

# **Los Alamos Community Services District**

## **Odor Abatement Plan**

**(April 11, 2005)**

To reduce the potential for significant odor impacts from the spray irrigation and associated activities and operations to nearby residential areas the Los Alamos Community Services District (LACSD) will establish and maintain an Odor Abatement Plan (OAP). This plan is intended to implement the recommendations contained within the Santa Barbara County Air Pollution Control District's (APCD) March 1, 2005 letter to the County of Santa Barbara regarding Case No. 04RVP-00016. The various required components of LACSD's OAP are identified below.

### **CONTACT INFORMATION**

General Manager- Kevin Barnard will be the primary contact person for the LACSD and is responsible for logging in and responding to odor complaints. The General Manager can be reached at the District office during normal business hours, Monday through Friday from 8:00 am to 4:30 pm at 805-344-4195 or after normal business hours on his cell phone at 805-331-5734. The Secondary contact shall be Lead Operator-Ramon Gomez from the LACSD, who can also be reached at the District office at 805-344-4195 or after hours on his cell phone at 805-714-0978. In the event of personnel change at the LACSD, the OAP will be updated, with a courtesy copy provided to the Santa Barbara County Air Pollution Control District (APCD).

### **POLICY AND PROCEDURES**

It is the standard operating policy of the District that every odor complaint be investigated promptly. Upon notification of the complaint, LACSD staff will log all necessary information (please refer to the attached Odor Complaint Form), including the following:

- the date and time the complaint was received
- the complainant's name and phone number
- the nature of the complaint
- the name of the LACSD staff person handling the complaint

LACSD field staff will promptly respond and investigate the nature of the complaint and report back to the person who initially filled the complaint with an explanation of the odor and the identification of any possible corrective actions that may be taken. The primary method of investigation by LACSD staff relating to offending odors will be through a visual and olfactory assessment of the area(s) identified within the complaint. The LACSD will notify the Santa Barbara Air Pollution Control District (APCD) when a complaint is filed whether the odor is associated with the LACSD's operations or not. If

corrective action is taken, a follow up communication will be made to the resident who filed the complaint to ensure that the problem has been resolved, as well as, to the APCD. Information to be provided in the Districts's follow-up communication includes the following (see attached Odor Complaint Form for additional details):

- what the cause of the odor was determined to be
- what was and/ or will be done to repair/ resolve the issue
- the anticipated date of completion for any necessary repairs, etc.

All field staff that work at the LACSD Wastewater Treatment Plant and in the Sewer Collection System are certified as Wastewater Treatment Plant Operators through the State of California State Water Resources Control Board and through the California Water Environment Association in sewer collection. Through this certification the LACSD operator's are trained in all aspects of the Districts wastewater operations, including the sewer collection system, lift station operation, operation and maintenance of spray irrigation reclamation fields and the operation and maintenance of other related equipment. In addition, all LACSD staff have been trained through in-house meetings/trainings on how to respond to customer complaints and what information is required to be logged.

## **POTENTIAL ODOR SOURCES**

The Los Alamos Wastewater Treatment Plant is a facultative pond system that uses two ponds (influent and effluent pond) for the treatment of sewage. In the pond system, sewage is treated by the reduction of organic substances, both solid and liquid by bacteria and algae. The Los Alamos Wastewater Treatment Plant uses both aerobic and anaerobic bacteria. The treatment system makes use of the aerobic bacteria that requires oxygen to reduce and consolidate waste components. Each pond has a floating aerator that supplies oxygen to the pond and to the bacteria. As the raw sewage enters the influent pond it is mixed with water full of bacteria already in the process and dispersed into a highly oxygenated environment. As particles gain weight, they settle to an area below where aerobic activity is taking place. Toward the bottom of the pond, anaerobic bacteria work on forming sludge. One of the products of anaerobic activity is hydrogen sulfide, which produces a rotten egg odor. Hydrogen sulfide however, is broken down by oxygen. Oxygen, therefore, is critical for both facilitating aerobic activity and for the neutralization of odor causing gases produced by the ponds.

In addition to the potential Hydrogen Sulfide odor which may be associated with the main plant's operation; effluent water contained in the spray irrigation lines can become stagnant if the line remains dormant for too long, thus, producing a similar rotten egg odor.

## **TREATMENT OF ODOR SOURCES**

The potential hydrogen sulfide odor in the treatment ponds can be treated through proper operation and maintenance of the plant's pond system. In addition, the District has a spare aerator that can be utilized in the event of equipment failure resulting in proper aeration of the treatment ponds.

The potential Hydrogen Sulfide odor associated with stagnant effluent water contained in the spray irrigation lines can also be treated through proper operation and maintenance, which includes regular flushing of all irrigation lines. The District also has a spare irrigation pump that it can install in the event of equipment failure, which would reduce any irrigation down time while also minimizing the likelihood of the effluent in the irrigation system from becoming stagnant.

As long as the treatment plant is operating properly as mandated by Order RS-2005-0133 of the Regional Water Quality Control Board, the plant equipment is regularly maintained, and any future urban development within the plant vicinity maintains appropriate setback distances, the odors associated with the treatment plant and spray irrigation system will remain less than significant.