LATE REVISIONS – 29 January 2010

Item 22 **Hilmar Cheese Company and Reuse Area Owners, Hilmar Cheese Processing Plant, Merced County –** Consideration of tentative Waste Discharge Requirements R5-2010-____ and Time Schedule Order R5-2010-____.

The following late revisions have been made to the Tentative Waste Discharge Requirements R5-2010-____ and Monitoring and Reporting Program R5-2010 ____.

Finding 11 - Waste Discharge Requirements (WDR) R5-2010-____.
Page 3. Revise the third sentence of Finding 11 as follows.

A collection basin designated the "Cheese Basin" accepts wastewater from the milk receiving area, the three collection basins ~~Plants~~, and the protein plant (about 60 percent of the discharge).

Finding 14. - WDR R5-2010-____.
Page 4. Revise the second sentence of Finding 14 as follows.

Permeate from the secondary RO units is discharged to the effluent storage ponds (described in greater detail in Finding 15) prior to discharge to the Secondary Lands for crop irrigation.

Finding 28 – WDR R5-2010-____.
Page 7. Revise Finding 28 as follows.

Following completion of the WWTF Expansion Project, all waste discharged to Primary Lands and Secondary Lands will be fully treated and meet Effluent Limitations B.1 and B.2.

Finding 31. - WDR R5-2010-____.
Page 7. Revise the fifth sentence of Finding 31 as follows.

The maximum annual precipitation for a 100-year rainfall return period is estimated to be 21 inches.

Finding 42. - WDR R5-2010-____.
Page 9. Revise the first sentence of Finding 42 as follows.

As detailed in the CAO, ~~the~~ historic discharges from the facility ~~has~~ unreasonably degraded groundwater beneath the ~~Plant's storage ponds and~~ Primary Lands and adjacent areas.

Finding 57 – WDR R5-2010-____.
Page 13. Add the following to the end of Finding 57.

Discharges to the Primary Lands may cause some limited, temporary degradation. However, the discharge of partially-treated wastewater is limited in aerial extent and duration; is limited in volume by Provision F.1; and the CAO already requires the Discharger to address groundwater pollution under the Primary Lands. This Order thus ensures that existing high quality water will be maintained, and that discharges to Primary Lands will meet BPTC requirements.

Finding 59. - WDR R5-2010-____.
Page 13. Revise Finding 59 as follows.

Regarding organic~~s~~ material (BOD), the estimated ~~instantaneous and cycle~~ average BOD loading rate~~s~~ to the Reuse Areas ~~are~~ is less than 1 pound per acre per day, which is well below the USEPA maximum recommended rate of 100 pounds per acre per day (lbs/acre/day) according to USEPA Publication No. 625/3-77-007, Pollution Abatement in the Fruit and Vegetable Industry, which is designed to prevent impacts to groundwater under most conditions. Therefore, no degradation due to organic loading is expected to occur.

New Finding (Follows 61). - WDR R5-2010-____.
Page 14. Add a new finding following Finding 61 as follows, and renumber consecutive findings.

Regarding chloride, the effluent limit of 85 mg/L is less than the lowest typical agricultural limit of 106 mg/L (from *Water Quality for Agriculture*) and less than the lowest recommended Secondary MCL of 250 mg/L.

Finding 62 (now Finding 63). - WDR R5-2010-____.
Page 14. Revise Finding 62 as follows.

Regarding salinity in general, average TDS concentrations and EC values in the fully-treated wastewater ~~are~~ since April 2006, are less than 450 mg/L and 825 µmhos/cm, respectively, which are ~~is~~ less than the ambient ~~concentrations~~ conditions upgradient of the Plant and are ~~EC Values in the effluent average about 825 µmhos/cm, which is~~ less than the Recommended Secondary MCL~~s~~ of 500 mg/L and 900 µmhos/cm. Therefore, the discharge will not exceed the most stringent MCL nor cause or contribute to degradation of groundwater for salinity.

Finding 65 (now Finding 66). - WDR R5-2010-____.
Revise Finding 65 as follows.

The WWTF Expansion Project described in Findings 22 through 28 provides, or will provide, treatment and control of the discharge that incorporates:

a. Physical and biological treatment for BOD reduction that reduces organic loading to a nominal amount;

b. UF and RO treatment, with proposed expansion of RO or addition of EDR treatment or other applicable technology, which are the highest levels of salt removal technology available;

c. Storage of effluent in lined ponds that will limit any constituent of concern from reaching groundwater by percolation;

d. Application of wastewater (alone or blended with TID Water and dairy wastewater) on crops at rates not exceeding reasonable agronomic demand;

e. Application of wastewater at rates that will not allow it ~~wastewater~~ to stand for more than 48 hours, which is designed to preclude nuisance conditions such as mosquito breeding;

f. At least daily inspection of the Reuse Area during times of discharge;

g. Preparation of a Nutrient Management Plan to ensure nutrients are not applied to crops at greater than agronomic rates; and

h. Appropriate solids disposal practices.

Finding 69 (now Finding 70). - WDR R5-2010-____.
Revise Finding 69 as follows.

Unless exempt, release of designated waste is subject to full containment pursuant to the requirements of Title 27, CCR, Section 20005 et seq. (hereafter Title 27). Title 27 Section 20090(b) exempts discharges of designated waste to land from Title 27 containment standards and other Title 27 requirements provided the following conditions are met:

a. The applicable regional water board has issued WDRs, or waived such issuance;

b. The discharge is in compliance with the applicable basin plan; and

c. The waste is not hazardous waste and need not be managed according to Title 22, CCR, Division 4.5, Chapter 11, as a hazardous waste.

The discharge of effluent and the operation of treatment or storage facilities associated with a food processing facility is exempt from Title 27, provided any resulting degradation of groundwater is in accordance with the Basin Plan and

the waste need not be managed as a hazardous waste. None of the waste regulated by the proposed Order is hazardous waste nor required to be treated as hazardous waste. With treatment to remove organics and salinity, and application at agronomic rates, the discharge of fully-treated wastewater to land will not cause exceedance of groundwater quality objectives. The discharges authorized by this Order complies with the Antidegradation Policy, as described elsewhere in this Order.

The Discharger has demonstrated that, although currently lacking the capacity to treat all of its wastewater, it has the technical ability to treat all Plant wastewater to the limits specified in this Order. Once additional equipment is installed to treat all wastewater, the discharges to Primary Lands will meet all requirements of Title 27, Section 20090(b). The board finds that the discharges to Primary Lands will be exempt from Title 27 once the expanded treatment plant is fully operational. In the meantime, the discharge of the portion of wastewater that is not fully-treated is subject to a Time Schedule Order as required by State Water Board Order WQ-2009-0005 (City of Lodi), and this Order prohibits an increase in flow above 1.9 mgd until the Discharger achieves full compliance and meets requirements for Nutrient Management Plans. No additional interim measures are necessary for purposes of Title 27 compliance.

~~The discharge of effluent and the operation of treatment or storage facilities associated with a food processing facility is exempt from Title 27, provided any resulting degradation of groundwater is in accordance with the Basin Plan and the waste need not be managed as a hazardous waste. None of the waste regulated by the proposed Order is hazardous waste nor required to be treated as hazardous waste. With treatment to remove organics and salinity , lined storage ponds, and application at agronomic rates, the discharge authorized by the proposed WDRsof fully-treated wastewater to land will not cause exceedance of groundwater quality objectives.~~

The discharge to effluent storage ponds will not cause an exceedance of groundwater quality objectives. Only fully-treated effluent is discharged to them and the storage ponds are lined with an engineered compacted clay liner that will preclude leakage in an amount that would cause an exceedance of groundwater quality objectives.

The discharge of wastewater to the Plant's collection basins will not cause an exceedance of groundwater quality objectives as the basins are relatively small, reinforced concrete-lined sumps for pumping wastewater to the WWTF.

~~The discharge authorized by the proposed WDRs and complies with the Antidegradation Policy and is~~ The discharges to the Secondary Lands, effluent storage ponds and collection basins are therefore exempt from Title 27, under section 20090(b). In addition, effluent applied to ~~Secondary Lands~~ the Reuse Areas is a reuse that is exempt under Title 27, Section 20090(h).

Effluent Limitations B, 1. - WDR R5-2010- .
Page 19. Revise Effluent Limitation B.1 as follows.

The discharge from the WWTF to land (the effluent storage ponds or Reuse Areas) shall not exceed the following monthly averages for the constituents listed:

Effluent Limitations B, 2. - WDR R5-2010- .
Page 20. Revise Effluent Limitation B.2 as follows.

The discharge from the WWTF to land (the effluent storage ponds or Reuse Areas) shall not exceed the following 12-month rolling average for the constituents listed:

Discharge Specification C, 3, b. - WDR R5-2010- .
Page 20. Revise Discharge Specification C. 3. b as follows.

Unless determined by the Executive Officer or the Discharger to be significant sources of pollutants, only the following non-storm waters may be discharged to the storm water retention basin:

a. potable water line flushing;
b. landscape irrigation (greenbelts and planters around Plant) ~~and landscape~~ drainage;
c. foundation/footing or other minor dewatering drainage;
d. potable water; and
e. air conditioning, refrigeration, or compressor condensate.

Groundwater Specification E, a. - WDR R5-2010- .
Revise Groundwater Specification E, a, as follows.

Containing concentrations of constituents in excess of those identified below. ~~or background quality, whichever is greater.~~

(i) Nitrate as nitrogen of 10 mg/L.
(ii) TDS of 700 mg/L
(iii) Total Coliform Organisms of 2.2 MPN/100 mL.
(iv) For constituents identified in Title 22, the Primary and Secondary MCLs quantified therein~~.~~, or natural background quality, whichever is greater.

Provision F. 10 - Waste Discharge Requirements R5-2010- .
Page 22. Revise Provision F.10 as follows.

No later than **1 October** of each year, Hilmar Cheese will provide documentation that it has the available storage capacity in the effluent storage ponds and Reuse Areas ~~shall be the volume~~ necessary to comply with Provision F.9.

Attachment D - Waste Discharge Requirements R5-2010- .

Attachment D, Reuse Area Owner Table. Revise to include a fourth column indicating whether the parcel in question was also part of the Dairy program.

Storm Water Monitoring - Monitoring and Reporting Program (MRP) R5-2010-
Page 5 Add requirement to monitor storm water as follows.

STORM WATER MONITORING

The storm water monitoring shall include at least the following:

Frequency	Constituent/Parameter	Units	Sample Type
Quarterly	EC	µmhos/cm	Grab
Quarterly	Nitrate as N	mg/L	Grab
Quarterly	TKN	mg/L	Grab
Quarterly	Total Nitrogen (equals TKN + Nitrate as N)	mg/L	Calculated
Quarterly	Sodium	mg/L	Grab
Quarterly	Chloride	mg/L	Grab
Quarterly	BOD_5	mg/L	Grab
Quarterly	Freeboard	Feet[1]	Calculated

[1] To nearest tenth of a foot

Permanent markers (e.g., staff gauges) shall be placed in the storm water holding pond. The markers shall have calibrations indicating water level at the design capacity and available operational freeboard. The Discharger shall inspect the condition of the storm water holding pond once per week and write visual observations in a bound logbook. Notations shall include observations of whether weeds are developing in the water or along the bank, and their location; whether dead algae, vegetation, scum, or debris are accumulating on the storm water holding pond surface and their location; whether burrowing animals or insects are present; and the color of the pond water (e.g., dark sparkling green, dull green, yellow, gray, tan, brown, etc.).

Source Water Monitoring - MRP R5-2010-____-

Page 4. Revise the last row of the table for Source Water Monitoring as follows.

Frequency	Constituent/Parameter	Units	Sample Type
Quarterly	EC	µmhos/cm	Grab
Quarterly	Nitrate as N	mg/L	Grab
Quarterly	TKN	mg/L	Grab
Quarterly	Total Nitrogen (equals TKN + Nitrate as N)	mg/L	Calculated
Annually~~Quarterly~~	General Minerals	mg/L	Grab

Hydrogeology/Groundwater Conditions – Information Sheet – R5-2010-____

Page 4, first paragraph. Revise the depths of the listed water bearing zones as follows.

The region is reported to contain three primary water bearing zones: an uppermost unconfined aquifer (Modesto Formation) from about 0 to ~~7~~125 feet bgs; a semi-confined aquifer (Turlock Lake Formation) from about ~~7~~125 to ~~1~~2005 feet bgs; and a confined aquifer that is beneath the Corcoran Clay layer at depths from about 200 to ~~3~~2500 feet bgs.