OIL AND GAS PRODUCTION FACILITIES

Oil and gas production operations emit a variety of pollutants.

1. volatile organic compounds
2. nitrous oxides
3. sulphurous oxides
4. carbon monoxide
5. particulate matter
6. toxic air contaminants

The following is an explanation of the DEQ air quality requirements for oil and gas production operations.

PERMITTING

If a facility utilizes any of the following equipment, an air permit must be obtained.

1. glycol dehydration unit
2. crude oil/condensate storage tanks
3. compressor
4. pump
5. line heater
6. heater treater
7. flare

Facilities which are exempt from permitting are those which have grandfather status.

GRANDFATHER STATUS

Grandfather status is defined as those facilities which were in operation or under actual construction as of June 19, 1969. Those with grandfather status are required to provide a current Emissions Inventory Questionnaire to the permitting authority. Grandfathered facilities may be required to obtain a permit if:

1. The facility emits more than 100 tons per year of any of the first five pollutants listed in the introduction; or,
2. Ownership of the facility has changed since June 19, 1969; or,
3. Emissions have been initiated or increased since June 19, 1969; or,

4. The facility emits 10 tons per year of any one air toxic compound OR a combination of 25 tons per year of multiple air toxic compounds; or,
5. The permitting authority requires it.

PERMIT APPLICATIONS

To apply for a permit, one must complete an air permit application and emissions inventory questionnaire and submit these to the permit authority in Baton Rouge. These forms can be obtained from your nearest DEQ office or can be downloaded from this bulletin board. For assistance with completing these forms, call the SBAP Hotline at 1-800-259-2890.

AIR EMISSIONS ESTIMATIONS

The most difficult part of completing the application forms is the quantification of the air pollutants emitted by the facility. Several methods can be used to do this. The more common methods are the use of emission factors and actual testing of the exhaust. If emission factors are available, they are the easiest and least expensive method of estimating emissions. Unfortunately, the only accurate method of quantifying emissions is through testing.

EMISSION FACTORS

The EPA has generated emission factors for various pieces of equipment including: compressors, tanks, pumps, and line heaters. Emission testing must be done on glycol dehydrators. Fugitive emissions must be quantified through a combination of testing and factors. For assistance with air emission estimations, call the SBAP Hotline.

AIR TOXIC COMPOUNDS

The following is a list of the most common toxic air compounds emitted by the oil and gas industry:

1. benzene
2. ethylbenzene
3. toluene
4. xylene
5. hexane
6. hydrogen sulfide