CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD
LAHONTAN REGION

CLEANUP AND ABATEMENT ORDER NO. R6V-2008-0034
REQUIRING PAUL RYKEN, THE ESTATE OF NICK VAN VLIET, FLAMELING DAIRY, INCORPORATED, K&H VAN VLIET CHILDREN LLC, AND THE PACIFIC GAS AND ELECTRIC COMPANY TO CLEANUP OR ABATE THE EFFECTS OF CONTAMINANTS TO GROUNDWATERS OF THE MOJAVE RIVER HYDROLOGIC UNIT, DESERT VIEW DAIRY, HINKLEY, WDID NO. 6B36040900

SAN BERNARDINO COUNTY

The California Regional Water Quality Control Board, Lahontan Region (Water Board), finds:

FINDINGS

1. The Desert View Dairy (DVD) is located at 37501 Mountain View Road in Hinkley. The DVD is situated east of this unincorporated community in San Bernardino County, in the Harper Valley Subarea of the Mojave Hydrologic Unit. As described below, the Flameling Dairy operated at this location. Hereinafter, land upon which the Desert View Dairy is located and the Flameling Dairy was located will be referred to as the "Property" and the operations of the DVD and Flameling Dairy as "dairy operations."

2. From 1981 to 1992, the Property was owned by FD Farms and from 1981 to 1986 the dairy operations were controlled by Flameling Dairy, Inc. From 1986 to approximately 1992, no dairy operations were conducted at the Property.

3. The K&H Van Vliet Children LLC and various Van Vliet trusts owned the property from 1992 to 2002. Mr. Paul Ryken and Mr. Nick Van Vliet have conducted dairy operations on the Property since approximately 1992 under a general partnership known as the Desert View Dairy. Mr. Van Vliet is recently deceased. The Water Board understands that the estate of Mr. Van Vliet remains a partner in the dairy operation.

4. The Pacific Gas and Electric Company (PG&E) bought the property in 2002 and leases it to the Desert View Dairy partnership to operate as a dairy.

5. Mr. Ryken, the estate of Mr. Van Vliet, Flameling Dairy, Inc., the K&H Van Vliet Children LLC and PG&E are hereinafter referred to as "Dischargers." Additional dischargers may be named as additional information becomes available.

6. The Property consists of approximately 180 acres that include a dairy operation, two residences, crop fields, and a manure/wastewater storage pond. The current
dairy operation includes approximately 1,500 dairy cows on the Property. In a July 30, 2008 letter report from Conestoga-Rovers and Associates on behalf of Mr. Ryken, it was estimated that approximately 43,000 gallons of wastewater containing nitrogen and total dissolved solids is generated each day by dairy operations. Liquid wastewater is stored in a storm water pond that was reportedly constructed with a clay liner in 1981, when Flameling Dairy, Inc. operated the dairy. The integrity of the clay liner is unknown. The wastewater is applied onto fields in the northern portion of the property. These discharges contributed to increased nitrate and other constituents in groundwater beneath and in the downgradient groundwater flow direction of the Property due to the nitrate and salts present in the wastewater.

7. From approximately 1992 to 1996, the Desert View Dairy partnership discharged manure solid waste to areas in the northern portion of the property. Between 1996 and 2001, manure was both spread on the site and exported to surrounding fields on other properties. Since 2002, manure has been trucked to an off-site facility for processing. No records were kept of the volume of manure applied at the Property each year when land disposal occurred. However, records from 2004 to 2007 show that the dairy operation produces an annual average of 5,314 tons of solid waste. These past discharges may have contributed to increased nitrate and other constituents in groundwater beneath and downgradient of the Property due to the nitrate and salts present in the manure.

8. As the current dairy operators, Mr. Paul Ryken and the estate of Mr. Nick Van Vliet, as the Desert View Dairy general partnership, are subject to this Order because they know or should know of the discharge of waste and have the ability to control it. As the former dairy operator, Flameling Dairy, Inc. are subject to this Order because it knew or should have known of the discharge of waste and had the ability to control it. As former owner of the property, the K&H Van Vliet Children LLC knew or should have known of the discharge of waste and had the ability to control it. Since it acquired the Property in 2002, PG&E knows or should know of the discharge of waste and has the ability to control it.

9. On January 31, 2008, Water Board staff collected a water sample from the domestic well at the residence located at 22858 Alcudia Road in Hinkley, at the owner's request. The well is situated approximately 200 feet north of the Property. Six measured constituents in the sample exceed either the primary or secondary drinking water standards (Maximum Contaminant Levels or MCLs) or a USEPA Health Advisory level. The detected concentrations for the six constituents are shown here:

<table>
<thead>
<tr>
<th>Constituent</th>
<th>Concentration</th>
<th>Standard</th>
</tr>
</thead>
<tbody>
<tr>
<td>Nitrate as NO₃</td>
<td>81 mg/L</td>
<td>45 mg/L</td>
</tr>
<tr>
<td>Chloride</td>
<td>1200 mg/L</td>
<td>250-600 mg/L</td>
</tr>
</tbody>
</table>
10. On May 9, 2008, the Water Board ordered Mr. Ryken and PG&E to submit technical reports to investigate pollution in groundwater beneath and adjacent to the Property. The order was based on prior groundwater samples collected at the Property showing concentrations of nitrates (as NO₃) up to 81 mg/L and total dissolved solids up to 3120 mg/L, which exceed MCLs. The order, issued pursuant to section 13267 of the Water Code, required the submittal of: a groundwater investigation workplan; description of all waste disposal actions for the past 15 years, and; a technical report describing the results of a groundwater investigation to evaluate the extent of pollution from dairy operations on the Property.

11. On August 11, 2008, the Water Board received a citizen letter complaining about high levels of nitrates detected in her residential well, located at 22726 Thompson Road in Hinkley. The residence is situated about 2,500 feet north of the Property, in the estimated downgradient groundwater flow direction from the Property. The letter included a copy of laboratory results showing that 96 mg/L nitrate (as NO₃) was detected in a water sample. The letter expressed concern about the source of nitrates, potential health affects, and actions that the Water Board is taking to address the problem. A reply letter by Water Board staff was issued on September 15, 2008.

12. As of October 31, Mr. Ryken has complied with the three directives in the Water Code section 13267 order issued on May 9, 2008. The Water Board received a workplan proposing a groundwater investigation at and in the vicinity of the Property and a letter report describing waste management practices during the past 15 years. The workplan states that based on historical database review, the general background concentration of nitrate as nitrogen in groundwater ranges from 1 to 15 mg/L (nitrate as NO₃ from 4.5 to 67.5 mg/L) on properties surrounding the Property. Mr. Ryken conducted the groundwater investigation, with off-site domestic well sampling in early-October 2008. The technical report describing the investigation results was submitted to the Water Board on October 31, 2008.

13. The 1995 Water Quality Control Plan for the Lahontan Region (Basin Plan) established water quality objectives (WQOs) for the protection of beneficial uses. WQOs include the following primary MCL established by the California Department of Public Health as a safe level to protect public drinking water supplies:
Nitrates as $\text{NO}_3$ $45 \text{ mg/L}$

The following secondary MCLs are established by the California Department of Public Health as consumer acceptance contaminant levels:

<table>
<thead>
<tr>
<th>Constituent</th>
<th>Recommended</th>
<th>Upper</th>
<th>Short Term</th>
</tr>
</thead>
<tbody>
<tr>
<td>Chloride (mg/L)</td>
<td>250</td>
<td>500</td>
<td>600</td>
</tr>
<tr>
<td>Sulfate as $\text{SO}_4$ (mg/L)</td>
<td>250</td>
<td>500</td>
<td>600</td>
</tr>
<tr>
<td>Total Dissolved Solids (mg/L)</td>
<td>500</td>
<td>1000</td>
<td>1500</td>
</tr>
<tr>
<td>Specific Conductance (EC) ($\mu\text{mhos/cm}$)</td>
<td>900</td>
<td>1600</td>
<td>2200</td>
</tr>
</tbody>
</table>

The following U.S. EPA Health Advisory is established as a secondary drinking water standard for individuals on a 500 mg/day restricted sodium diet:

Sodium $20 \text{ mg/L}$

14. Dairy wastewater and solid manure are defined as wastes pursuant to Water Code section 13050, subdivision (d).

15. The Dischargers caused or allowed or threatened to cause nitrate-containing wastes and other wastes to be discharged to waters of the State underlying the Property.

16. Nitrate-containing wastes and other wastes have impacted groundwater beyond the boundaries of the Property. Water data from wells on the Property and off-site domestic wells as presented in Finding Nos. 9 - 12 indicate that the nitrate plume originating at the Property has migrated to at least Thompson Road, about 2,500 feet to the north. The lateral and vertical extent of the plume is not fully known but is under investigation. The required investigation report is the subject of another order of the Water Board.

17. Parcels within one mile to the north of the Property contain approximately 40 private and community domestic drinking supply wells, as indicated in a 2006 well survey report submitted by PG&E. Wastes from the Property either have adversely impacted or threaten to impact supply wells with nitrates and other wastes exceeding the drinking water MCLs.
18. Water Code section 13050, subdivision (l) defines "pollution" as follows:

   ... an alteration of the water quality to a degree that unreasonably affects either beneficial uses or facilities that serve these beneficial uses.

19. Pursuant to Chapter 2 of the Basin Plan, present and potential beneficial uses of groundwater underlying and downgradient of the Property include domestic and municipal water supply, agricultural water supply, industrial water supply, freshwater replenishment, and aquaculture.

20. Because the discharges have caused or contributed to groundwater beneath and downgradient of the Property to exceed the drinking water standard for nitrate as \( \text{NO}_3 \) (45 mg/L), the affected ground water is no longer useable for drinking or domestic supply. This alteration is unreasonable because the aquifer is currently used for drinking water and the portion of the aquifer affected by the discharge is no longer suitable for this beneficial use. The discharges have, therefore, unreasonably affected the water for municipal and domestic supply beneficial use and caused a condition of pollution.

21. Mr. Paul Ryken, the estate of Mr. Nick Van Vliet, and Flameling Dairy, Inc., are primarily liable for complying with this Order. A regional board may make a distinction between primary and secondary liability. (See, e.g., Alcoa et al., State Water Resources Control Board (State Water Board) WQ Order No. 93-09 at p. 12, fn. 8.) This distinction has been made primarily for equitable reasons.

   In this case, Mr. Paul Ryken, the estate of Mr. Nick Van Vliet, and Flameling Dairy, Inc., are primarily liable for compliance with this cleanup order because Mr. Ryken and Mr. Van Vliet, as the Desert View Dairy general partnership, and the Flameling Dairy, Inc., as dairy operators initiated and contributed to the discharge of waste. More specifically, because Mr. Paul Ryken, Mr. Van Vliet and Flameling Dairy, Inc., caused waste to be discharged such that groundwater has been adversely affected by elevated concentrations of nitrate and salts, Mr. Paul Ryken, the estate of Nick Van Vliet, and Flameling Dairy, Inc., are primarily responsible for compliance with this Order.

22. The K&H Van Vliet Children LLC and PG&E are secondarily liable for complying with this Order. The State Water Board has also cited factors that are appropriate for regional boards to consider in determining whether a party should be held secondarily liable. These factors include making a distinction between those parties who were considered responsible parties solely due to their land ownership and whether or not the parties initiated or contributed to the discharge.
In this case, Mr. Ryken, Mr. Van Vliet, and Flameling Dairy, Inc., rather than the K&H Van Vliet Children LLC and PG&E, initiated or contributed to the discharge, and the K&H Van Vliet Children LLC and PG&E are named as responsible parties due to their former or current ownership of the Property.

AUTHORITY – LEGAL REQUIREMENTS

23. Water Code section 13304, subdivision (a) states:

Any person . . . who has caused or permitted, causes or permits, or threatens to cause or permit any waste to be discharged or deposited where it is, or probably will be, discharged to waters of the state and creates, or threatens to create, a condition of pollution or nuisance, shall upon order of the regional board clean up or abate the effects of the waste, or, in the case of threatened pollution or nuisance, take other necessary remedial action, including but not limited to, overseeing cleanup and abatement efforts. A cleanup and abatement order issued by the state board or a regional board may require the provision of, or payment for, uninterrupted replacement water service, which may include wellhead treatment, to each affected public water supplier or private well owner. Upon failure of any person to comply with the cleanup or abatement order, the Attorney General, at the request of the board, shall petition the superior court for that county for the issuance of an injunction requiring the person to comply with the order. In the suit, the court shall have jurisdiction to grant a prohibitory or mandatory injunction, either preliminary or permanent, as the facts may warrant.

24. Pursuant to Water Code section 13304, subdivision (f):

Replacement water provided pursuant to subdivision (a) shall meet all applicable federal, state, and local drinking water standards, and shall have comparable quality to that pumped by the public water system or private well owner prior to the discharge of waste.

25. The conditions described in Findings No. 9 - 12 constitute violations of the Basin Plan. The conditions described in these Findings also identify discharges of wastes where it has been discharged or deposited into waters of the State (groundwater) or probably will be discharged into the waters of the State. The Dischargers are therefore subject to Water Code section 13304.
26. Pursuant to Water Code section 13267, subdivision (b):

In conducting an investigation specified in subdivision (a), the regional board may require that any person who has discharged, discharges, or is suspected of having discharged or discharging, or who proposes to discharge waste within its region, or any citizen or domiciliary, or political agency or entity of this state who has discharged, discharges, or is suspected of having discharged or discharging, or who proposes to discharge, waste outside of its region that could affect the quality of waters within its region shall furnish, under penalty of perjury, technical or monitoring program reports which the regional board requires. The burden, including costs, of these reports shall bear a reasonable relationship to the need for the report and the benefits to be obtained from the reports. In requiring those reports, the regional board shall provide the reports, and shall identify the evidence that supports requiring that person to provide the reports.

27. This Order requires monitoring, workplans and reports pursuant to Water Code section 13267, subdivision (b). The monitoring required by this Order is necessary to evaluate the extent of pollution in groundwater, determine affected well owners, and to protect human health. Workplan and technical reports required in this Order are essential to design a water replacement plan and implementation schedule and to determine compliance with this Order.

28. Pursuant to Water Code section 13304, the Water Board is entitled to, and may seek, reimbursement for all reasonable costs actually incurred by the Water Board to investigate unauthorized discharges of wastes or to oversee cleanup of such waste, abatement of the effect thereof, or other remedial action pursuant to this Order.

29. The issuance of this Order is an enforcement action taken by a regulatory agency and is exempt from the provision of the California Environmental Quality Act (Public Resources Code section 21000 et seq.), pursuant to California Code of Regulations (CCR), title 14, section 15321, subdivision (a)(2). The implementation of this Order is also an action to assure the restoration of the environment and is exempt from the provisions of the California Environmental Quality Act (Public Resources Code, section 21000 et seq.), in accordance with CCR, title 14, sections 15308 and 15330.
ORDERS

IT IS HEREBY ORDERED, pursuant to Water Code sections 13267 and 13304, that Mr. Paul Ryken, the estate of Mr. Nick Van Vliet, and Flameling Dairy, Inc., as primarily responsible for the discharge of waste that has caused or threatens to cause a condition of pollution or nuisance, shall abate the effects of waste discharges at, near, and downgradient of the Property as follows in paragraphs 1 through 9. As secondarily liable for the discharge of waste that has caused or threatens to cause a condition of pollution or nuisance, the K&H Van Vliet Children LLC and PG&E shall abate the effects of waste discharges, at, near, or downgradient of the Property as follows in paragraphs 1 through 9 in the event that Mr. Ryken, the estate of Mr. Van Vliet, and Flameling Dairy, Inc. fail to comply with all or any portion of this Order and the Water Board notifies the K&H Van Vliet Children LLC and PG&E of the failure of Mr. Ryken, the estate of Mr. Van Vliet, and Flameling Dairy, Inc. to comply with this Order.

1. **By November 19, 2008,** supply interim uninterrupted replacement water service (i.e., bottled water or equivalent), to residences or businesses served by private or community domestic wells in which nitrate has been detected at concentrations exceeding 45 mg/L nitrate as NO₃⁻ (10 mg/L nitrate as nitrogen), based on data generated in the most recent sampling event for any domestic well in the Affected Area. The Affected Area is defined as the area that is bounded by Serra Road in the west, Santa Fe Road in the south, Summerset Road in the east and Salinas Road in the north. The Affected Area may be modified as additional information becomes available. Furthermore, the Dischargers shall supply interim uninterrupted replacement water service (i.e., bottled water or equivalent), to any residence or business served by a private or community domestic well within the Affected Area within 48 hours of determining that the domestic well exhibits a nitrate as NO₃⁻ concentration greater than 45 mg/L (10 mg/L nitrate as nitrogen) for the first time.

2. **By November 26, 2008,** provide notification to all parcel owners and occupants in the Affected Area that nitrate as NO₃⁻ concentrations in groundwater may exceed the MCL of 45 mg/L. The Dischargers shall also include notification that all potentially affected wells will need to be sampled on a quarterly basis, beginning December 10, 2008. A copy of the notification must be received by the Water Board.

3. **By December 1, 2008,** submit a technical report to the Water Board listing all residences and businesses that have been provided interim uninterrupted replacement water service. The report must include the method(s) that the Dischargers have implemented to provide interim uninterrupted replacement water service including how this service will be maintained. If a residence or
business should have been provided interim uninterrupted replacement water service based on the requirement in Order No. 1 above and has not been provided interim uninterrupted replacement water service, the technical report must include actions the Dischargers have taken and will continue to take to provide interim uninterrupted replacement water service to the residence or business. If the reason that the Dischargers have failed to provide interim uninterrupted replacement water service is the refusal of the occupants of the residence or business to accept such service, the report must include a statement from the occupants of this refusal. The report must identify all other wells in the Affected Area that are threatened by the discharge and have yet to be sampled.

4. **By December 31, 2008 and quarterly thereafter (by March 31, June 30, September 30, and December 31)**, complete the quarterly sampling of all private and community domestic wells within the Affected Area and submit samples with chain of custody documentation to a California certified laboratory for nitrate analyses. Laboratory analyses must include general minerals and regulated inorganics. Nitrate as NO$_3$ analysis must have a Method Detection Limit of 2 mg/L or less (nitrate as nitrogen Method Detection Limit of 0.4 mg/L or less).

5. **By January 31, 2009, and quarterly thereafter** (April 30, July 31, October 31, and January 31) but no later than 30 days after completing the well sampling required in Order 4 above, submit to the Water Board California-certified laboratory results and other quality assurance/control documentation from the first quarterly sampling event (and subsequent quarterly sampling events) for all potentially affected private and community domestic wells and a list of residences with nitrate as NO$_3$ concentrations exceeding 45 mg/L in their supply water. If the results indicate that other constituents beside nitrate are detected exceeding the MCL, the report must describe those wells affected. The report must state how each parcel owner and occupant were notified of these results within the required 48 hour period if a new detection above the MCL or within 5 days if previously detected at levels above the MCL. The report must contain a map showing the location of all wells that were sampled or attempted to be sampled. If the results of this monitoring identify a well that exhibits a nitrate as NO$_3$ concentration exceeding 45 mg/L (10 mg/L nitrate as nitrogen) for the first time, the Dischargers must notify the Water Board of this information within 48 hours of the Dischargers receiving the monitoring information and state the alternate water supply to be given to the residence or occupants.

6. **By March 20, 2009**, submit a detailed Alternative Water Supply Implementation Workplan for long-term, uninterrupted, replacement water, for domestic and community supply wells with nitrate as NO$_3$ concentrations exceeding 45 mg/L
(10 mg/L nitrate as nitrogen). The workplan must propose an implementation schedule. Include a report describing the volumes of interim uninterrupted water supplied to specific addresses up to February 28, 2009.

7. Following Executive Officer's concurrence with the detailed Alternate Water Supply Implementation Workplan for wells with nitrate as NO₃ concentrations exceeding 45 mg/L (10 mg/L nitrate as nitrogen), the Dischargers shall implement the plan according to a schedule approved by the Executive Officer.

8. The Dischargers shall be liable, pursuant to Water Code section 13304, to the Water Board for all reasonable costs incurred by the Water Board to investigate unauthorized discharges of waste, or to oversee cleanup of such waste, abatement of the effects thereof, or other remedial action, pursuant to this Order. The Dischargers shall reimburse the Water Board for all reasonable costs associated with site investigation, oversight, and cleanup. Failure to pay any invoice for the Water Board's investigation and oversight costs within the time stated in the invoice (or within thirty days after the date of invoice, if the invoice does not set forth a due date) shall be considered a violation of this Order. If the Property is enrolled in a State Board-managed reimbursement program, reimbursement shall be made pursuant to this Order and according to the procedures established in that program.

9. All technical and monitoring plans and reports required in conjunction with this Order are required pursuant to Water Code section 13267 and shall include a statement by the Dischargers, or an authorized representative of the Dischargers, certifying (under penalty of perjury in conformance with the laws of the State of California) that the workplan and/or report is true, complete, and accurate. Hydrogeologic reports and plans shall be prepared or directly supervised by, and signed and stamped by a Professional Geologist or Professional Civil Engineer registered in California.

This Order in no way limits the authority of this Water Board to institute additional enforcement actions or to require additional investigation and cleanup of the site consistent with the Water Code. This Order may be revised by the Executive Officer as additional information becomes available.

Compliance with the provisions of this Order by any one or more of the primary responsible parties will be considered as compliance by all primary and secondary responsible parties. If none of the primary responsible parties comply with this Order, all of the primary responsible parties will be considered in non-compliance with this Order and subject to additional enforcement action.
Failure to comply with the terms or conditions of this Cleanup and Abatement Order will result in additional enforcement action, which may include the imposition of administrative civil liability pursuant to Water Code sections 13350 and 13268 or referral to the Attorney General of the State of California for such legal action as he or she may deem appropriate.

Any person aggrieved by this action of the Lahontan Water Board may petition the State Water Board to review the action in accordance with Water Code section 13320 and California Code of Regulations, title 23, sections 2050 and following. The State Water Board must receive the petition by 5:00 p.m., 30 days after the date of this Order, except that if the thirtieth day following the date of this Order falls on a Saturday, Sunday, or state holiday, the petition must be received by the State Water Board by 5:00 p.m. on the next business day. Copies of the law and regulations applicable to filing petitions may be found on the Internet at: http://www.waterboards.ca.gov/public_notices/petitions/water_quality or will be provided upon request.

Ordered by: Harold J. Singer
Dated: Nov 10, 2008

HAROLD J. SINGER
EXECUTIVE OFFICER