TEHAMA COUNTY AIR POLLUTION CONTROL DISTRICT

RULE 6:2 - AERATION OF CONTAMINATED SOIL
(Adopted 4/25/1989; Amended 6/16/1992, 2/1/1994)

1. Purpose: To limit the emission of organic compounds from contaminated soil and to describe an acceptable soil aeration procedure.

2. Definitions:

    1. Active Storage Pile: A pile of contaminated soil to which soil is currently being added or from which soil is currently being removed. Activity must have occurred or be anticipated to occur within one hour to be current.

    2. Aeration: Exposure of excavated contaminated soil to the air.

    3. Aeration Depth: The smaller of the following: the actual average depth of contaminated soil or6 inches multiplied by the daily frequency with which soil is turned. The exposed surface area includes the pile of excavated soil unless the pile is covered.

    4. Aeration Project: Contaminated soil from one (1) location.

    5. Aeration Volume: The volume of soil being aerated shall be calculated as follows: the exposed surface area in square feet shall be multiplied by the aeration depth.\

    6. Contaminated Soil: Soil which has an organic content exceeding 50 ppm (weight).

    7. Facility: Location where contaminated soil is aerated.

    8. Organic Compound: Any compound of carbon, excluding methane, carbon monoxide, carbon dioxide, carbonic acid, metallic carbides or carbonates and ammonium carbonate.

    9. Organic Content: The concentration of organic compounds measured in the composite sample collected and analyzed using the procedures specified by this Rule.

    10. Vapor Free: The process of purging gases from a tank using dry ice to replace organic vapors with inert atmosphere.

    11. Ventilation: The process of purging gases from a tank by blowing or drawing another gas through the tank.

3. Notification:

1. A minimum of five days prior to underground storage tank removal or excavation of contaminated soil, the person responsible shall give written notice to the District.

2. Any person wishing to permanently decommission an underground storage tank which previously contained organic compounds shall follow the following procedure.

    1. All piping shall be drained and flushed into the tank or other container.

    2. Vapors shall be removed from the tank by either freeing or ventilation.

    3. No person shall ventilate or vapor free a tank containing more than 0.001 gallons of liquid organic compounds per gallon of tank capacity unless emissions of organic compounds to the atmosphere are controlled by equipment or control schemes which demonstrate a combined collection and destruction efficiency of 90% by weight. All

    4. Control equipment and control schemes subject to this Section shall have written District approval prior to operation.

4. Excavation of Contaminated Soil:

    1. The person responsible for aeration of any contaminated soil shall provide the District with the following information no less than 24 hours prior to the spreading or heating of any contaminated soil:

        1. Maximum total quantity of soil to be aerated.

        2. Maximum quantity of soil to be aerated per day.

        3. Maximum degree of contamination.

        4. The chemical composition of contaminating organic compounds (e.g., gasoline, benzene, methylene chloride, etc.).

        5. A description of the basis from which these estimates were derived (soil analysis, Soil Vapor Contamination Assessment, etc.).

    The District shall be notified within 24 hours if any of the parameters change. During excavation and aeration, daily records shall be kept of the total quantity of soil and the organic content of soil that is aerated each day.

5. Uncontrolled Aeration:

    1. A person shall not aerate contaminated soil at a rate in excess of that specified

in Table 6 for the degree of organic content. The limitations in Table 6, page Vl-7, 8 apply to the entire facility, and indicate the volume of contaminated soil that may be added, on any one day, to soil that is already aerating.

Table 6:
Allowable Rate of Uncontrolled Aeration

ORGANIC CONTENT PPM (weight)	RATE OF UNCONTROLLED AERATION Cubic yards/day
<50	No Limit
>50 - ≤100	600
>100 - ≤500	120
>500 - ≤1000	60
>1000 - ≤2000	30
>2000 - ≤3000	15
>3000 - ≤4000	10
>4000 - ≤5000	8
>5000	0.1

2. Only one (1) uncontrolled soil aeration project shall take place at a facility at any one time.

6. Controlled Aeration:

1. Soil may be aerated at rates exceeding the limitations of Table 6, page VI-7, 8 provided emissions of organic compounds to the atmosphere are controlled by equipment or control schemes which demonstrate a combined collection and destruction efficiency of 90% by weight. All control equipment and control schemes subject to this Section shall have written District approval prior to operation.

7. Storage Piles:

1. Contaminated soil which is not being aerated shall be covered except when soil is being added or removed. No more than 10% of the storage pile or 20 cubic yards may be uncovered at any time without prior consent of the Control Officer. Any uncovered contaminated soil will be considered to be aerated. The soil may be covered with a layer of uncontaminated soil no less than six (6") inches deep; or it may be covered with a tarp or other covering, provided no head space where vapors may accumulate is formed.

8. Exemptions:

1. Storage Piles: Calculations of aeration volume shall not include storage piles that are covered nor shall they include active storage piles. The exposed surface of

an excavated hole shall not be included in calculations of aerated volume.

2. Excavated Hole: The exposed surface of an excavated hole shall not be included in calculations of aerated volume.

3. Sampling: Contaminated soil exposed for the sole purpose of sampling shall not be considered to be aerated. No more than 10% of the contaminated soil or 20 cubic yards may be exposed at any time without prior consent of the Air Pollution Control Officer. Removal of soil for sampling shall not qualify a pile as active

4. Non-Volatile Hydrocarbons: Soil contaminated solely by a known organic chemical or petroleum liquid, and that chemical or liquid has an initial boiling point of $302F^0$ or higher, provided that the soil is not heated.

9. Soil Sampling:

1. One composite sample shall be collected and analyzed for every 50 cubic yards of excavated contaminated soil to be aerated. At least one composite sample shall be collected from each inactive, uncovered storage pile within 24 hours of excavation. Samples are not required if the soil is uncontaminated.

10. Measurement of Organic Content:

1. Organic content of soil shall be determined by the EPA Reference Method 8010 or 8015, Regional Water Quality Control Board's Revised Analytical Methods, Attachment 2, 11/8/85, or other methods approved by the Control Officer.