

NEVADA DIVISION OF ENVIRONMENTAL PROTECTION

FACT SHEET

(pursuant to NAC 445A.236)

Permittee: Sunrise Plumbing and Heating
5330 Grass Valley Road
Winnemucca, Nevada 89445

Permit: NEV2001510 – Renewal

Location: Avery Farm, formerly A & C Farm
8025 Jungo Road
Winnemucca, Humboldt County, Nevada 89445
Latitude: 40° 58' N
Longitude: 117° 50' W
Township 23 N, Range 37 E, Sec. 29 MDB&M

Public Water Supply: The land application site is not located within a 2-, 5-, or 10-year capture zone nor a 7000-foot buffer zone for any public water supply well.

General: The Permittee proposes to continue to land apply domestic septage, portable toilet fluid, and grease interceptor material to a 160-acre, nutrient deficient site approximately five miles west of Winnemucca on the north side of Jungo Road under Authorization to Apply Domestic Septage NEV2001510. The Permittee has been authorized to land apply domestic septage at the site since October 31, 2001 under NEV2001510 and from May 3, 2001 through October 30, 2001 under Temporary Permit TNEV2001321, as A & C Farm.

The Permittee has land applied these fluids to two 10-acre fields of the site for over five years based on an incorrect crested wheat nitrogen demand, 100 pounds of nitrogen per acre per year, provided by the Division. A nitrogen demand in the range of 31 to 35 pounds per acre per year is more probable for a dry land crop such as crested wheat. The previous permit authorized a two-year rotation for a crop that was grazed. Currently, for a two-year rotation, year 1 – apply, year 2 – plant and harvest, the crop must be harvested to determine the crop yield and future application rates. For crops that will be grazed, septage should only be applied once every five years. Therefore, the permit will require the submittal of an accounting of all septage applied to the two 10-acre fields under the previous permits. If the applied nitrogen exceeds the agronomic rate and/or accepted crop rotation procedures, the Permittee must relocate to other fields within the 160-acre site and not reapply to the two 10-acre fields until the applied nitrogen has been utilized. A crop must be maintained on these fields until the nitrogen has been utilized.

Septage Use Requirements:

-Septage beneficial use shall meet all requirements of 40CFR section 503, Standards for the Use or Disposal of Sewage Sludge.

-Domestic septage and grease interceptor material shall be incorporated into the soil within 6 hours of being land applied.

- A crop must be planted to uptake the nitrogen that is contained in the septage within one year of domestic septage application.

-Domestic septage and grease interceptor material shall not be applied to land, if the depth to groundwater is less than 3 feet.

-Domestic septage and grease interceptor material shall not be applied to land within 100 feet of any public roadway or 600 feet from a residence.

-Domestic septage and grease interceptor material shall not be applied to land within 200 feet of a drinking water well not defined as a public water system well.

- Domestic septage and grease interceptor material shall not be applied within 1,000 feet of a public water system well.
- Domestic septage and grease interceptor material shall not be applied within 50 feet of an irrigation well that has been sealed per Nevada Administrative Code (NAC) 534.380.
- Domestic septage and grease interceptor material shall not be applied within 200 feet of an irrigation well that is not sealed or cannot be documented as sealed per NAC 534.380.
- Domestic septage and grease interceptor material shall not be applied within 50 feet of any irrigation or drainage ditch, swale, intermittent stream, creek, river, wetland, lake, or other surface water.
- Grease interceptor material shall be mixed with domestic septage at a rate of one part grease interceptor material to at least three parts domestic septage, by volume, prior to land application.
- The crop used to determine the annual application rate, Part I.A.4., shall be planted within one-year of the land application of domestic septage.
- Equipment to incorporate the domestic septage and grease interceptor material into the soil shall be on the site and in operating condition at the time of land application.
- The domestic septage and grease interceptor material shall be land applied at a uniform rate by means of a spray bar, splash plate, or similar method approved by the Division.
- The domestic septage and grease interceptor material shall be screened through a ½-inch or finer screen to remove solids from the septage and grease interceptor material prior to land application. Solid material removed from the domestic septage and grease interceptor material shall be disposed of in an approved landfill.
- All land application sites shall be fenced and posted with warning signs stating “DOMESTIC SEPTAGE APPLIED, NO TRESPASSING”, or similar.
- Food crops shall not be grown on land that has had domestic septage applied within the past five (5) years. (Food crops are crops consumed by humans. These include, but are not limited to, fruit, vegetables, and tobacco.)
- All tanks used for storage at the beneficial use sites shall be permanently labeled to identify the contents of the tank, the Permittee, the Permittee’s phone number, and the Permittee’s address.
- If the harvested crop yield is less than the crop yield used to determine the agronomic rate, the domestic septage application rate shall be reduced a proportional amount in subsequent years.
- If commercial nitrogen fertilizer or nitrogen from any other source is applied to this/these field(s), the agronomic rate shall be reduced a proportional amount.
- If material pumped from portable toilets, holding tanks, or similar devices where the material is unlikely to have been anaerobically digested will be land applied, the application rate shall be one-sixth of the domestic septage application rate.
- If the crop is not harvested, i.e. grazed, domestic septage shall not be applied to any area previously receiving domestic septage for four growing seasons, a five-year rotation.
- If the crop seed germination rate is estimated to be less than 50% in any planted area, the area shall be replanted at the planting rate specified in the Operations and Maintenance (O&M) Manual. Any required replanting shall not affect five-year crop rotations as defined in the O&M Manual.

Receiving Water Characteristics: The permit application lists the depth to groundwater at the land application site as approximately 180 feet below ground surface (bgs). The Permittee does not know of any wells within a one-mile radius of the facility. The Division of Water Resources (DWR) Well Log Database lists no wells in section 29, nor

in the adjacent sections 19, 20, 21, 28, 30, 31, 32, and 33. With no nearby wells it is not possible to provide groundwater quality data for this site.

Characteristics: Only domestic septage, portable toilet fluid, and grease interceptor material may be land applied under this permit. No analysis of the domestic septage, portable toilet fluid, or the grease interceptor material is required. Grease interceptor material shall be mixed with domestic septage at a rate of one part grease interceptor material to a minimum of three parts domestic septage, by volume, before it is land applied.

Material pumped from portable toilets, holding tanks, or similar devices where the material is unlikely to have been anaerobically digested shall be applied at one-sixth of the domestic septage land application rate.

The land application of industrial or commercial waste, including material pumped from car washes, is not authorized by this permit.

Flow: The application rate, in gallons of septage per acre per year, shall be based on the amount of nitrogen required by the planned crop, crested wheat.

$\text{gallons/acre} = \text{pounds of nitrogen required for crop yield} \div 0.0026$

Example: A crop nitrogen requirement of 33 pounds per acre per year and a 30-day average flow of 660 gallons per day would require approximately 18.8 acres per year for land application. The 33 pounds of nitrogen per acre is an example based on an estimated crested wheat nitrogen demand. Actual nitrogen demand values must be based on the recommendations of the Cooperative Extension Service or other cropping expert with local experience regarding crop nitrogen demand and yields.

The Permittee has not requested a 30-day average flow or a daily maximum flow. Permits for the land application of domestic septage do not include flow limitations, provided that adequate land is available for application.

Over the last three reported quarters, the Permittee land applied an average of 19,900 gallons of domestic septage and grease interceptor material per month with a maximum discharge of 25,700 gallons in October 2005 and a minimum of 12,200 gallons in December 2005. The Permittee has applied a total of 830,000 gallons over the term of the 5-year permit.

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 which the Administrator may make in approving the schedule of compliance. The Permittee shall implement and/or execute the following scheduled compliance requirements:

- a. Upon the effective date of this permit, the Permittee shall achieve compliance with the beneficial use limitations.
- b. By November 1, 2006, the Permittee shall submit an Operations and Maintenance (O&M) Manual covering the land application and beneficial use of the domestic septage and grease interceptor material at the facility to the Division for review and approval. The O&M shall include planned cropping practices, agronomic rates, septage application rates and justification for the application rates, delineation of the areas within the 160-acre site proposed for land application, method of screening, method of incorporation, storage tank use, etc.
- c. By November 1, 2006, the Permittee shall submit to the Division a summary of all domestic septage applied to each one acre subdivision (from quarterly reports) of the two 10-acre fields of the previous permits, the crop planted and the agronomic rate of the planted crop, and a nitrogen balance. If the nitrogen applied and utilized are not balanced, the Permittee shall immediately relocate the land application activities to other portions of the 160-acre parcel and not reapply to the two 10-acre fields until all applied nitrogen has been utilized.

Rationale for Permit Requirements: Permit requirements are necessary to protect the public health and prevent the land application site from becoming a public nuisance and source of groundwater pollution.

The crop to be planted shall be monitored to verify utilization of the applied nitrogen. The additional crop rotation requirements will ensure better utilization of applied nutrients than was attained under the previous permit.

Groundwater monitoring is typically not required for agricultural domestic septage beneficial use sites. No groundwater monitoring will be required at this site due to the depth to groundwater.

Proposed Determination: The Division has made the tentative determination to issue the proposed permit for a period of five (5) years.

Procedures for Public Comment: The Notice of the Division's intent to issue a permit, NEV2001510, authorizing the Permittee to continue to land apply domestic septage, portable toilet fluid, and grease interceptor material subject to the conditions contained within the permit, is being sent to the **Humboldt Sun** 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 for a period of 30 days following the date of publication of the public notice in the newspaper. The date and time by which all written comment must be postmarked or transmitted to the Division via facsimile or e-mail is 5:00 P.M. October 11, 2006. 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, any affected 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 must indicate the interest of the person filing the request and the reasons why a hearing is warranted. Any public hearing determined by the Administrator to be held must be conducted in the geographical area of the proposed discharge or any other area the Administrator determines to be appropriate. All public hearings must 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.605 and NRS 233B.

Prepared by: Bruce Holmgren
September 2006