

Appendix J: Benzene Emissions from Glycol Dehydrators

This information sets out the rationale and requirements for controlling the emissions of benzene from glycol dehydrators.

Benzene is classified as a toxic substance under the Canadian Environmental Protection Act and as a group one carcinogen by the International Agency for Research on Cancer. As a non-threshold carcinogen, there is considered to be some health risk at any level of exposure. As a result, benzene emissions must be managed to achieve the lowest levels practicable to minimize human exposure. The health risk posed by benzene is to be managed by reducing human exposure to the extent possible and practicable.

As part of the Benzene Technical Advisory Team (BTAT), the Commission is committed to reducing benzene emissions from glycol dehydrators.

In order to reduce and manage benzene emissions from glycol dehydrators in British Columbia, permit holders must comply with the following requirements:

- Permit holders must ensure all dehydrators meet the following benzene emissions limits:

| Date of Installation or Relocation | Benzene Emissions Limit |
|--|-------------------------|
| Prior to January 1, 1999 | 5 tonnes/yr |
| a) Greater than 750 m to the nearest permanent resident or public facility | 3 tonnes/yr |
| b) Less than 750 m to the nearest a permanent resident or public facility | |
| January 1, 1999 to June 30, 2007 | 3 tonnes/yr |
| After June 30, 2007 | 1 tonne/yr |

- If more than one dehydrator is located at a facility or lease site, the cumulative benzene emissions for all dehydrators must not exceed the limit of the oldest dehydrator on site. Modifications may be required to existing units to meet the site limit.
- Any new or relocated dehydrators added to an existing site with dehydrators must operate at a maximum benzene emission limit of 1 tonne/yr or less. The cumulative benzene emissions must not exceed the limit of the oldest dehydrator on site.

- For dehydrators that are only in operation for a portion of the year, the benzene emission rate must be prorated.

Permit holders must complete a DEOS (Dehydrator Engineering and Operations Sheet to determine the benzene emissions from each dehydrator. The sheet must be posted at the dehydrator for use by operations staff and inspection by the Commission. The DEOS must be revised once each calendar year or upon a change in operation status of a dehydrator.

Permit holders must complete and submit an annual Dehydrator Benzene Inventory List by email to OGCbenzene.inventory@bcogc.ca by July 1st of each calendar year for the operations of the previous calendar year.

For further clarification and/or information, contact the Commission's Environmental Management Group.