**Meeting Minutes**

**JED Landfill CH4 Exceedance**

**Topic:** Discuss the landfill gas migration issue at JED Class I landfill and its relationship to ground water quality.

**Date:** May 20, 2010

**Location:** FDEP Central District

**Attendees:** Tom Lubozynski, FDEP Gloria-Jean DePradine, FDEP

Kim Rush, FDEP Marjorie Heidorn, FDEP

Garry Kuberski, FDEP Mike Kaiser, WSI

Kirk Wills, EPS Kevin Brown, Golder Associates

Don Grigg, Golder Associates

**Discussion**

**History:** Methane gas has been measured at levels above the LEL for over the past two years at JED landfill. Various studies and corrective actions have been done by JED in order to better understand and address the Methane (CH4) exceedances. Installing the closure cap on side slopes of Cells 1-4 has not seen changed the measurements. Areas around Cell 4 of the landfill are turning brown; this could be the result of escaping landfill gas. The gas collection system seems to have no effect.

**Temporary Probes:** JED installed three temporary probes in the landfill perimeter berm (TPG1, TPG2, and TPG3) and began monitoring these probes in September 2009. The probes were installed 10 feet within the base of the perimeter and screened close to the seasonal groundwater level.Results from these temporary probes show that gas is migrating through the landfill perimeter berm.

**Bar Hole Probes:** Bar hole probes were installed on the south side of the landfill property away from any waste disposal. The purpose of the bar hole probes was to determine the amount, if any, of background methane in the ground. The bar hole probes are not to the depth that the gas monitoring probes are. The bar hole probes were monitored and measurements of approximately 0.5% CH4 were noted. In December 2009, a second fingerprint analysis was conducted on the gas flare, on gas probes 11, 18, 21, and on temporary gas probes 1 and 3.

**Ground Water Quality:** Benzene has been an issue for approximately 2.5 years (started around 2007). The wells affected were 8, 9, 10 and 11. Well 9A is still an issue. JED indicated benzene is originating from sources other than the landfill. JED will continue to monitor benzene in Well 9A.

**Source of CH4:** JED is not convinced that it is landfill gas showing up in the gas monitoring wells. JED believes the gas probes are being affected by off-site source but admits that landfill gas is migrating through the landfill berm.

**Corrective Actions Discussed:**

1. Continue to monitor all gas probes.
2. Increase the vacuum on the gas collection system.
3. Modify the bottom liner to cut off the possibility of gas migration. (completed)
4. Install a wet ditch which goes to the water table along GP18, GP19, GP20.
5. Installation of the next series of gas wells.
6. Fix gas leaks in cell 4 (as seen by the browning of grass).
7. Examine all vertical manhole sumps for leaks.
8. Determine a better measurement technique for landfill gas migration.

**Next Steps:**

1. JED is to submit to the Department a report signed and sealed by a PE summarizing all studies and actions taken regarding the gas migration issue from 2008 to date and further studies and actions to be taken.

**Attachments:**

1. Attachment 1: Draft Probe Location Map
2. Attachment 2: Cross Section Probe Location Map
3. Attachment 3: December 2009 Landfill Gas Fingerprint Analysis
4. Attachment 4: Methane Gas Migration Study