Introduction

The Agency for Toxic Substances and Disease Registry (ATSDR), a federal public health agency, evaluated whether hydrogen sulfide (H$_2$S) from Fenimore Landfill could harm the health of the nearby community. This fact sheet summarizes the health consultation report ATSDR has released for public comment. [full report available at: http://www.atsdr.cdc.gov/HAC/PHA/HCPHA.asp?State=NJ]

Fenimore Landfill, a former solid waste landfill in Roxbury Township, New Jersey, was reopened in 2011 to accept materials such as gypsum wallboard fines and debris. In Fall 2012, nearby residents began reporting a rotten egg smell coming from the landfill.

Air monitoring showed high levels of hydrogen sulfide (H$_2$S), which is formed when gypsum is broken down. In June 2013, the New Jersey Department of Environmental Protection (NJDEP) took over the site and installed a gas extraction and treatment system which began operating continuously in December 2013.

ATSDR evaluated H$_2$S exposures using air monitoring data collected before and after the gas extraction and treatment system began operating and addressed several other community concerns.

Summary of Key Findings

H$_2$S exposure could have harmed health before the gas extraction and treatment system was installed.

- At times, the level of H$_2$S exposure was high enough to cause lung problems or headaches, especially in people with asthma or other breathing conditions.
- The offensive odor of H$_2$S could have caused other harmful effects such as eye, nose, and throat irritation; nausea; and headaches.

The treatment system greatly reduced H$_2$S levels. Most of the harmful health effects would have resolved after the H$_2$S levels went down.

- However, some people could still suffer health effects from H$_2$S odors or from stress caused by previous exposures to H$_2$S.
Other Findings

- Exposure to other compounds released into the air by the landfill or to sulfur dioxide (SO$_2$) formed in the treatment process is not likely to harm health.
- Methane production from the landfill is unlikely to pose an explosion risk to nearby homes.
- Drinking from wells using groundwater near the landfill is unlikely to harm health.
- Unidentified hazardous materials could exist in the landfill.

What the dots mean:

- **Red** means we believe harmful health effects were possible
- **Green** means we believe harmful health effects are not likely
- **Purple** means we need more information

ATSDR Recommendations

- Continue to operate the gas extraction and treatment system until components of the landfill gas are at concentrations too low to cause any concern for safety or health.
- Continue and verify community H$_2$S and SO$_2$ monitoring to confirm proper operation of the treatment system and to provide reassurance to community members that the air is safe.
- Continue monitoring groundwater and private wells near the landfill.

Next Steps

ATSDR’s report is available for review at: http://www.atsdr.cdc.gov/HAC/PHA/HCPHA.asp?State=NJ and at the Roxbury Public Library at 103 Main Street in Succasunna. Your comments will improve the quality of the report. Send comments by October 30, 2015 to ATSDRRecordsCenter@cdc.gov, or mail to:

ATSDR Records Center, ATTN: Rolanda Morrison
RE: Fenimore Landfill Site, Roxbury Township, NJ
1600 Clifton Rd., NE (MS F-09)
Atlanta, GA 30329-4018

Written comments received during the public comment period, without the names of who submitted them, and ATSDR responses will appear in an appendix to the final health consultation. If requested under the U.S. Freedom of Information Act (FOIA), the names of those who submit comments may be releasable under FOIA rules.

Where To Learn More

ATSDR: www.atsdr.cdc.gov
Environmental Odors: www.atsdr.cdc.gov/odors

For questions regarding ATSDR activities at this site, community members can contact Dr. Jill Dyken, the site team lead, at JDyken@cdc.gov or at 770-488-0768.