

**CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD
REGION 9, SAN DIEGO REGION**

ATTACHMENT F

FACT SHEET

**TENTATIVE ORDER NO. R9-2007-0009
NPDES PERMIT NO. CA0109011**

TABLE OF CONTENTS

I.	Permit Information	3
II.	Facility Description	4
A.	Description of Wastewater Treatment or Controls	5
B.	Discharge Points and Receiving Waters	6
C.	Summary of Existing Requirements and Self-Monitoring Report (SMR) Data	6
D.	Summary of Report of Waste Discharge (RWD)	7
E.	Review of NMP	8
F.	Compliance Summary	9
III.	Applicable Plans, Policies, and Regulations	9
A.	Legal Authorities	9
B.	California Code of Regulations	10
C.	California Environmental Quality Act (CEQA)	10
D.	State and Federal Regulations, Policies, and Plans	10
IV.	Rationale For Effluent Limitations and Discharge Specifications	12
A.	Discharge Prohibitions	12
B.	Technology-Based Effluent Limitations	12
1.	Applicable Technology-Based Effluent Limitations (TBELs)	12
C.	Water Quality-Based Effluent Limitations (WQBEL)	13
1.	Applicable Beneficial Uses and Water Quality Criteria and Objectives	13
2.	Determining the Need for WQBEL	13
V.	Rationale for Receiving Water Limitations	14
A.	Surface Water	14
B.	Groundwater	14
VI.	Monitoring and Reporting Requirements	14
A.	Receiving Water Monitoring	14
1.	Surface Water (Not Applicable)	14
2.	Groundwater	14
B.	Other Monitoring Requirements (IF APPLICABLE)	14
VII.	Rationale for Provisions	15
A.	Special Provisions	15
1.	Nutrient Management Plan (NMP)	15
2.	Facility Management	16
3.	Flood Protection	16
4.	Re-Opener Provisions	16
5.	Special Studies and Additional Monitoring Requirements	16
B.	Standard Provisions	17
VIII.	Public Participation	17
A.	Notification of Interested Parties	17
B.	Written Comments	17
C.	Public Hearing	18
D.	Waste Discharge Requirements Petitions	18
E.	Information and Copying	18
F.	Register of Interested Persons	19

G. Additional Information..... 19

LIST OF TABLES

Table 1. Facility Information..... 4
Table 2. Groundwater Monitoring Wells 6
Table 3. Current Groundwater Monitoring Requirements..... 6
Table 4. Groundwater Data for Domenigoni Well..... 6
Table 5. Groundwater Data for Stiefel Well..... 7
Table 6. Groundwater Data for Wesselink Well 7
Table 7. Beneficial Uses 11

Attachment F – Fact Sheet

As described in Section II of this Order, this Fact Sheet includes the specific legal requirements and detailed technical rationale that serve as the basis for the requirements of this Order.

I. PERMIT INFORMATION

Mark Stiefel (hereinafter Discharger) is the owner and operator of Stiefel Dairy (hereinafter Discharger) a Large Concentrated Animal Feeding Operation (CAFO).

The facility is located on 200 acres in the SE ¼, of Section 4, T6S, R2E, SBB&M in the Domenigoni Subarea (902.35) of the Murrieta Hydrologic Area (902.30) of the Santa Margarita Hydrologic Unit (902.00). The closet waterbody is the Diamond Valley Lake Reservoir, located approximately 1 mile from the facility. The facility is currently regulated under Order No. 2000-18, adopted on April 12, 1999 and expires/expired April 12, 2005.

Administrative information related to the facility is listed in *Table 1. Facility Information*.

Table 1. Facility Information

WDID	9 000000 452
File #	08-0452
Discharger	Stiefel Dairy
Name of Facility	Jack and Mark Stiefel Dairy
Facility Address	32750 Holland Road
	Winchester, CA 92596
	Riverside County
Facility Contact, Title and Phone	Mark Stiefel, Owner/Operator, (951) 926-1247
Authorized Person to Sign and Submit Reports	Mark Stiefel, Owner, (951) 926-1247
Mailing Address	Marcia Crouse, 32750 Holland Road , Winchester, CA 92596
Billing Address	Marcia Crouse, 32750 Holland Road , Winchester, CA 92596
Type of Facility	Large CAFO
Classification	
Threat to Water Quality	2
Complexity	C
Fee Code	10
Construction Requirements	N
Industry Class	
Ownership Type	PRIV
Funded	N
Pretreatment Program	N
Reclamation Requirements	None
Baseline Flow	NA
Design Flow	NA
Waste Type 1	Non-Hazardous Wastewater
Waste Type 2	Non-Hazardous Solid Waste
Watershed	Santa Margarita
Waterbody	Section 4, T6S, R2E, SBB&M in the Domenigoni Subarea (902.35) of the Murrieta Hydrologic Area (902.30) of the Santa Margarita Hydrologic Unit (902.00)
Receiving Water Type	Groundwater
Hydrologic Unit	Santa Margarita Hydrologic Unit (902.00)

The Discharger filed a report of waste discharge and submitted an application for renewal of its Waste Discharge Requirements (WDRs) and National Pollutant Discharge Elimination System (NPDES) permit on October 20, 2004. On November 30, 2005, the Discharger submitted a Nutrient Management Plan (NMP). A site visit was conducted on October 20, 2006, to observe operations and collect additional data to develop permit limitations and conditions.

II. FACILITY DESCRIPTION

Stiefel Dairy is operated as a Concentrated Animal Feed Operation (CAFO). The facility is located on approximately 200 acres. The milking herd size during the last NPDES inspection conducted

on November 18, 2004 was approximately 975 head. The dairy maintains an additional 150 head of drystock (not currently milking), and approximately 60 head of youngstock (under five months), which will become milking cows. At five months, the youngstock are transported to a specialty feeding facility in Utah. At two years, the youngstock are returned to Stiefel Dairy to join the milking herd. The current NPDES Permit limits the milking herd size to a maximum of 1,500 head. The facility representative stated that he does not believe the herd size will increase significantly in the near future. Further, the facility representative indicated that the number of head remains relatively constant throughout the calendar year.

Well water (Well Nos. 1 and 2) is the water source for all industrial operations at the facility. Process wastewaters are generated from milking parlor operations and from feed lane flushing. No other wastewaters are produced on-site.

Cows are washed prior to milking in a paved holding area adjacent to the milking parlor. Washing occurs twice a day. The Discharger estimates that a maximum of 50 gallons of wastewater is produced per milking cow per day. The NMP estimates that approximately 15 gallons of wastewater is produced per milking cow per day. The facility utilizes an iodine solution for bacterial control. After milking, the cows are led back to the corrals and the milking parlor is washed down.

A. Description of Wastewater Treatment or Controls

Wash waters from the milking parlor are collected in sumps and pumped to one of the flush water storage tanks. The flush water is used to clean or "flush" out the paved cattle feed lanes to remove manure and other wastes from the lanes. The flush water is collected in the slurry collection sump at the south end of the feed lanes and is pumped through a manure separator to remove the solids. The manure is stored in a pile at the south end of the facility, and the flush water filtrate discharges via an underground sewer to the wastewater retention ponds for storage. Storm water runoff from the corrals, hay storage area, feed additive storage bins, the center corridor, manure storage pile, and paved areas of the facility are discharged via an underground sewer system to the wastewater retention ponds during a storm event. Storm water from off-site is diverted by drainage ditches around the facility.

There are five clay-lined wastewater retention ponds and two auxiliary storage fields, with a total storage capacity of approximately 2.68 million ft³. The wastewater volume generated over 60 days of operation, as well as run off from the production area and manured areas during a 24-hour, 25-year storm event is calculated to be about 0.737 million ft³. Wastewater and storm water from facility operations first discharge to the main south pond, which through an overflow pipe connects to the north pond. The south pond is equipped with floating pumps and aerators to transport liquid to other storage ponds, and to aid in solid settling. Solids are allowed to settle out in the north pond prior to being directed to the flush tanks or used. Additional storage fields are available to contain storm water run off from manured areas.

Water troughs are located at one end of each corral. The rectangular troughs are approximately 20 feet by 8 feet, and are equipped with auto shutoff devices to prevent overflowing. Hay is stored on concrete and dirt in the center corridor between the northern corrals. Feed additives (almond hulls, bakery wastes) are stored in covered bins at the north end of the facility.

B. Discharge Points and Receiving Waters

Without an adequate NMP, wastewater and contaminated storm water runoff would discharge to Warm Springs Creek, a water of the U.S., which is tributary to the Santa Margarita River.

C. Summary of Existing Requirements and Self-Monitoring Report (SMR) Data

The current Order (Order No. 2000-18), contains discharge specifications and facility design and operation specifications. No numerical effluent limitations are contained in the current Order.

The current Monitoring and Reporting Program (Order No. 2000-18), contains groundwater monitoring requirements for the three locations listed in *Table 2. Groundwater Monitoring Wells.*

Table 2. Groundwater Monitoring Wells.

Station	Description
1	Domenigoni Well
2	Stiefel Well
3	Wesselink Well

Groundwater monitoring requirements and frequencies at the three monitoring locations from the current Order are listed in *Table 3. Current Groundwater Monitoring Requirements.*

Table 3. Current Groundwater Monitoring Requirements.

Parameter	Unit	Frequency
Total Dissolved Solids	mg/L	Annual
Nitrate (N)	mg/L	Annual
Boron	mg/L	Once per 5 years
Sodium	mg/L	Once per 5 years
Magnesium	mg/L	Once per 5 years
Calcium	mg/L	Once per 5 years
Sodium Adsorption Ration (Adjusted)	mg/L	Once per 5 years

Groundwater monitoring data collected from Domenigoni Well (Monitoring Station 1) and representative monitoring data from the term of the current Order are listed in *Table 4. Groundwater Data for Domenigoni Well.*

Table 4. Groundwater Data for Domenigoni Well.

Constituents (units)	Maximum Reported Value ¹
Total Dissolved Solids (mg/L)	1500
Nitrate as N (mg/L)	29
Boron (mg/L)	140
Sodium (mg/L)	160
Magnesium (mg/L)	58
Calcium (mg/L)	210
Sodium Adsorption Ration (adjusted)	2.5 – 5.8

¹ For a time period of two years (from Nov. 2001 to Nov. 2003)

Groundwater monitoring data collected from Stiefel Well (Monitoring Station 2) and representative monitoring data from the term of the current Order are listed in *Table 5. Groundwater Data for Stiefel Well*.

Table 5. Groundwater Data for Stiefel Well

Constituents (units)	Maximum Reported Value ¹
Total Dissolved Solids (mg/L)	1100
Nitrate as N (mg/L)	7.2
Boron (mg/L)	120
Sodium (mg/L)	330
Magnesium (mg/L)	43
Calcium (mg/L)	160
Sodium Adsorption Ration (adjusted)	2.2 – 24

¹ For a time period of two years (from Nov. 2001 to Nov. 2003)

Groundwater monitoring data collected from Wesselink Well (Monitoring Station 3) and representative monitoring data from the term of the current Order are listed in *Table 6. Groundwater Data for Wesselink Well*.

Table 6. Groundwater Data for Wesselink Well.

Constituents (units)	Maximum Reported Value ¹
Total Dissolved Solids (mg/L)	1040
Nitrate as N (mg/L)	10
Boron (mg/L)	130
Sodium (mg/L)	130
Magnesium (mg/L)	42
Calcium (mg/L)	150
Sodium Adsorption Ration (adjusted)	2.2 – 6.1

¹ For a time period of two years (from Nov. 2001 to Nov. 2003)

Groundwater monitoring data from all three locations showed that concentration of Total Dissolved Solids (TDS) has not exceeded the 2,000 mg/L water quality objective established in the Basin Plan for the area.

D. Summary of Report of Waste Discharge (RWD)

The NPDES permit renewal application requests the renewal of an NPDES permit for a dairy farm with a maximum animal population of 1,500 milking cows and 250 dry cows. The NPDES permit renewal application describes the waste management and water quality protection facilities at the Stiefel Dairy to include the following:

1. Drainage channels are used to divert storm water runoff around the dairy facility.
2. Drainage from corrals and exposed areas is discharged to retention ponds.
3. Milking parlor washwater is collected in a sump, pumped to reservoirs located at the uphill end of the feed lanes, and used to flush the cattle feeding lanes. The flush water

- discharges to a slurry collection sump, from where it is pumped to manure solids separators with a reported capacity in excess of 150,000 gallons per day (gpd).
4. The liquid drainage from the separators, gravity overflow from the main slurry collection sump and surface drainage from the corrals discharge to two wastewater retention ponds that have been certified to have a total storage capacity of 14 acre-feet. Three additional wastewater retention ponds are available for storage. The three additional retention ponds have been certified to have a total storage capacity of 18.6 acre-feet.
 5. Manure solids from the corrals are continually scraped and transported off-site to surrounding agricultural properties at agronomic rates.
 6. Wheel change sprinklers plus hand laterals distribute the waste water from the retention ponds to 15 acres of pasture, but the wastewater can be used to irrigate approximately 120 acres on the dairy property if necessary to maintain appropriate water or nutrient application rates as required.

The EPA 2003 CAFO rule [40 CFR 122.42(e)] requires that NPDES permits for all CAFO must include a requirement for the permittee to develop and implement an NMP to achieve effluent limitations and standards. The Discharger submitted a supplemental Nutrient Management Plan (NMP) to the Regional Board on November 30, 2005, prepared by the Natural Resources Conservation Service.

E. Review of NMP

The U.S. EPA's Proposed Rule (Federal Register Vol. 71, No. 126) requires that the permitting authority review the NMP prior to issuing an individual permit; provide the public opportunity to review and comment on the NMP; and incorporate terms of the NMP into the NPDES permit.

1. The Regional Board has reviewed the NMP for its completeness and sufficiency, and found that the NMP was prepared by a qualified person (the agency); that the assumptions used, the calculations performed, and the management practices proposed are reasonable, practicable, and acceptable to this Regional Board. In addition, the Regional Board performed an independent calculation for storage capacity using more conservative assumptions (i.e. 50 gallons vs. 15 gallons wastewater per cow per day; 150 days vs. 60 days of storage duration, etc.), and found that the facility provides adequate storage capacity to contain all wastewater plus storm runoff from a 25-year, 24-hour storm event.
2. The Regional Board has incorporated the terms from the NMP into the NPDES permit under Section VI.1. According to the EPA 2003 CAFO rule, the NMP must, to the extent applicable, include BMPs and minimum elements established in 40 CFR 122.42(e)(1)(i)-(ix), to achieve compliance with the CAFO effluent limitations established in 40 CFR 142.31(a). The NMP described that wastewater and solid wastes will not be applied to cropland or pastureland within or outside of the property. Wastewater will be disposed off through evaporation which is in contrary with No. 6 above, and manure will be removed from the property for off site disposal. The permit is written based on, and reflects the Discharger's prescribed waste management practices in the NMP. If the Discharger wishes to use waste disposal methods other than those described in the NMP, the Discharger will need to submit an amended NMP

to this Regional Board, and either a new or amended NPDES permit will need to be issued by this Regional Board.

The Regional Board considered the minimum elements established in 40 CFR 122.42(e)(1)(i)-(ix), as well as State Board and Regional Board CAFO policies in establishing NMP requirements in Section VI.1.

3. The Regional Board will fulfill the requirement of providing the public with an opportunity to review and comment on the NMP by incorporating terms of the NMP in the permit, by notifying the public through Regional Board's meeting agenda and newspaper publication, as well as mailing the draft permit to interested parties and posting it to the Regional Board's website. The public provided at least 30 days for review and commenting prior to the scheduled Regional Board meeting.

F. Compliance Summary

The Regional Board has identified no major compliance issues with this Discharger.

III. APPLICABLE PLANS, POLICIES, AND REGULATIONS

The requirements contained in the tentative Order are based on the requirements and authorities described in this section.

A. Legal Authorities

This Order is issued pursuant to section 402 of the federal Clean Water Act (CWA) and implementing regulations adopted by the U.S. Environmental Protection Agency (USEPA) and Chapter 5.5, Division 7 of the California Water Code (CWC). It shall serve as a National Pollutant Discharge Elimination System (NPDES) permit for point source discharges from this facility to surface waters. This Order also serves as Waste Discharge Requirements pursuant to Article 4, Chapter 4 of the CWC.

Pursuant to the CWA, discharges from CAFOs are point sources and are subject to NPDES permitting requirements. 40 CFR of Federal Regulations (CFR) Parts 9, 122, 123, and 412 establish regulations and effluent limit guidelines for Concentrated Animal Feeding Operations. 40 CFR Part 122.23 defines a Large Concentrated Animal Feeding Operation (Large CAFO) as any animal feeding operations that has more than 700 mature dairy cows, whether milked or dry. The current number of milking cows (975) at the dairy classifies the dairy as a Large CAFO. Once defined as a Large CAFO all of the waste generated by the operation is subject to the applicable requirements of 40 CFR Parts 122 and 412.

U.S. EPA's 2003 CAFO rule required all CAFOs to seek coverage under an NPDES permit. CAFO industry organizations and environmental groups filed petitions for judicial review of certain aspects of the 2003 CAFO rule. On February 28, 2005, the U.S. Court of Appeals for the Second Circuit ruled on these petitions and upheld most provisions of the 2003 rule but vacated and remanded others. In response to the court ruling, U.S. EPA issued a proposed rule on June 30, 2006 (Federal Register Vol. 71, No. 126), intends to make only those changes necessary to address the court's decision. First, EPA proposes to require only the owners and operators of those CAFOs that discharge or propose to discharge to seek coverage under a permit. Second, EPA proposes to require CAFOs seeking coverage under a permit to submit their nutrient management plan (NMP) with their application for an individual permit or notice of intent to be

authorized under a general permit. Permitting authorities would be required to review the plan and provide the public with an opportunity for meaningful public review and comment. Permitting authorities would also be required to incorporate terms of the NMP as NPDES permit conditions. Third, this action proposes to authorize permit writers, upon request by a CAFO, to establish best management, zero discharge effluent limitations when the facility demonstrates that it has designed an open containment system that will comply with the no discharge requirements. The proposed rule also responds to the court's remand orders regarding water-quality based effluent limitations (WQBELs) and pathogens.

The State of California adopted the Porter-Cologne Water Quality Control Act (Porter-Cologne Act) into the California Water Code, Division 7 with the most recent amendments becoming effective on January 1, 2005. The Porter-Cologne Water Quality Control Act (Porter-Cologne Act), establishes the State Water Resources Control Board (State Board), and the Regional Boards as the principle state agencies responsible for control of water quality. The Porter-Cologne Act empowers the Regional Boards to formulate and adopt, for all areas within the regions, a Water Quality Control Plan (Basin Plan) which designates beneficial uses and establishes water quality objectives. Further, the Porter-Cologne Act designates the Regional Boards with the authority to issue waste discharge requirements to regulate the discharge of waste to surface and ground waters of the state.

B. California Code of Regulations

Regulations governing discharges from CAFOs are contained in the Combined State Water Resources Control Board/California Integrated Waste Management Board AB 1220 Regulations, California Code of Regulations (CCR), which became effective on July 18, 1997. Division 2, Subdivision 1, Chapter 7, Subchapter 2, Article 1 of the CCR contains requirements for CAFOs.

C. California Environmental Quality Act (CEQA)

This action to adopt an NPDES permit is exempt from the provisions of the California Environmental Quality Act (Public Resources Code Section 21100, et seq.) in accordance with Section 13389 of the CWC.

D. State and Federal Regulations, Policies, and Plans

1. **Basin Plan.** The Regional Board adopted a *Water Quality Control Plan for the San Diego Basin (9)* [hereinafter Basin Plan] on September 8, 1994. The Basin Plan designates beneficial uses, establishes water quality objectives, and contains implementation programs and policies to achieve those objectives for all waters addressed through the Basin Plan. Specifically, the Regional Board's dairy waste management policy (Resolution No. 87-71) is incorporated into the Basin Plan. One of the waste management measures limits the amount of manure application to 3 tons dry weight per acre per year for land disposal land, and 12 tons dry weight per acre per year for croplands. By not applying manure to cropland within the property, the Discharger is in compliance with Regional Board's dairy policy as incorporated in the Basin Plan. Beneficial uses applicable to ground waters(s) in the Domenigoni Subarea (902.35) of the Murrieta Hydrologic Area (902.30) of the Santa Margarita Hydrologic Unit (902.00) are listed in *Table 7. Beneficial Uses*.

Table 7. Beneficial Uses

Discharge Point	Receiving Water Name	Beneficial Use(s)
001	Warm Spring Creek	<u>Existing:</u> Municipal (MUN); Agricultural Supply (AGR); Industrial Service Supply (IND); Industrial Process Supply (PROC); Non-contact Water Recreation (REC-2); Warm Fresh water Habitat (WARM); and Wildlife Habitat (WILD) <u>Potential:</u> Contact Water Recreation (REC-1)
	Ground waters(s) in the Domenigoni Subarea (902.35) of the Murrieta Hydrologic Area (902.30) of the Santa Margarita Hydrologic Unit (902.00)	<u>Existing:</u> Municipal (MUN); Agricultural Supply (AGR); Industrial Service Supply (IND); and Industrial Process Supply (PROC). <u>Intermittent:</u> None. <u>Potential:</u> None.

2. **Combined State Water Resources Control Board/California Integrated Waste Management Board AB 1220 Regulations** CCR Division 2, Subdivision 1, Chapter 7, Subchapter 2, Article 1, contains requirements for CAFOs. These requirements shall be implemented through Waste Discharge Requirements issued to a CAFO facility.
3. **U.S. EPA 2003 CAFO Rule** 40 CFR 122 establishes National Pollutant Discharge Elimination System (NPDES) Permit regulations; 40 CFR 122.42(e) establishes additional conditions applicable to concentrated animal feeding operations (CAFOs). 40 CFR 412 establishes Effluent Limitation Guidelines (ELGs) for CAFOs; 40 CFR 412.31 establishes technology-based effluent limitations for CAFOs.
4. **Anti-Degradation.** 40 CFR 131.12 requires that State water quality standards include an anti-degradation policy consistent with the Federal policy. The State Board established California's anti-degradation policy in State Board Resolution No. 68-16, which is deemed to incorporate the requirements of the Federal anti-degradation policy. Resolution No. 68-16 requires that existing quality of waters be maintained unless degradation is justified based on specific findings. The permitted discharge is consistent with the anti-degradation provision of 40 CFR 131.12 and State Board Resolution No. 68-16.
5. **Anti-Backsliding Requirements.** Sections 402(o)(2) and 303(d)(4) of the CWA and federal regulations at 40 CFR §122.44(l) prohibit backsliding in NPDES permits. These anti-backsliding provisions require effluent limitations in a reissued permit to be as stringent as those in the current permit, with some exceptions where limitations may be relaxed.

- 6. Monitoring and Reporting Requirements.** Section 122.48 of 40 CFR requires all NPDES permits to specify requirements for recording and reporting monitoring results. Sections 13267 and 13383 of the CWC authorize the Boards to require technical and monitoring reports. The Monitoring and Reporting Program section establishes monitoring and reporting requirements to implement Federal and State requirements.

IV. RATIONALE FOR EFFLUENT LIMITATIONS AND DISCHARGE SPECIFICATIONS

The CWA requires point source discharges to control the amount of conventional, nonconventional, and toxic pollutants that are discharged into the waters of the United States. The control of the discharge of pollutants is established through effluent limitations and other requirements in NPDES permits. The CWA establishes two principal bases for effluent limitations. First, dischargers are required to meet, at a minimum, technology-based effluent limitations that reflect several levels of control that consider both technical factors as well as costs and economic impact. Second, they are required to meet more stringent WQBEL that are needed to protect applicable designated uses of the receiving water.

A. Discharge Prohibitions

The following discharge prohibitions have been established in Order No. R9-2007-0009 based on the provisions and requirements contained in the State and Federal regulations, policies and plans identified in Section III.D.

1. The discharger shall not cause pollution, contamination, or nuisance as those terms are defined in CWC Section 13050, as a result of the treatment, storage or discharge of wastes.
2. Dischargers of wastes, including windblown spray and runoff of effluent applied for irrigation, to lands which have not been specifically described to the Regional Board and for which valid waste discharge requirements are not in force are prohibited.
3. The dumping or deposition of waste in any manner that may permit it to be washed into waters of the United States is prohibited unless authorized by the Regional Board.
4. The wastewater or waste solids disposal operation shall not cause unusual odors or other nuisance beyond the limits of the dairy property.
5. The Discharger shall comply with the waste discharge prohibitions contained in the Basin Plan.

B. Technology-Based Effluent Limitations

1. Applicable Technology-Based Effluent Limitations (TBELs)

Technology-based effluent limits are intended to achieve a minimum level of treatment of pollutants for point source discharges. Effluent limitation guidelines and standards (ELGs) that apply to a CAFO are defined in 40 CFR Part 412.

40 CFR 412.31 establishes the following effluent limitations attainable by the application of the best practicable control technology currently available (BPT): whenever rainfall events cause an overflow of process wastewater from a facility designed, constructed, operated,

and maintained to contain all process-generated wastewaters plus the runoff from a 25-year, 24-hour rainfall event at the location of the point source, any process wastewater pollutants in the overflow may be discharged into U.S. waters.

As specified in 40 CFR section 122.42(e) and 412(c)(1), the discharger must develop and implement a nutrient management plan (NMP). The NMP shall meet the minimum requirements contained within 40 CFR sections 122.42(e) and 412(c)(1) as summarized in Section VII.A.1. of this Fact Sheet.

C. Water Quality-Based Effluent Limitations (WQBEL)

Water quality-based effluent limitations (WQBELs) are one of two fundamental types of limitations imposed in NPDES permits. The other is technology-based limitations. The U.S. EPA 2003 CAFO rule (in the preamble) only addressed WQBELs to land application discharges. EPA determined that when land applications of manure, litter and process wastewater follow the site-specific NMP that ensure appropriate agricultural utilization of nutrients, the precipitation-related discharges qualify as agricultural stormwater and is excluded as "point source" [See CWA Section 502(14)]. Because the technology-based ELGs in the 2003 CAFO rule already prohibited all precipitation related discharges, and agricultural stormwater runoff is statutorily exempt from any effluent limitations, EPA did not promulgate any WQBELs in the 2003 CAFO rule. However, WQBELs can be included in permits as necessary with respect to non-precipitation-related land application and production area discharges. NPDES-authorized States can also include WQBELs as necessary under its own state regulatory authorities.

1. Applicable Beneficial Uses and Water Quality Criteria and Objectives

Applicable State WQBELs for surface water include the beneficial uses and numerical water quality objectives for the Warm Spring Creek in the Santa Margarita River Watershed, as established in the Basin Plan, and summarized in Section III.D.1. of this Fact Sheet and Table 3-2 of the Basin Plan.

Similarly, Applicable State WQBELs for ground water include the beneficial uses and numerical water quality objectives for the Domenigoni Subarea (902.35) of the Murrieta Hydrologic Area (902.30) of the Santa Margarita Hydrologic Unit (902.00), as established in the Basin Plan, and summarized in Section III.D.1. of this Fact Sheet and Table 3-3 of the Basin Plan.

2. Determining the Need for WQBEL

No waste discharge to surface water is allowed unless from overflow during a 25-year, 24-hour storm event, therefore no surface water WQBEL is need.

Numerical WQBEL for groundwater is determined based on the water quality objectives established in the Basin Plan (Table 3-3) for the Domenigoni Subarea (902.35) of the Murrieta Hydrologic Area (902.30) of the Santa Margarita Hydrologic Unit (902.00). Waste discharge from CAFO operation including groundwater percolation from waste storage ponds and land application shall not cause concentration of TDS to exceed 2,000 mg/L more than 10% of the time during any one year period. Attachment E, Monitoring and Reporting Program establishes groundwater limitations and monitoring requirements. .

V. RATIONALE FOR RECEIVING WATER LIMITATIONS

A. Surface Water

Table 3-2 of the Basin Plan establishes specific numerical water quality objectives for Warm Spring Creek surface water in the Santa Margarita River Watershed that are protective of the applicable beneficial uses.

B. Groundwater

Table 3-3 of the Basin Plan establishes specific numerical water quality objectives for the Domenigoni Subarea (902.35) of the Murrieta Hydrologic Area (902.30) of the Santa Margarita Hydrologic Unit (902.00) that are protective of the applicable beneficial uses.

VI. MONITORING AND REPORTING REQUIREMENTS

Section 122.48 of 40 CFR requires all NPDES permits to specify recording and reporting of monitoring results. Sections 13267 and 13383 of the CWC authorize the boards to require technical and monitoring reports. The Monitoring and Reporting Program, Attachment E of this Order, establishes monitoring and reporting requirements to implement federal and state requirements. The following provides the rationale for the monitoring and reporting requirements contained in the Monitoring and Reporting Program for this facility.

A. Receiving Water Monitoring

1. Surface Water (Not Applicable)

Since during most times the Warm Spring Creek is dry and there will be no discharge of waste from the facility to the dry creek, receiving water monitoring is not applicable. In the event of a 25-year, 24-hour storm, waste discharge to surface water from overflow is allowed and may impact the beneficial uses of Warm Spring Creek surface water in the Santa Margarita River Watershed. Inasmuch the Basin Plan describes that the water quality objectives shall not be exceeded more than 10% of the time during any one year period, receiving water monitoring is not needed unless a catastrophic or chronic storm event last more than 36 days.

2. Groundwater

Without adequate NMP and BMPs, groundwater quality could be impacted from waste discharges from CAFO operation including groundwater percolation from waste storage ponds and land application. Attachment E, Monitoring and Reporting Program, establishes groundwater limitations and monitoring requirements.

B. Other Monitoring Requirements (IF APPLICABLE)

40 CFR 122.42(e)(4) establishes annual reporting requirements for CAFOs regarding current animal counts, manure handling, the land application of manure, wastewater irrigation, and the NMP. These monitoring requirements have been established in the Monitoring and Reporting Program in Attachment E of this Order.

40 CFR 122.42 (e)(3) establishes requirements relating to the transfer of manure or process wastewater to other persons. The Discharger must retain records of the date, recipient name and address, and the approximate amount of manure, or process wastewater transferred to another person. These monitoring requirements have been established in Section VI.1. Nutrient Management Plan, of this Order.

40 CFR 412.37 (a)(1) establishes requirements for visual inspections of the CAFO production area. These monitoring requirements have been established in the Monitoring and Reporting Program in Attachment E of this Order.

VII. RATIONALE FOR PROVISIONS

A. Special Provisions

1. Nutrient Management Plan (NMP)

The EPA 2003 CAFO rule [40 CFR 122.42(e)] requires that NPDES permits for all CAFO must include a requirement for the permittee to develop and implement an NMP to achieve effluent limitations and standards. At a minimum, the Nutrient Management Plan (NMP) must include best management practices and procedures necessary to implement applicable effluent limitations and standards. The NMP must, to the extent applicable, include the minimum elements established at 40 CFR 122.42(e)(1)(i)-(ix):

- i. Ensure adequate storage of manure, litter, and process wastewater, including procedures to ensure proper operation and maintenance of the storage facilities.
- ii. Ensure proper management of mortalities (*i.e.*, dead animals) to ensure that they are not disposed of in a liquid manure, storm water, or process wastewater storage or treatment system that is not specifically designed to treat animal mortalities.
- iii. Ensure that clean water is diverted, as appropriate, from the production area.
- iv. Prevent direct contact of confined animals with waters of the United States.
- v. Ensure that chemicals and other contaminants handled on-site are not disposed of in any manure, litter, process wastewater, or storm water storage or treatment system unless specifically designed to treat such chemicals and other contaminants.
- vi. Identify appropriate site specific conservation practices to be implemented, including as appropriate buffers or equivalent practices, to control runoff of pollutants to waters of the United States.
- vii. Identify protocols for appropriate testing of manure, litter, process wastewater, and soil in accordance with 40 CFR 412.4 (c).
- viii. Establish protocols to land apply manure, litter or process wastewater in accordance with site specific nutrient management practices that ensure appropriate agricultural utilization of the nutrients in the manure, litter or process wastewater as specified in 40 CFR 412.4 (c). The established protocols to handle, store, and apply manure or process wastewater shall at a minimum, be as stringent as the protocols specified in the NRCS's, "Conservation Practice Standard, Nutrient Management, Code 590."

- ix. Identify specific records that will be maintained to document the implementation and management of the minimum elements described in paragraphs 3.a through 3.h of this section.

2. Facility Management

The Discharger shall, at all times, properly operate and maintain all facilities and systems of waste disposal (and related appurtenances) which are installed or used by the Discharger to achieve compliance with the conditions of this Order. Proper operations and maintenance include the routine inspection, maintenance, and repair of drainage channels, culverts, ponds, irrigation equipment and related wastewater or runoff collection structures or equipment to ensure that the proper capacity is maintained.

3. Flood Protection

All waste treatment, containment and disposal facilities shall be protected from inundation or washout by overflow from any stream channel during 100-year peak stream flow.

4. Re-Opener Provisions

- a. This Order may be re-opened to include effluent limitations for toxic constituents determined to be present in significant amounts in the discharge by the Regional Board.
- b. This Order may be re-opened and modified, to incorporate in accordance with the provisions set forth in 40 CFR Parts 122 and 124, to include requirements for the implementation of the watershed management approach.
- c. This Order may be re-opened and modified, in accordance with the provisions set forth in 40 CFR Parts 122 and 124, to include new minimum levels.
- d. This Order may be re-opened and modified to revise effluent limitations as a result of future Basin Plan Amendments, such as an update of an objective for the ground water in the Murrieta Hydrologic Area of the Santa Margarita Hydrologic Unit.
- e. This Order may be re-opened upon submission by the Discharger of adequate information, as determined by the Regional Board, to provide for dilution credits or a mixing zone, as may be appropriate.
- f. This Order may be re-opened and modified to revise the toxicity language once that language becomes standardized.
- g. This Order may also be re-opened and modified, revoked, and reissued or terminated in accordance with the provisions of 40 CFR sections 122.44, 122.62 to 122.64, 125.62, and 125.64. Causes for taking such actions include, but are not limited to, failure to comply with any condition of this Order and permit, and endangerment to human health or the environment resulting from the permitted activity.

5. Special Studies and Additional Monitoring Requirements

Core monitoring may include intake monitoring, effluent monitoring, receiving water monitoring, and groundwater monitoring. This Order includes core monitoring for influent and effluent. In addition to core monitoring requirements, the Discharger may be required to conduct the following monitoring requirements:

a. Regional Watershed Monitoring

The Discharger shall participate and coordinate with state and local agencies and other dischargers in the San Diego Region in development and implementation of a regional monitoring program as directed by the Regional Board. The intent of a regional monitoring program is to maximize the efforts of all monitoring partners using a more cost-effective monitoring design and to best utilize the pooled resources of the region. During a coordinated ocean sampling effort, the Discharger's monitoring program effort may be expanded to provide a regional assessment of the impact of discharges to the receiving water.

b. Special Studies

Special studies are intended to be short-term and designed to address specific research or management issues that are not addressed by the routine core-monitoring program. The Discharger shall implement special studies as directed by this Regional Board.

B. Standard Provisions

Federal Standard Provisions, which in accordance with 40 CFR 122.41 and 122.42, apply to all NPDES discharges and must be included in every NPDES permit, are provided in Attachment D to the Order. Regional Board specific Standard Provisions are contained in Section VI.A.2. of the Order.

VIII. PUBLIC PARTICIPATION

The California Regional Water Quality Control Board, San Diego Region (Regional Board) is considering the issuance of waste discharge requirements (WDRs) that will serve as a National Pollutant Discharge Elimination System (NPDES) permit for the Stiefel Dairy. As an initial step in the WDR process, the Regional Board staff has developed tentative WDRs. The Regional Board encourages public participation in the WDR adoption process.

A. Notification of Interested Parties

The Regional Board has notified the permittee and interested agencies and persons of its intent to prescribe waste discharge requirements for the discharge and has provided them with an opportunity to submit their written comments and recommendations. Notification was provided through the Press Enterprise on xxx, 2006, and by letter mailed to the interested parties on xxx, 2006.

B. Written Comments

Interested persons are invited to submit written comments upon these draft waste discharge requirements. Comments should be submitted either in person or by mail, during business hours, to:

John H Robertus, Executive Officer
Attn: Northern Core Regulatory Unit
Regional Water Quality Control Board, San Diego Region
9174 Sky Park Court, Suite 100
San Diego, California 92123

To ensure that the Regional Board has the opportunity to fully study and consider written material, comments regarding Order No. R9-2007-0009 should be received in the Regional Board's office no later than 5:00 p.m. on November 29, 2006. Written material submitted after 5:00 p.m. on November 29, 2006 will not be provided to the Regional Board members and will not be considered by the Regional Board. Oral comments will be received at the hearing on December 13, 2006.

C. Public Hearing

In accordance with 40 CFR 124.10, the Regional Board must issue a public notice whenever NPDES permits have been prepared, and that the tentative permits will be brought before the Regional Board at a public hearing. The public notice has been published in the Press Enterprise no less than 30 days prior to the scheduled public hearing. Order No. R9-2005-0095, will be considered by the Regional Board at a public hearing beginning at 9:00 a.m. on January 24, 2007. The location of this meeting is as follows:

Date: **January 24, 2007**
Time: **9:00 a.m.**
Location: **Regional Water Quality Control Board
Regional Board Meeting Room
9174 Sky Park Court, Suite 100
San Diego, California 92123**

Interested persons are invited to attend. At the public hearing, the Regional Water Board will hear testimony, if any, pertinent to the discharge, WDR, and permit. Oral testimony will be heard; however, for accuracy of the record, important testimony should be in writing.

Please be aware that dates and venues may change. Our web address is <http://www.waterboards.ca.gov/sandiego> where you can access the current agenda for changes in dates and locations.

D. Waste Discharge Requirements Petitions

Any aggrieved person may petition the State Water Resources Control Board to review the decision of the Regional Board regarding the final WDRs. The petition must be submitted within 30 days of the Regional Board's action to the following address:

State Water Resources Control Board
Office of Chief Counsel
P.O. Box 100, 1001 I Street
Sacramento, CA 95812

E. Information and Copying

The Report of Waste Discharge (RWD), related documents, tentative effluent limitations and special provisions, comments received, and other information are on file and may be inspected at the address above at any time between 8:30 a.m. and 4:45 p.m., Monday through Friday. Copying of documents may be arranged through the Regional Water Board by calling 858-467-2952

An electronic copy of the Fact Sheet and Order can be accessed on the Regional Board website: <http://www.waterboards.ca.gov/sandiego/>.

F. Register of Interested Persons

Any person interested in being placed on the mailing list for information regarding the WDR and NPDES permit should contact the Regional Board, reference this facility, and provide a name, address, and phone number.

G. Additional Information

Requests for additional information or questions regarding this Order should be directed to Mr. Charles Cheng at (858) 627-3930 or ccheng@waterboards.ca.gov.