

# NEVADA DIVISION OF ENVIRONMENTAL PROTECTION

## FACT SHEET

(pursuant to NAC 445A.236)

**Permittee:** San Emidio Agrigate, Inc.  
% Orient Farms LLC  
P.O. Box 152  
Gerlach, Nevada 89412

**Permit:** NEV2004521

**Location:** Orient Farms  
25 miles north of Gerlach on Highway 34  
Gerlach, Nevada 89412  
Pershing and Washoe Counties  
Latitude: 40° 56' 30" N; Longitude 119° 17' 30" W  
Township 35N, Range 23E, Sections 1, 2, 11-14, 23-26 MDB&M  
Township 35N, Range 24E, Sections 6-8, 18 MDB&M

### **Corrective Actions Sites:**

There are no Bureau of Corrective Actions (BCA) remediation sites located within a one-mile radius of the permitted facility.

### **Well Head and Drinking Water Supply Protection:**

The facility is not within a currently established Wellhead Protection Areas (WHPA), nor within a currently established Drinking Water Protection Areas (DWPAs):

### **General:**

The Permittee proposes to land apply Class B, or better, biosolids, digested sewage sludge, generated by the Tahoe-Truckee Sanitation Agency (TTSA) and the City of Eureka, California (COE), and to compost waste activated sludge (WAS) also generated by TTSA and COE; at Orient Farms, Gerlach, Nevada. The TTSA wastewater treatment plant is located 12 miles north of Lake Tahoe in Truckee, California. Orient Farms straddles the Pershing/Washoe County line at Hualapai Flat. The Permittee has been composting TTSA WAS at this location as authorized by the permit originally issued in 2004. The Permittee has requested that biosolids and WAS from COE be allowed to be composted and applied under this permit renewal.

Biosolids and compost are land applied to agricultural soils as a soil amendment to provide nutrients and improve soil structure. The permit will restrict the land application to appropriate portions of the ranch; i.e. biosolids cannot be applied within fifty feet of waters of the U.S., biosolids cannot be applied to land if the depth to groundwater is less than three feet below ground surface, etc.

The proposed permit will authorize the Permittee to land apply bulk biosolids from TTSA and COE only. TTSA and COE are responsible for the biosolids pathogen reduction and analyses, i.e. metals, nutrients, etc. The Permittee is responsible for determining biosolids application rates and complying with the site restrictions.

Biosolids applied to the land surface shall be incorporated into the soil within six hours of application to the land. Only non-food (not for human consumption) crops may be grown on land that has had Class B biosolids applied within the past five years. Animals shall not be grazed on the land for 30 days after application of biosolids.

To qualify as pollutant concentration (PC) biosolids, the arsenic, cadmium, chromium, copper, lead mercury, molybdenum, nickel, selenium, and zinc concentrations must be below the PC limits established by Title 40 of the Code of Federal Regulations, Part 503 (40 CFR Part 503). PC biosolids are exempt from the cumulative pollutant loading rate requirements, therefore, PC biosolids may be applied based on the agronomic rate. With the exception of one round of sampling in 3<sup>rd</sup> quarter 2005, TTSA biosolids have met the PC limits. The agronomic rate for biosolids is a rate that is designed to provide the amount of nitrogen needed by a crop to attain a desired yield while minimizing the amount of nitrogen that will pass below the root zone of the crop to the groundwater.

WAS is excess sludge produced in an activated sludge secondary biological wastewater treatment process. WAS does not meet the definition of biosolids due to elevated pathogen and volatile solids concentrations. Composted WAS, meeting the PC limits and composting requirements of 40 CFR Part 503, may be beneficially used at Orient Farms without pathogen analysis. Nitrogen analysis of the compost will be required. The 13-acre composting facility is located at Township 35 N, Range 24 E, Section 8. The biosolids and WAS are dewatered by TTSA and COE prior to transport to Orient Farms.

**Receiving Water Characteristics:**

The groundwater at the facility is reported to be at a depth in excess of 80 feet below ground surface at an elevation of approximately 3,980 feet above mean sea level and is reportedly of good quality.

Groundwater monitoring is not required for agricultural biosolids beneficial use sites.

**Proposed Effluent Limitations:**

During the period beginning on the effective date of this permit and lasting until the permit expires, the Permittee is authorized to:

- Compost waste activated sludge (WAS) provided by the Tahoe-Truckee Sanitation Agency (TTSA) or City of Eureka (COE); and
- Land apply Class B, or better, biosolids produced by TTSA or COE, and composted WAS on nutrient deficient soils at Orient Farms.

Samples taken in compliance with the monitoring requirements specified below shall be collected at the following locations:

- a. At the beneficial use site, Orient Farms;
- b. At the composting facility, Orient Farms;
- c. At the facility generating the biosolids, TTSA or COE; and

d. At the facility generating the WAS, TTSA or COE.

The biosolids and WAS shall be limited and monitored by the Permittee as specified below:

**MONITORING REQUIREMENTS<sup>1</sup>**

BIOSOLIDS CHARACTERISTICS	DISCHARGE LIMITATIONS	MONITORING REQUIREMENTS		
	Quarterly Average	Sample Location	Measurement Frequency	Sample Type
Biosolids Delivered (wt)	M & R	a	Each Load	Calculate <sup>2</sup>
WAS Delivered (wt)	M & R	b	Each Load	Calculate <sup>2</sup>
Total Material Delivered (wt)	5,000 <sup>3</sup>	a + b	Annually	Calculate <sup>2</sup>
Organic Nitrogen (mg/Kg)	M & R	c	Quarterly	Discrete <sup>4</sup>
		b		Composite
Ammonia Nitrogen (mg/Kg)	M & R	c	Quarterly	Discrete <sup>4</sup>
		b		Composite
Nitrate Nitrogen (mg/Kg)	M & R	c	Quarterly	Discrete <sup>4</sup>
		b		Composite
Plant Available Nitrogen (lb-N/ton)	M & R	b, c	Quarterly	Calculate
Arsenic (mg/Kg)	41	c, d	Quarterly	Discrete <sup>4</sup>
Cadmium (mg/Kg)	39	c, d	Quarterly	Discrete <sup>4</sup>
Chromium (mg/Kg)	1200	c, d	Quarterly	Discrete <sup>4</sup>
Copper (mg/Kg)	1500	c, d	Quarterly	Discrete <sup>4</sup>
Lead (mg/Kg)	300	c, d	Quarterly	Discrete <sup>4</sup>
Mercury (mg/Kg)	17	c, d	Quarterly	Discrete <sup>4</sup>
Molybdenum (mg/Kg)	75	c, d	Quarterly	Discrete <sup>4</sup>
Nickel (mg/Kg)	420	c, d	Quarterly	Discrete <sup>4</sup>
Selenium (mg/Kg)	36	c, d	Quarterly	Discrete <sup>4</sup>
Zinc (mg/Kg)	2800	c, d	Quarterly	Discrete <sup>4</sup>
Fecal Coliform (MPN/gram)	2,000,000 <sup>5</sup>	c	Quarterly	Composite
Application Area (acres)	M & R <sup>6</sup>	a.	Quarterly	Calculate
Crop Grown	Report <sup>6</sup>	a.	Annually	Report
Crop Yield (tons/acre)	M & R <sup>6</sup>	a.	Annually	Calculate

Footnotes:

1. Biosolids and WAS monitoring requirements shall be satisfied by data provided by the generator, TTSA or COE.
2. From truck count, assume all loads are full.
3. Annual total biosolids and WAS.
4. If TTSA or COE analyzes composite biosolids and WAS samples, discrete sampling is not required.
5. Geometric mean of at least seven samples taken over a 14-day period.
6. Report biosolids and compost applied separately.

M & R: Monitor and Report  
 wt: Wet metric tons.  
 MPN: Most probable number.

mg/Kg: Milligrams per dry kilogram.  
 lb-N/ton: Pounds of nitrogen per ton of biosolids.

Composting Requirements: To be eligible for bulk distribution, the windrowed compost must be maintained at  $\geq 55^{\circ}$  C for 15 days and turned at least 5 times during the 15 day period. Temperature and windrow turning records shall be maintained on site and made available to the Division upon request.

Pathogen analysis is not required for material that has been composted according to Part I.A.4. of the permit and will be beneficially used at the facility.

**Schedule of Compliance:**

The Permittee shall implement and comply with the provisions of the schedule of compliance after approval by the Administrator, including in said implementation and compliance, any additions or modifications that the Administrator may make in approving the schedule of compliance.

- a. The Permittee shall achieve compliance with the effluent limitations upon issuance of the permit.
- b. **By MMMM DD, 2010**, the Permittee shall submit to the Division for review and approval any updates to the Operations and Maintenance Manual for the land application and composting operations.

**Rationale for Permit Requirements:**

Monitoring of the biosolids and WAS by TTSA and of the compost and application rate by the Permittee is required to protect the public and wildlife from pathogens that may be in the biosolids and to protect waters of the State from being degraded by these materials.

The composting and beneficial use sites shall be operated in accordance with the Operations and Maintenance (O&M) Manual that must be approved by the Division.

**Proposed Determination:**

The Division has made the tentative determination to issue the proposed permit for a five (5) year period.

**Procedures for Public Comment:**

Notice of the Division's intent to issue a permit authorizing the facility to land apply Class B, or better, biosolids and to compost waste activated sludge at Orient Farms subject to the conditions contained within the permit, is being sent to the **Lovelock Review-Miner** and the **Reno Gazette-Journal** for publication. The notice is being mailed to interested persons on our mailing list. Anyone wishing to comment on the proposed permit can do so in writing until **5:00 P.M. May 10, 2009**, a period of 30 days following the date of the public notice. The comment period can be extended at the discretion of the Administrator.

A public hearing on the proposed determination can be requested by the applicant, any affected State or interstate agency, the Regional Administrator of EPA Region IX or any interested agency, person or group of persons. The request must be filed within the comment period and indicate the

interest of the person filing the request and the reasons why a hearing is warranted. Public hearings granted by the Division shall be conducted in accordance with NAC 445A.238.

The final determination of the Administrator may be appealed to the State Environmental Commission pursuant to NRS 445A.238.

Prepared by: Janine O. Hartley, P.E.  
Draft: October 2009

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