov/ttn/atw/oilgas/oilgaspg.html> under Implementation Documents.

Unless otherwise required by law, the owner or operator of an area source subject to this rule is not subject to Title V permitting.

**Regulated Pollutants**

- HAPs, primarily Benzene

**Affected Sources**

- New or reconstructed dehy units at an area source oil and natural gas production facility

**Exclusions**

- Dehy units are not subject to emissions reduction requirements if the annual average natural gas flow rate is less than 3 MMSCFD, or if benzene emissions are less than 1.0 tpy

**Compliance Dates**

- 1) For dehy units located in a county classified as Urban-1 based on 2000 census data:
  - Constructed before February 6, 1998 and located within any UA plus offset and UC boundary – Existing source with compliance date of January 4, 2010
  - Constructed before February 6, 1998 and not located within any UA plus offset and UC boundary – Existing source with compliance date of January 4, 2009
  - Constructed on or after February 6, 1998 and located within or outside any UA plus offset and UC boundary – New source with compliance date of January 3, 2007 or startup, whichever is later

- 2) For dehy units located in a county not classified as Urban-1 based on 2000 census data:
  - Constructed before July 8, 2005 and located within any UA plus offset and UC boundary – Existing source with compliance date of January 4, 2010
  - Constructed before July 8, 2005 and not located within any UA plus offset and UC boundary – Existing source with compliance date of January 4, 2009
  - Constructed on or after July 8, 2005 and located within or outside any UA plus offset and UC boundary – New source with compliance date of January 3, 2007 or startup, whichever is later

### **Control Options/Requirements**

Emission reduction requirements apply to dehy units processing 3 MMSCFD (annual average) natural gas with benzene emissions of 1.0 tpy or greater.

- 1) Dehy units located in the “UA plus offset and UC boundary” must be routed to a control device through a closed vent system. The control device must:
  - Reduce HAP emissions by 95% or more, or
  - Reduce HAP emissions to an outlet concentration of 20 ppmv or less, or
  - Reduce benzene emissions to a level less than 1.0 tpy
- 2) Dehy units located outside the “UA plus offset and UC boundary” must optimize the glycol circulation rate according to a formula in the rule. The formula is based on achieving a 3.0 gal TEG/lb H<sub>2</sub>O ratio.

### **Notification, Monitoring and Testing**

- 1) To demonstrate the dehy unit processes less than 3 MMSCFD natural gas, you must use a flow measurement device or another method approved by the Administrator.
- 2) To demonstrate the benzene emission rate is less than 1.0 tpy, you must determine emissions using either GRI-GLYCalc, Version 3.0 or higher, or direct measurement.

### Initial Compliance

- 1) For dehy units located with the “UA plus offset and UC boundary”, Notification of Compliance Status Reports must be submitted, the closed vent system and control device(s) must be inspected or tested, and monitoring parameter values must be established. In addition, a Startup, Shutdown and Malfunction Plan (SSMP) must be prepared.
- 2) For dehy units located outside the “UA plus offset and UC boundary”, an Initial Notification must be submitted, which must include a certified statement of future compliance.

### Continuous Compliance

- 1) For dehy units at area sources within the “UA plus offset and UC boundary”, periodic reports must be submitted on an annual basis, rather than semiannually as required at major sources. In addition, annual inspections of closed-vent systems must be conducted, leaks and defects repaired, control device(s) must be monitored, and required records must be maintained.
- 2) For dehy units outside the “UA plus offset and UC boundary”, a record of the circulation rate determination must be maintained.