§ 265.277

Soil caption exchange capacity (meq/100g)	Maximum cumulative application (kg/ha)
Less than 5	5 10 20

- (2)(i) The only food chain crop produced is animal feed.
- (ii) The pH of the waste and soil mixture is 6.5 or greater at the time of waste application or at the time the crop is planted, whichever occurs later, and this pH level is maintained whenever food chain crops are grown.
- (iii) There is a facility operating plan which demonstrates how the animal feed will be distributed to preclude ingestion by humans. The facility operating plan describes the measures to be taken to safeguard against possible health hazards from cadmium entering the food chain, which may result from alternative land uses.
- (iv) Future property owners are notified by a stipulation in the land record or property deed which states that the property has received waste at high cadmium application rates and that food chain crops must not be grown except in compliance with paragraph (c)(2) of this section.

[Comment: As required by §265.73, if an owner or operator grows food chain crops on his land treatment facility, he must place the information developed in this section in the operating record of the facility.]

[45 FR 33232, May 19, 1980, as amended at 47 FR 32368, July 26, 1982; 48 FR 14295, Apr. 1, 1983]

§265.277 [Reserved]

$\S\,265.278$ Unsaturated zone (zone of aeration) monitoring.

- (a) The owner or operator must have in writing, and must implement, an unsaturated zone monitoring plan which is designed to:
- (1) Detect the vertical migration of hazardous waste and hazardous waste constituents under the active portion of the land treatment facility, and
- (2) Provide information on the background concentrations of the hazardous waste and hazardous waste constituents in similar but untreated soils nearby; this background monitoring must be conducted before or in con-

junction with the monitoring required under paragraph (a)(1) of this section.

- (b) The unsaturated zone monitoring plan must include, at a minimum:
- (1) Soil monitoring using soil cores, and
- (2) Soil-pore water monitoring using devices such as lysimeters.
- (c) To comply with paragraph (a)(1) of this section, the owner or operator must demonstrate in his unsaturated zone monitoring plan that:
- (1) The depth at which soil and soilpore water samples are to be taken is below the depth to which the waste is incorporated into the soil;
- (2) The number of soil and soil-pore water samples to be taken is based on the variability of:
- (i) The hazardous waste constituents (as identified in §265.273(a) and (b)) in the waste and in the soil; and
 - (ii) The soil type(s); and
- (3) The frequency and timing of soil and soil-pore water sampling is based on the frequency, time, and rate of waste application, proximity to ground water, and soil permeability.
- (d) The owner or operator must keep at the facility his unsaturated zone monitoring plan, and the rationale used in developing this plan.
- (e) The owner or operator must analyze the soil and soil-pore water samples for the hazardous waste constituents that were found in the waste during the waste analysis under §265.273 (a) and (b).

[Comment: As required by §265.73, all data and information developed by the owner or operator under this section must be placed in the operating record of the facility.]

§ 265.279 Recordkeeping.

The owner or operator must include hazardous waste application dates and rates in the operating record required under § 265.73.

[47 FR 32368, July 26, 1982]

§ 265.280 Closure and post-closure.

(a) In the closure plan under §265.112 and the post-closure plan under §265.118, the owner or operator must address the following objectives and indicate how they will be achieved: