Regional Water Quality Control Board
Central Valley Region
Board Meeting – 24/25 January 2008

Response to Written Comments for Central Valley Meat Company
Hanford Beef Processing Facility
Kings County
Tentative Waste Discharge Requirements

At a public hearing scheduled for 24/25 January 2008, the Regional Water Board will consider adoption of Waste Discharge Requirements for the Central Valley Meat Company – Hanford Beef Processing Facility. This document contains responses to written comments received from interested parties regarding the tentative Waste Discharge Requirements (TWDRs) circulated on 26 November 2007. Written comments were received from:

1. Provost & Pritchard, Engineering Group, Inc. on behalf of the Central Valley Meat Company.
2. Ken D. Schmidt and Associates, on behalf of the Central Valley Meat Company.

Written comments from the above interested parties are summarized below, followed by the response of the Regional Water Board staff.

PROVOST & PRITCHARD, ENGINEERING GROUP, INC.

Waste Discharge Requirements:

COMMENT 1: More land is needed because of nitrogen loading to the existing 186-acre Reuse Area. Additional acerage up to 210.5 acres has been or will be acquired in the near future by the Discharger through purchase or signed use agreement**. Recommended that the additional land be added to the permit**. Please note: that the owners of the existing 186-acre Reuse Area are Brian, Steve, and Ronnie Coelho, and that the land is not owned directly by the Discharger.

> **RESPONSE:** The TWDRs have been amended to include parcels 016-060-041 (47.74 acres), 016-130-055 (84.29 acres), and 016-130-058 (78.48 acres - pending agreement), bringing the total acerage of the Reuse Area to approximately 390 acres.

COMMENT 2: A preliminary updated water balance was prepared with hydraulic, nitrogen, and salt loading calculations. The volumes are based on the Pond 3 effluent 2003-2006 values for BOD, total nitrogen, and IDS/FTDS. This analysis is conservative since it does not include the 1.4x to 1.65x factor allowed in nutrient management plans. **Recommend that with the additional lands added to the permit, the effluent flow limit be raised from 370,000 gpd to 420,000 gpd and retain the ability to increase the flow rate to an unspecified amount in the future.**

> **RESPONSE:** Comment noted. Due to the acquisition of additional land the flow limit will be adjusted to read *"The monthly average flow rate shall not exceed 0.39 mgd. Upon written acceptance by the Executive officer of the signed use agreement for use*

of process wastewater on parcel 016-130-058, the monthly average flow rate shall be increased to 0.42 mgd."

To increase flows over the permitted limit of 0.42 mgd, the Discharger will need to submit a complete report of waste discharge at least 140 days prior to increasing flows.

COMMENT 3: Pond improvements should not be required to increase the future flow rate because land application loading is not a direct line correlation with pond storage capacity.

RESPONSE: Comment noted and the TWDRs have been amended as indicated.

COMMENT 4: Finding #13 states that " a sump in the covered holding pen area discharges to the Central Sump without any pretreatment." This is incorrect, this sump pumps water over a SWECO screen and then into the Central Sump.

RESPONSE: Comment noted and the TWDRs have been amended as indicated.

COMMENT 5: Finding # 43 – Last sentence is speculative. "Overloading….". **Request that it be deleted**.

RESPONSE: No change. Overloading of the former land application area and its contribution to increased nitrate concentrations in groundwater has been clearly documented.

COMMENT 6: Effluent Limitation B.1- Change to 420,00 gpd monthly average, and change the maximum amount to a value to be specified with a technical report but not tied to pond improvements.

RESPONSE: See response to Comments 2 and 3.

COMMENT 7: Effluent Limitation B.2- The FDS limit of 500 mg/L into the ponds on a monthly basis is low. Based on the FDS loading rates, the land application area could handle a limit of as much as 950 mg/L and still meet loading limits. The current FDS sample concentrations can exceed this 500 mg/L limit. **Recommend the FDS limit be raised to 850 mg/L**.

RESPONSE: The FDS limit is based on an annual flow-weighted average not a monthly average. Self-monitoring data from 2005, 2006, and the available data for 2007 shows that the discharge can meet this limit. However, to prevent any further ambiguity the sentence has been adjusted to read, *"The interim annual flow-weighted average fixed dissolved solids (FDS) of the discharge to the ponds shall not exceed 500 mg/L.".*

COMMENT 8: Groundwater Limitations F.1- The intent of why these limits are listed should be clarified (drinking water standards, source groundwater, monitoring wells ?). **Recommend that this section be taken out due to its confusing and redundant nature**.

RESPONSE: No change. Finding 46 of the TWDRs clearly states that the Water Quality Control Plan for the Tulare Lake Basin (Basin Plan) specifies the beneficial uses of groundwater within the Tulare Lake Basin Hydrologic Unit include municipal and domestic supply. Finding 47 of the TWDRs clearly states that to protect these beneficial uses, the Basin Plan requires, at a minimum, waters designated as domestic and municipal supply to meet the MCLs specified in Title 22 (Page III 3, paragraph 2 of the Basin Plan). The groundwater limitations are necessary to ensure the ability of the Regional Water Board to protect the beneficial uses of groundwater.

COMMENT 9: Provision G.11 (Pond Improvements) – Request that the word "deepen" be taken out. Also beginning construction of pond improvements within 90 days of approval of the Design Plan is unrealistic due to the likelihood that construction would end up starting during the rainy season. The ability to empty, dry out, and work in the ponds should occur after the rainy season. **Request the 90-day and all the compliance dates be taken out. A schedule can be prepared as part of the Design Plan**.

RESPONSE: Comment noted and the TWDRs have been amended as indicated, with a time schedule to be provided as part of the Design Plan. However, the TWDRs will set a final completion date for pond improvements by 1 January 2010.

COMMENT 10: Provision G.12 (Soil Investigation) – Since there is no intent of bringing this area into the irrigated reuse area then the investigation should not be required.

RESPONSE: No change. Due to previous overloading, the former 25-acre land application area, directly north of the wastewater ponds, was determined to be unsuitable for the application of wastewater. Since that time the field has remained fallow. With no crops to takeup the excess nitrogen in the soil. The nitrogen present in the soil continues to pose a threat to underlying groundwater. Increased nitrate concentrations in monitoring wells MW-4A and MW-6, down-gradient of the former land application area appear to support this. The TWDRs will still require a soil investigation of the former land application area and develop a cropping plan to remove excess nitrogen from the soil. However, since this area will not be required as part of the irrigation and nutrient management plan, additional alternatives other than cropping may be considered.

COMMENT 11: Provision G.13 (Irrigation and Nutrient Management Plan) – Take out "former land application area".

RESPONSE: Comment noted and the TWDRs have been amended as indicated. However, investigation and cleanup of the former 25-acre land application area is still being required (see response to Comment 10).

Monitoring and Reporting Program:

COMMENT 1: Pond Influent Discharge Monitoring – Approximately 5 years of monthly data has been collected for IDS and values are relatively consistent with no upward trends. **Request EC and Inorganic TDS remain at monthly sampling frequencies not 2/Month**.

RESPONSE: Comment noted and the MRP has been amended as indicated.

COMMENT 2: Currently the composite samples are based on time intervals. The composite sampler was replaced recently and a determination on the feasibility of taking volumetric samples can be made but not required. Replacing a new sampler ($5,000+) for purposes of taking volumetric samples would be costly. **Request that the sampling remain the same as before and that volumetric sampling not be required**.

RESPONSE: Comment noted and the MRP has been amended as indicated. However, a volumetric sample may be required in the future if it is determined that the sample is not representative of the discharge.

COMMENT 3: Pond Effluent Discharge Monitoring – Approximately 5 years of monthly data has been collected for IDS and values are relatively consistent with no upward trends. **Request EC and Inorganic TDS remain at monthly sampling frequencies not 2/Month**.

RESPONSE: See response to Comment 1.

COMMENT 4: Reporting (A.1) – **Request that "use area monitoring" be taken out (Monthly Reporting)**. It is quarterly and is listed again under Quarterly Reports.

RESPONSE: Comment noted and the MRP has been amended as indicated.

COMMENT 5: Groundwater Monitoring: Consistent with recommendations by Ken Schmidt for semi-annual groundwater monitoring. Groundwater reporting requirements be changed to read "Monitoring analytical data obtained semi-annually is to be presented in tabular form for selected constituents and included with the previous data obtained for a given well".

RESPONSE: Comment noted, see response to semi-annual groundwater monitoring.

COMMENT 6: Annual Reports – **Request to have the Annual Reports due on 1 March rather than 1 February**, as more time is needed to compile analyze, and prepare the report.

RESPONSE: Comment noted and the MRP has been amended as indicated.

COMMENT 7: For solids reporting, a single test for dry tons and percent solids can be done and a correlation between loads and truck weights can be made. The truck loads can be counted and totaled. Request that every load should not have to be weighed.

RESPONSE: The Reporting requirements, call for a calculation of the annual solids production in dry tons and percent solids. There is no specification for how the calculation is to be done, so long as it can be justified.

Information Sheet:

COMMENT 1: Under Groundwater Conditions (Page 2, paragraph 2, first sentence), the word "significantly" should be replaced with "on a geographical basis".

RESPONSE: Comment noted. The sentence has been adjusted to read "*Nitrate concentrations in groundwater beneath the Facility and the Reuse Area is variable with concentrations ranging from non-detect to 192 mg/L."*

KEN D. SCHMIDT AND ASSOCIATES

Waste Discharge Requirements:

COMMENT 1: Finding #40. The comment about the background quality of shallow groundwater in the area as being "generally good" should be revised since arsenic was not considered. Arsenic concentrations in background wells MW-8 and MW-10 exceed the MCL for arsenic, which renders shallow groundwater in the area unsuitable for drinking water.

RESPONSE: Comment noted. Finding #40 has been adjusted to read, *" Monitoring wells MW-8 and MW-10, up-gradient or cross-gradient of the wastewater ponds and the land application areas best represent background water quality. Background quality of shallow groundwater in the area is generally good, except for arsenic, with an average EC of 610 umhos/cm, a chloride concentration of 55 mg/L, total dissolved solids of 410 mg/L, nitrate as NO_3 of 1 to 30 mg/L. Arsenic in shallow groundwater with concentrations as high as 381 ug/L exceed the drinking water quality objective."*

COMMENT 2: Groundwater Monitoring - Groundwater monitoring at this facility began in 1991. Groundwater data shows relatively slow changes and consistent patterns. Request that the frequency of groundwater monitoring be changed to semi-annual instead of quarterly.

RESPONSE: The MRP has been adjusted as follows:

Groundwater Monitoring:

- Quarterly – Depth-to-Groundwater, groundwater elevation, pH, and electrical conductivity;
- Semi-annually – Total dissolved solids, nitrate, ammonia, TKN, total nitrogen, iron, and manganese; and
- Annually – Total organic carbon, and general minerals.