



California Sportfishing Protection Alliance

"An Advocate for Fisheries, Habitat and Water Quality"

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19 May 2007

Dr. Karl Longley, Chairman
Ms. Pamela Creedon, Executive Officer
Mr. Kenneth Landau, Assistant Executive Officer
Mr. Dave Carlson, Env. Program Manager, NPDES
Mr. Bert VanVorhis, Supervising Engineer
Mr. Dale Harvey, Sr. WRC Engineer
Regional Water Quality Control Board
Central Valley Region
11020 Sun Center Drive, Suite 200
Rancho Cordova, CA 95670-6144

VIA: Electronic Submission
Hardcopy if Requested

RE: Waste Discharge Requirements (NPDES No. CA0082082) for California Dairies, Inc., Los Banos Foods, Inc., Merced County

Dear Messrs. Longley, Landau, Carlson, VanVorhis, Harvey and Ms. Creedon:

The California Sportfishing Protection Alliance and Watershed Enforcers (CSPA) has reviewed the Central Valley Regional Water Quality Control Board's (Regional Board) tentative NPDES permit (Order or Permit) for California Dairies, Inc., Los Banos Foods, Inc. (Discharger) and submits the following comments.

CSPA requests status as a designated party for this proceeding. CSPA is a 501(c)(3) public benefit conservation and research organization established in 1983 for the purpose of conserving, restoring, and enhancing the state's water quality and fishery resources and their aquatic ecosystems and associated riparian habitats. CSPA has actively promoted the protection of water quality and fisheries throughout California before state and federal agencies, the State Legislature and Congress and regularly participates in administrative and judicial proceedings on behalf of its members to protect, enhance, and restore California's degraded surface and ground waters and associated fisheries. CSPA members reside, boat, fish and recreate in and along waterways throughout the Central Valley, including Merced County.

- 1. The proposed Permit Interim Limitations for chromium VI and copper are extraordinary high and hopefully represent a typographical error or are unacceptable in allowing toxic discharges in violation of the Basin Plan narrative toxicity objective.**

The proposed Permit Interim Limitations for chromium VI and copper are 50 mg/l and 466.5 mg/l, respectively. For copper this level is approximately 46,000 times the

acute toxicity level and hopefully both limitations are typographical errors and the permit writer intended to make the units ug/l, a thousand times lower.

2. The proposed Permit Interim Limitations for chromium VI and copper which exceed toxic levels are unnecessary and are not protective of the beneficial uses of the receiving stream and should be eliminated in accordance with Federal Regulations 40 CFR 122.41(c).

Regardless of whether the interim limitations for chromium VI and copper are ug/l or mg/l the concentrations of 50 and 466.5, respectively, exceed the acute toxicity criteria of 16 ug/l and 24 ug/l, respectively. The interim limitations will cause toxicity to aquatic organisms according to EPA's ambient criteria for the protection of freshwater aquatic life, which is the basis for the proposed Effluent Limitations in the permit.

The wastewater discharge is non-contact cooling water from a milk processing facility. Chromium and copper are likely additives to the cooling towers for corrosion and algae growth control. The use of these chemicals can be eliminated. There is no need for interim toxic limitations.

Federal Regulations 40 CFR 122.41(c) states that: "It shall not be a defense for a permittee in an enforcement action that it would have been necessary to halt or reduce the permitted activity in order to maintain compliance with the conditions of this permit. The permitted discharge is not a domestic wastewater treatment plant where service is critical. If interim limitations are not granted to this discharger, an accompanying enforcement order should be issued; compliance with the compliance can be immediately achieved in accordance with 40 CFR 122.41(c). The Discharger can comply immediately, without the need for toxic discharges to continue, by eliminating the use of the toxic chemicals or by ceasing the discharge.

3. The proposed Permit fails to contain mass based Effluent Limitations as required by Federal Regulations and technical advise from EPA.

Section 5.7.1 of U.S. EPA's *Technical Support Document for Water Quality Based Toxics Control* (TSD, EPA/505/2-90-001) states with regard to mass-based Effluent Limits:

"Mass-based effluent limits are required by NPDES regulations at 40 CFR 122.45(f). The regulation requires that all pollutants limited in NPDES permits have limits, standards, or prohibitions expressed in terms of mass with three exceptions, including one for pollutants that cannot be expressed appropriately by mass. Examples of such pollutants are pH, temperature, radiation, and whole effluent toxicity. Mass limitations in terms of pounds per day or kilograms per day can be calculated for all chemical-specific toxics such as chlorine or chromium. Mass-based limits should be calculated using concentration limits at critical flows. For example, a permit limit of 10 mg/l of cadmium discharged at an average

rate of 1 million gallons per day also would contain a limit of 38 kilograms/day of cadmium.

Mass based limits are particularly important for control of bioconcentratable pollutants. Concentration based limits will not adequately control discharges of these pollutants if the effluent concentrations are below detection levels. For these pollutants, controlling mass loadings to the receiving water is critical for preventing adverse environmental impacts.

However, mass-based effluent limits alone may not assure attainment of water quality standards in waters with low dilution. In these waters, the quantity of effluent discharged has a strong effect on the instream dilution and therefore upon the RWC. At the extreme case of a stream that is 100 percent effluent, it is the effluent concentration rather than the mass discharge that dictates the instream concentration. Therefore, EPA recommends that permit limits on both mass and concentration be specified for effluents discharging into waters with less than 100 fold dilution to ensure attainment of water quality standards.”

Federal Regulations, 40 CFR 122.45 (f), states the following with regard to mass limitations:

- “(1) all pollutants limited in permits shall have limitations, standards, or prohibitions expressed in terms of mass except:
 - (i) For pH, temperature, radiation or other pollutants which cannot be expressed by mass;
 - (ii) When applicable standards and limitations are expressed in terms of other units of measurement; or
 - (iii) If in establishing permit limitations on a case-by-case basis under 125.3, limitations expressed in terms of mass are infeasible because the mass of the pollutant discharged cannot be related to a measure of operation (for example, discharges of TSS from certain mining operations), and permit conditions ensure that dilution will not be used as a substitute for treatment.

- (2) Pollutants limited in terms of mass additionally may be limited in terms of other units of measurement, and the permit shall require the permittee to comply with both limitations.”

In addition to the above citations, on June 26th 2006 U.S. EPA, Mr. Douglas Eberhardt, Chief of the CWA Standards and Permits Office, sent a letter to Dave Carlson at the Central Valley Regional Water Quality Control Board strongly recommending that NPDES permit effluent limitations be expressed in terms of mass as well as concentration.

Mass based Effluent Limitations are critically important to this industrial facility which can control the mass of added chemicals to the cooling tower wastestream and must be added to the permit.

4. The proposed Permit contains an Effluent Limitation for electrical conductivity (EC) which has no technical or regulatory basis and is not protective of the beneficial uses of the receiving stream contrary to the Basin Plan and Federal Regulations 40 CFR 122.44.

Federal Regulations, 40 CFR 122.44 (d)(i), requires that; “Limitations must control all pollutants or pollutant parameters (either conventional, nonconventional, or toxic pollutants) which the Director determines are or may be discharged at a level which will cause, have the reasonable potential to cause, or contribute to an excursion above any State water quality standard, including State narrative criteria for water quality.” The Water Quality Control Plan (Basin Plan) for the Central Valley Region, Water Quality Objectives, page III-3.00, contains a Chemical Constituents Objective that includes Title 22 Drinking Water Maximum Contaminant Levels (MCLs) by reference. The Title 22 MCLs for EC are 900 $\mu\text{mhos/cm}$ (recommended level), 1,600 $\mu\text{mhos/cm}$ (upper level) and 2,200 $\mu\text{mhos/cm}$ (short term maximum).

The Basin Plan states, on Page III-3.00 Chemical Constituents, that “Waters shall not contain constituents in concentrations that adversely affect beneficial uses.” The Basin Plan’s “Policy for Application of Water Quality Objectives” provides that in implementing narrative water quality objectives, the Regional Board will consider numerical criteria and guidelines developed by other agencies and organizations. This application of the Basin Plan is consistent with Federal Regulations, 40CFR 122.44(d).

For EC, *Ayers R.S. and D.W. Westcott, Water Quality for Agriculture, Food and Agriculture Organization of the United Nations – Irrigation and Drainage Paper No. 29, Rev. 1, Rome (1985)*, levels above 700 $\mu\text{mhos/cm}$ will reduce crop yield for sensitive plants. The University of California, Davis Campus, Agricultural Extension Service, published a paper, dated 7 January 1974, stating that there will not be problems to crops associated with salt if the EC remains below 750 $\mu\text{mhos/cm}$.

The proposed Permit contains an Effluent Limitation for EC of 1074 $\mu\text{mhos/cm}$. Clearly the discharge of 1074 $\mu\text{mhos/cm}$ exceeds the MCLs and agricultural water quality goal for EC. The proposed Order fails to establish an effluent limitation for EC that are protective of the Chemical Constituents water quality objective. The wastewater discharge increases concentrations of EC to unacceptable concentrations adversely affecting the agricultural beneficial use. The wastewater discharge not only presents a reasonable potential, but also actually causes, violation of the Chemical Constituent Water Quality Objective in the Basin Plan. The available literature regarding safe levels of EC for irrigated agriculture mandate that an Effluent Limitation for EC is necessary to protect the beneficial use of the receiving stream in accordance with the Basin Plan and Federal Regulations. The Discharger utilizes both microfiltration and reverse osmosis as

part of the non-wastewater process but has failed to utilize these same technologies to protect water quality. The Fact Sheet cites the Lower San Joaquin Salt and Boron TMDL as the basis for allowing the Discharger to discharge whatever concentration they wish since NPDES point discharges are defined as a “low priority”. We suggest that the definition of low priority NPDES point discharges is applicable to municipal discharges with less control of the salt concentrations in their influent wastestream, not industrial dischargers where control and compliance is immediately achievable. This industrial discharger has control of the concentrations of EC in the discharge by limiting recirculation of cooling tower flows which increases salinity and by controlling chemical additives which also increases EC concentrations. Failure to establish effluent limitations for EC that are protective of the Chemical Constituents and irrigated agriculture water quality objective blatantly violates the law.

5. The proposed Permit does not contain an Effluent Limitation for zinc in violation of Federal Regulations 40 CFR 122.44 and California Water Code, Section 13377

The maximum measured concentration for zinc in the discharge was 1030 ug/l. The CTR water quality standard for zinc is 200 ug/l. The discharge does not present a reasonable potential to exceed a water quality standard but has exceeded such. The discharge is a cooling tower. Zinc commonly is used in cooling tower chemical additives and is also present in galvanized metals. Regional Board staff’s ignorance of the use and presence of chemicals and metals in cooling towers by calling the detection of zinc erroneous is frightening and totally without technical support. The California Water Code (CWC), Section 13377 states in part that: “...the state board or the regional boards shall...issue waste discharge requirements...which apply and ensure compliance with ...water quality control plans, or for the protection of beneficial uses...” Section 122.44(d) of 40 CFR requires that permits include water quality-based effluent limitations (WQBELs) to attain and maintain applicable numeric and narrative water quality criteria to protect the beneficial uses of the receiving water. Where numeric water quality objectives have not been established, 40 CFR §122.44(d) specifies that WQBELs may be established using USEPA criteria guidance under CWA section 304(a), proposed State criteria or a State policy interpreting narrative criteria supplemented with other relevant information, or an indicator parameter. Failure to include an effluent limitation for zinc in the proposed permit violates 40 CFR 122.44 and CWC 13377.

6. The proposed Permit contains an inadequate antidegradation analysis that does not comply with the requirements of Section 101(a) of the Clean Water Act, Federal Regulations 40 CFR § 131.12 and State Board’s Resolution 68-16.

The antidegradation analysis in the proposed Permit is not simply deficient, it is literally nonexistent. The brief discussion of antidegradation requirements, in the Findings and Fact Sheet, consist only of skeletal, unsupported, undocumented conclusory statements totally lacking in factual analysis.

Section 101(a) of the Clean Water Act, the basis for the antidegradation policy, states that the objective of the Act is to “restore and maintain the chemical, biological and physical integrity of the nation’s waters.” Section 303(d)(4) of the Act carries this further, referring explicitly to the need for states to satisfy the antidegradation regulations at 40 CFR § 131.12 before taking action to lower water quality. These regulations describe the federal antidegradation policy and dictate that states must adopt both a policy at least as stringent as the federal policy as well as implementing procedures (40 CFR § 131.12(a)).

California’s antidegradation policy is composed of both the federal antidegradation policy and the State Board’s Resolution 68-16. (State Water Resources Control Board, Water Quality Order 86-17, p. 20 (1986) (“Order 86-17”); Memorandum from William Attwater, SWRCB to Regional Board Executive Officers, “federal Antidegradation Policy,” pp. 2, 18 (Oct. 7, 1987) (“State Antidegradation Guidance”).) As part of the state policy for water quality control, the antidegradation policy is binding on all of the Regional Boards. (Water Quality Order 86-17, pp. 17-18.) Implementation of the state’s antidegradation policy is guided by the State Antidegradation Guidance, SWRCB Administrative Procedures Update 90-004, 2 July 1990 (“APU 90-004”) and USEPA Region IX, “Guidance on Implementing the Antidegradation Provisions of 40 CFR 131.12” (3 June 1987) (“Region IX Guidance”), as well as Water Quality Order 86-17.

The Regional Board must apply the antidegradation policy whenever it takes an action that will lower water quality. (State Antidegradation Guidance, pp. 3, 5, 18, and Region IX Guidance, p. 1.) Application of the policy does not depend on whether the action will actually impair beneficial uses. (State Antidegradation Guidance, p. 6. Actions that trigger use of the antidegradation policy include issuance, **re-issuance, and modification of NPDES** and Section 404 permits and waste discharge requirements, waiver of waste discharge requirements, issuance of variances, relocation of discharges, issuance of cleanup and abatement orders, increases in discharges due to industrial production and/or municipal growth and/other sources, exceptions from otherwise applicable water quality objectives, etc. (State Antidegradation Guidance, pp. 7-10, Region IX Guidance, pp. 2-3.) Both the state and federal policies apply to point and nonpoint source pollution. (State Antidegradation Guidance p. 6, Region IX Guidance, p. 4.)

As a part of the Antidegradation Policy, Dischargers are required to provide BPTC. The Antidegradation Policy, State Water Resources Control Board Resolution No. 68-16, states that: “Any activity which produces or may produce a waste or increased volume or concentration of waste and which discharges or proposes to discharge to existing high quality waters will be required to meet waste discharge requirements which will result in the best practicable treatment or control of the discharge necessary to assure that (a) a pollution or nuisance will not occur and (b) the highest water quality consistent with the maximum benefit to the people of the State will be maintained.” The Antidegradation Policy has been incorporated into the Basin Plan. Waste Discharge Requirements must require that the treatments systems provide BPTC.

The ultimate goal of the Federal Clean Water Act as expressed in Section 101 is the elimination of the discharge of pollutants into navigable waters by 1985. The Act throughout, places an emphasis on the control and reduction of the discharge of pollutants by point sources as interim goals. Technology based effluent limitations are required by Section 301 of the Act for all point sources. A standard of “best available technology” (BPT) is required by 1977, and a more stringent standard of “best available technology” (BAT) is required by 1983 for industrial point sources. For publicly owned treatment works (POTWs), secondary treatment is required by 1977 and “best practicable treatment” (BPT) by 1983. Best practicable treatment and control (BPTC) is also required by the State and Regional Board’s Antidegradation Policy (Resolution 68-16).

The antidegradation analysis has not addressed BPTC for the wastewater facility that cannot comply with waste discharge requirements and does not address chromium, copper, zinc or EC. The antidegradation analysis has not addressed BAT. The antidegradation analysis has not addressed the lack of need for interim effluent limitations. The antidegradation analysis has not addressed controllable chemical additives. The antidegradation analysis has not addressed Federal Regulations 40 CFR 122.41(c) and the option to halt or reduce the permitted activity.

7. **The proposed Permit is based on an incomplete Report of Waste Discharge (RWD) and in accordance with Federal Regulations 40 CFR 122.21(e) and (h) and 124.3 (a)(2) the State’s Policy for Implementation of Toxics standards for Inland Surface Waters, Enclosed Bays, and Estuaries of California (SIP) and California Water Code Section 13377 the permit should not be issued until the discharge is fully characterized and a protective permit can be written.**

There is no information in the proposed Permit to indicate that the wastewater discharge has been characterized for California Toxics Rule (CTR), National Toxics Rule (NTR), drinking water MCLs and other pollutants which could degrade the beneficial uses of the receiving stream and exceed water quality standards and objectives. The Reasonable Potential Analysis Summary does not contain a complete list of CTR, NTR, drinking water MCLs and other pollutants which would indicate that the Regional Board is basing the proposed Permit on adequate information. For the last several years the Regional Board’s NPDES permits have contained a spreadsheet detailing the priority pollutant sampling which has, or has not, been monitored. Absent this spreadsheet, one can only conclude that the required priority pollutant sampling, which is necessary to characterize the discharge, has not been conducted. The absence of data is contrary to precedential Water Quality Order WQO 2004-0013 for the City of Yuba City, “The findings or Fact Sheet should cite the specific data on which it relied in its calculations.”

The SIP required the Regional Board’s to require dischargers to characterize their discharges for priority pollutants. On 10 September 2001, the Regional Board mailed out a California Water Code Section 13267 letter to dischargers requiring a minimum of quarterly sampling for priority pollutants, pesticides, drinking water constituents, and

other pollutants. The Regional Board's 13267 letter cited SIP Section 1.2 as directing the Board to issue the letter requiring sampling sufficient to determine reasonable potential for priority pollutants and to calculate Effluent Limitations. The Regional Board's 13267 letter went beyond requiring sampling for CTR and NTR constituents and required a complete assessment for pesticides, drinking water constituents, temperature, hardness and pH and receiving water flow. There is no indication that any this data was ever received or that it was utilized in preparing the proposed permit.

SIP Section 1.3 requires that the Regional Board conduct a reasonable potential analysis for each priority pollutant to determine if a water quality-based Effluent Limitation is required in the permit. Absent the data, the Regional Board cannot possibly comply with SIP requirement of Section 1.3. There is no analysis or discussion in the proposed Permit which indicates the Regional Board complied with the requirements of SIP Section 1.3. Failure to include this information, if received, would be in violation of Federal Regulation 40 CFR 124.8 (A)(2) which requires Fact Sheets contain an assessment of the wastes being discharged.

Federal Regulation, 40 CFR 122.21(e) states in part that: "The Director shall not issue a permit before receiving a complete application for a permit except for NPDES general permits. In accordance with 40 CFR 122.21 (e) and (h) and 124.3 (a)(2) the Regional Board shall not adopt the proposed permit without first a complete application, in this case for industrial landfill, for which the permit application requirements are extensive. An application for a permit is complete when the Director receives an application form and any supplemental information which are completed to his or her satisfaction. The completeness of any application for a permit shall be judged independently of the status of any other permit application or permit for the same facility or activity."

State Report of Waste Discharge form 200 is required as a part of a complete Report of Waste Discharge. Form 200, part VI states that: "To be approved, your application must include a complete characterization of the discharge." The Federal Report of Waste Discharge forms also require a significant characterization of a wastewater discharge. Federal Application Form 2A, which is required for completion of a Report of Waste Discharge for municipalities, Section B.6, requires that Dischargers whose flow is greater than 0.1 mgd, must submit sampling data for ammonia, chlorine residual, dissolved oxygen, total kjeldahl nitrogen, nitrate plus nitrite nitrogen, oil an grease, phosphorus and TDS. Federal Application Form 2A, Section D, requires that Discharger's whose flow is greater than 1.0 mgd, conduct priority pollutant sampling. Federal Regulation, 40 CFR 122.21(g)(7) requires for existing manufacturing, commercial or mining facilities that a significant list of priority pollutants be sampled to characterize the effluent discharge. This has apparently not been completed.

As the proposed Permit states; the California Toxics Rule (CTR)(40 CFR 131, Water Quality Standards) contains water quality standards applicable to this wastewater discharge. The final due date for compliance with CTR water quality standards for all wastewater dischargers in California is May 2010. The State's *Policy for Implementation*

of Toxics standards for Inland Surface Waters, Enclosed Bays, and Estuaries of California (SIP), Section 1.2, requires wastewater dischargers to provide all data and other information requested by the Regional Board before the issuance, reissuance, or modification of a permit to the extent feasible.

Federal Regulation, 40 CFR 122.21(e) states in part that: “The Director shall not issue a permit before receiving a complete application for a permit except for NPDES general permits.

California Water Code, section 13377, requires that: “Notwithstanding any other provision of this division, the state board and the regional boards shall, as required or authorized by the Federal Water Pollution Control Act, as amended, issue waste discharge and dredged or fill material permits which apply and ensure compliance with all applicable provisions of the act and acts amendatory thereof or supplementary, thereto, together with any more stringent effluent standards or limitations necessary to implement water quality control plans, or for the protection of beneficial uses, or to prevent nuisance.”

The application for permit renewal is incomplete, or the information utilized to write the proposed Permit is incomplete, and in accordance with the CWC, Federal Regulations and the SIP the proposed Permit should not be adopted.

Thank you for considering these comments. If you have questions or require clarification, please don't hesitate to contact us.

Sincerely,

A handwritten signature in black ink, appearing to read "Bill Jennings". The signature is fluid and cursive, with the first name "Bill" and last name "Jennings" clearly distinguishable.

Bill Jennings, Executive Director
California Sportfishing Protection Alliance