

Butte County
AIR QUALITY MANAGEMENT DISTRICT
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REQUIREMENTS FOR UNCONTROLLED SOIL AERATION

**AUTHORITY TO CONSTRUCT/PERMIT TO OPERATE
REQUIREMENTS AND APPLICATION INSTRUCTIONS**

(Revised October 1996)

1. Any aeration project involving petroleum contaminated soil shall require an Authority to Construct (A/C) permit. Some sites may qualify for an Expedited permit which seeks to issue the necessary permit appeal within twenty-four (24) hours. Qualifications for an Expedited permit depend on the uniqueness of the activities, extrinsic environmental factors, permitting history, and public exposure criteria. Contaminated soils with an average TPHg concentration of 50 ppm by weight or less, or involving five cubic yards of soil or less per facility, shall be exempt from Best Available Control Technology (BACT) requirements. If elevated benzene concentrations exist in the soil a health risk screening assessment shall be included in order to determine the final status of the proposed soil aeration project.
2. Any soil contamination involving exclusively hydrocarbons with a boiling point of equal to or greater than 302°F shall be exempt from BACT requirements.
3. Soil aeration projects that fall under the exemptions are required to notify the AQMD of their proposal in writing, including copies of soil composite test results. Upon approval of the proposal, the appropriate permit will be issued.
4. TPHg and benzene emission rates will be estimated using the following factors.
 - a. The average TPHg or benzene concentration found by sampling and analysis of the soil stockpile. Results of the laboratory analysis shall be provided to the AQMD with the permit application.
 - b. Five days of aeration.
 - c. The total volume of soil in cubic yards (cy).
 - d. A soil density of 3900 in lb/cy.

The TPHg emission rate shall not exceed 50 lb/day. If, however, the emission rate is above 50 lb/day, or if the public health risk assessment from any carcinogenic compound is greater than or equal to one (1) part in a million, the BACT shall be applied.

5. A person shall not aerate contaminated soil excess of that specified in Table 1. The limitations in Table 1 apply to the entire facility, and indicate the volume of contaminated soil that may be aerated in an uncontrolled manner. The addition of more soil must be approved by the AQMD.

TABLE 1

TPHg ppm (weight)	VOLUME OF SOIL (cubic yards)
<50	exempt
50 - 99	600
100 - 499	120
500 - 999	60
1000 - 1999	30
2000 - 2999	15
3000 - 3999	10
4000 - 4999	8
>5000	0.1

6. Controlled aeration: Soil may be aerated at volumes exceeding the limitations in the above table, provided emissions of TPHg to the atmosphere are reduced by at least 95% by weight and provided that the results of the health risk assessment are found to be acceptable.
7. Contaminated soil stockpiles shall be kept completely and securely covered at all times.