

STATE OF CALIFORNIA
REGIONAL WATER QUALITY CONTROL BOARD
CENTRAL COAST REGION

SUPPLEMENTAL SHEET FOR REGULAR MEETING JULY 9, 2004
Prepared on July 2, 2004

ITEM NUMBER: 20

SUBJECT: General Waste Discharge Requirements for Discharges of Fruit and Vegetable Processing Waste and Categorical Waiver of Report of Waste Discharge and Waste Discharge Requirements for Certain Small Discharges of Fruit and Vegetable Waste, Central Coast Region, Order No. R3-2004-0066

KEY INFORMATION: Sensient Dehydrated Flavors Co. is concerned about the impact of the proposed General WDRs on its Greenfield operation. At its Greenfield facility, Sensient processes vegetables and discharges wastewater under existing Waste Discharge Requirements Order Number 99-008.

COMMENTS

Sensient Dehydrated Flavors Co.
Joseph Martins, Director of Manufacturing
Pat Laubacher, Director of Logistics & Engineering

In letter dated June 28, 2004 and fax received on July 2, 2004, Sensient Dehydrated Flavors Co. expressed concern about the impact of the proposed General WDR on their Greenfield Facility. Various sections are discussed below:

Recommendation C.6. *Fruit and vegetable processing wastewater treatment and disposal systems should beneficially reuse (e.g., for irrigation or dust abatement) wastewater wherever feasible.*

If Sensient were required to reuse the wastewater for irrigation, the costs of arranging agreements with the farms that surround our facility could be extraordinary. Sensient does not own enough agricultural property near the plant site to make land application feasible. While we agree that in general reuse is desirable, it is not always appropriate. We suggest changing "feasible" to "appropriate" or "reasonably feasible."

Staff Response

Staff agrees if a discharger makes a case that reuse by irrigation is not feasible and appropriate then other disposal methods will be considered. The primary benefits for irrigation reuse is the reduction in water use and reduced potential for groundwater impacts. As a result, groundwater-monitoring wells are not normally required for large irrigation areas. Staff proposes to add language to further clarify Recommendation C.6. (see recommendation)

Specification D.5. *Wastewater treatment ponds shall be lined with either a relatively impermeable membrane, two feet of soil with a permeability of less than 10^{-6} centimeters per second, or an engineered alternative*

approved in writing by the Executive Officer. A variance from this requirement may be approved by the Executive Officer for facilities with low organic load wastewater (e.g. wash and cooling facilities with very little additional processing).

It is not clear whether this would apply to settling basins or is intended primarily for conventional oxidation type ponds. By their nature settling ponds for food processing wastewater tend to have a smaller footprint than oxidation ponds and tend to seal up rapidly, resulting in minimal potential for groundwater impacts.

Staff Response

Ponds that do not have liners are typically considered disposal ponds, which would increase the likelihood that we will require groundwater monitoring wells. Staff agrees that settling ponds do have a tendency to seal off but solids are periodically removed from settling ponds, which restores percolation until they seal off again.

Specification D.12. *The Organic loading rate of fruit and vegetable processing wastewater discharged to land shall not exceed a 30 day average of 100 pounds of Biochemical Oxygen Demand per acre per day or a peak load of up to 300 pounds of BOD per acre per day.*

For rapid infiltration basins, the USEPA and other authoritative references have recommended a maximum loading rate of 600 lbs/acre/day. BOD loading rates well in excess of 100 lbs/acre/day can be sustained without nuisance odors or significant adverse groundwater impacts.

Staff Response

Staff agrees it is possible that site conditions may allow for increased organic loading for disposal methods such as spreading basins. It will be necessary for the executive officer to approve such areas on a case by case basis. Staff proposes to add language to Specification D.5 to allow for submittal and approval of technical justification for a higher organic loading.

Specification D.14. *The discharge shall not cause a statistically significant increase of minimal constituent concentrations in underlying groundwater.*

This requirement is unrealistic given that even normal agricultural irrigation with groundwater tends to increase salt concentrations because of evapoconcentration.

Staff Response

Specification D.14 is from the Basin Plan; since it is a narrative limitation staff has the ability to assess if the discharge “causes” the increase.

Specification D.32., *Fruit and vegetable processing wastewater shall not be applied to land within 24 hours of a forecasted rain event, during rainfall, 24 hours after a rainfall event, or when soils are saturated.*

We assume this does not apply to rapid infiltration/spreading basins that are not technically “re-use” and where runoff containment is assured.

Staff Response

Staff agrees that Specification D.32. should not apply to areas that are not deemed reuse and where stormwater-contacting wastewater will be fully contained. Staff proposes to add language to clarify Specification D.32.

Effluent Monitoring for total dissolved solids.

We suggest adding Fixed Dissolved Solids (Standard Methods 2540 E) to the list of constituents. Fixed dissolved solids provides a much better indication of mineral salinity for food processing wastewater than TDS.

Staff Response

Staff agrees that fixed dissolved monitoring is a better indication of mineral salinity food processing wastewaters. Staff proposes to change effluent monitoring of the Monitoring and Reporting Program.

RECOMMENDATION

Modify Recommendation C.6., Specification D.12 and 32., and the Monitoring and Reporting Program as follows:

- C.6. Fruit and vegetable processing wastewater treatment and disposal systems should beneficially reuse (e.g., for irrigation or dust abatement) wastewater wherever feasible and appropriate.
- D.12. The organic loading rate of fruit and vegetable processing wastewater discharge to land shall not exceed a 30-day average of 100 pounds of Biochemical Oxygen Demand or a peak load of up to 300 pounds of BOD₅ per acre per day. If the discharge demonstrates that spreading basins are applicable and a higher loading rate is technically justified, the Executive Officer may approve a higher loading rate not exceed a 30 day average of 300 pounds of BOD₅ or a peak load up to 600 pounds of BOD₅ per acre per day.
- D.32. Fruit and vegetable processing wastewater shall not be applied to land, where stormwater contacting wastewater is not fully contained, within 24 hours of a forecasted rain event, during rainfall, 24 hours after a rainfall event, or when soils are saturated.

Effluent Monitoring: Replace Total Dissolved Solids with Fixed Dissolved Solids.