

**LATE REVISIONS
CITY OF MANTECA
WASTEWATER QUALITY CONTROL FACILITY
SAN JOAQUIN COUNTY
NPDES Permit Renewal (NPDES No. CA0081558)
Regional Water Quality Control Board, Central Valley Region
Board Meeting – 17 April 2015
ITEM # 24**

1. Limitations and Discharge Requirements – Land Application Area Specifications. Section IV.B.1 (foot note 1)

Clarify the definition of the recycled water for this facility as shown in underline/strikeout format below:

¹ Recycled water applied to Land Application Areas for this Facility contains ~~undesinfected~~ undisinfected secondary municipal wastewater and food processing wastewater from Eckert Cold Storage Storage. ~~The Recycling General Order regulates only non-potable uses of domestic wastewater not food processing wastewater.~~

2. Limitations and Discharge Requirements – Land Application Area Specifications. Section IV.B.11

Modify Table 5 “Land Application Area Setback Requirements” as shown in underline/strikeout format below:

Table 5. Land Application Area Setback Requirements

| Setback Definition ¹ | Minimum Irrigation Setback (feet) |
|--|-----------------------------------|
| Edge of land application area to property boundary | 50 |
| Edge of land application area to a public road | 50 |
| Edge of land application area to an irrigation well | 100 |
| Edge of land application area to a domestic water supply well | 50 <u>100</u> |
| Edge of land application area to a manmade or natural surface water drainage course ² or spring | 25 |

¹ As defined by the wetted area produced during irrigation.

² Excluding ditches used exclusively for tailwater return.

3. Limitations and Discharge Requirements – Land Application Area Specifications

Add subsection IV.B.12, as shown underlined below:

12. Undisinfected Secondary Recycled Water for Irrigation of Land Application Areas

- a. Recycled water shall be at least Undisinfected Secondary Treated Effluent as defined in Title 22, section 60301.
- b. For the purpose of this Order, “use area” means an area with defined boundaries where recycled water is used or discharged.
- c. Recycled water shall be used in compliance with Title 22, section 60304. Specifically, uses of recycled water shall be limited to those set forth in Title 22, section(s) 60304(a), 60304(b), 60304(c), and 60304(d).

- d. All recycled water equipment, pumps, piping, valves, and outlets shall be appropriately marked to differentiate them from potable facilities, and these shall be of a type, or secured in a manner, that permits operation by authorized personnel only.
- e. Use shall be limited to surface irrigation of fodder, fiber, and/or feed crops; No recycled water used for irrigation, or soil that has been irrigated with recycled water, shall come into contact with the edible portion of food crops that may be eaten raw by humans.
- f. Grazing of milking animals within the use areas is prohibited.
- g. Irrigation of the use areas shall occur only when appropriately trained personnel are on duty;
- h. Use areas shall be inspected as frequently as necessary to ensure continuous compliance with the requirements of this Order.

4. Limitations and Discharge Requirements –Title 22 Tertiary Recycling Requirements

Modify subsection IV.C as shown in underline/strikeout format below:

C. Title 22 Tertiary Recycling Specifications

1. For the purpose of this Order, "use area" means an area with defined boundaries where recycled water is used or discharged.
2. Recycled water shall be used in compliance with Title 22, section 60304. Specifically, uses of recycled water shall be limited to those set forth in Title 22, section(s) 60304(a), 60304(b), 60304(c), and 60304(d).
3. All ~~reclaimed~~ recycled water equipment, pumps, piping, valves, and outlets shall be appropriately marked to differentiate them from potable facilities, and these shall be of a type, or secured in a manner, that permits operation by authorized personnel only.
4. ~~Recycled Water for Spray Irrigation of Land Application Areas.~~ Recycled water shall be at least Undisinfected Secondary Treated Effluent as defined in Title 22, section 60301, and shall comply with the following specifications:
 - a. ~~Use shall be limited to surface irrigation of fodder, fiber, and/or feed crops;~~
 - b. ~~No recycled water used for irrigation, or soil that has been irrigated with recycled water, shall come into contact with the edible portion of food crops that may be eaten raw by humans.~~
 - c. ~~Grazing of milking animals within the use areas is prohibited.~~
 - d. ~~Irrigation of the use areas shall occur only when appropriately trained personnel are on duty;~~

- e. ~~Use areas shall be inspected as frequently as necessary to ensure continuous compliance with the requirements of this Order.~~

5. 4. Recycled Water for Construction Purposes and Dust Control. Recycled water shall be at least Disinfected Tertiary-level Treated Effluent as defined in Title 22, section 60301, and shall comply with the following specifications:

- a. Use shall be limited for construction purposes and dust control;
- b. Notwithstanding the following requirements, the production, distribution, and use of recycled water shall conform to the June 2008 Engineering Report prepared for the City of Manteca by Nolte Engineering pursuant to Title 22, section 60323 and approved by the Division of Drinking Water (formerly Department of Public Health) on 2 September 2008.
- c. Signs shall be placed at the recycled water pump stations and shall be no less than 4 inches high and 8 inches wide with the wording: "**RECYCLED WATER – DO NOT DRINK**" displayed with the international Do Not Drink symbol;
- d. No recycled water shall be applied within ~~400~~ 50 feet of any water supply well;
- e. Any runoff shall be confined to the recycled water use area;
- f. Spray, mist, or runoff resulting from the use of recycled water at the project site shall be prevented from entering dwellings, designated outdoor eating areas, or food handling facilities in proximity to the intended recycled water application area;
- g. ~~Personnel~~ Personnel involved in transporting or using recycled water shall be informed of possible health hazards that may result from contact and use of recycled water. Supervisors must be appointed for the recycled water use areas and their staff must be trained on the hazards of working with recycled water and periodically retrained. The Site Supervisor shall be responsible for all site supervision issues, including responsibilities for most inspections, enforcement of rules, employee health and safety, and implementation and enforcement of the cross connection control program applicable to the use area;
- h. The turbidity of the filter effluent measured at FIL-001 shall not exceed:
 - 1. 2 NTU as a daily average;
 - 2. 5 NTU more than 5 percent of the time within a 24-hour period; and
 - 3. 10 NTU, at any time.
- i. The total coliform organisms in the effluent measured at REC-001 shall not exceed:
 - i. 2.2 most probable number (MPN) per 100 mL, as a 7-day median;
 - ii. 23 MPN/100 mL, more than once in any 30-day period; and
 - iii. 240 MPN/100 mL, at any time.

5. Limitations and Discharge Requirements – Groundwater Limitations. Section V.B

Add footnote 4 to Table 6, **Groundwater Limitations** as shown in underline/strikeout format below:

Table 6. Groundwater Limitations

| Parameter | Units | Groundwater Limitation | |
|---|------------|-------------------------|---|
| | | Water Quality Objective | Ambient Background Quality ¹ |
| Total Coliform Organisms | MPN/100 mL | <2.2 ⁴ | <2 |
| Total Dissolved Solids ² | mg/L | 1070 | 280 |
| Nitrate Nitrogen, Total (as N) (Effective 1 April 2020) | mg/L | 10 | 15.3 |

¹ Background threshold values based on statistical calculation of representative upgradient monitoring well(s).

² A cumulative impact limit that accounts for several dissolved constituents in addition to those listed here separately (e.g., alkalinity (carbonate and bicarbonate), calcium, hardness, phosphate, and potassium).

³ The water quality objectives for total dissolved solids are based on the site-specific study performed by the Discharger and submitted in October 2012. This Order requires compliance with the Nitrate Nitrogen, Total (as N) final groundwater limitations by 1 April 2020.

⁴ 7-day median

6. Attachment F – Satisfaction of Anti-Backsliding Requirements. Section IV.D.3

Add ammonia to subsection IV.D.3.b as shown in underline/strikeout format below:

b. CWA section 402(o)(2). CWA section 402(o)(2) provides several exceptions to the anti-backsliding regulations. CWA 402(o)(2)(B)(i) allows a renewed, reissued, or modified permit to contain a less stringent effluent limitation for a pollutant if information is available which was not available at the time of permit issuance (other than revised regulations, guidance, or test methods) and which would have justified the application of a less stringent effluent limitation at the time of permit issuance.

As described further in section IV.C.3.b of this Fact Sheet, updated information that was not available at the time Order R5-2009-0095 was issued indicates that aluminum, copper, and methylene blue active substances do not exhibit reasonable potential to cause or contribute to an exceedance of water quality objectives in the receiving water. Furthermore, based on updated pH and temperature data the effluent limits for ammonia have been revised. The updated information that supports the relaxation of effluent limitations for these constituents includes the following:

i. Aluminum. Effluent monitoring data collected between May 2011 and April 2014 indicates that aluminum in the discharge does not exhibit reasonable potential to cause or contribute to an exceedance of the Secondary MCL or the NAWQC acute criterion.

ii. Copper. Effluent and receiving water monitoring data collected between May 2011 and April 2014 for copper indicates that the discharge does not exhibit reasonable potential to cause or contribute to an exceedance of the CTR criteria for the protection of freshwater aquatic life.

iii. Methylene Blue Active Substances. Effluent monitoring data collected between May 2011 and April 2014 indicates that methylene blue active substances in the discharge does not exhibit reasonable potential to cause or contribute to an exceedance of the Secondary MCL. Additionally, excess foaming has not been observed in the San Joaquin River in the vicinity of the outfall during the term of Order R5-2009-0095.

~~iii.~~ **iv. Ammonia.** Previous Order R5-2009-0095 includes effluent limitations for ammonia established based on USEPA's 1999 recommended water quality criteria for ammonia, which vary based on pH and temperature. The effluent limitations for ammonia in this Order are based on the same USEPA recommended criteria, but have been revised considering updated pH and temperature data collected during the term of Order R5-2009-0095.

Thus, removal of the effluent limitations for aluminum, copper, and methylene blue active substances from Order R5-2009-0095, and the relaxation of the ammonia effluent limitations ~~is~~ are in accordance with CWA section 402(o)(2)(B)(i), which allows for the ~~removal~~ relaxation of effluent limitations based on information that was not available at the time of permit issuance.