



North Carolina Department of Environment and Natural Resources

Pat McCrory
Governor

Donald R. van der Vaart
Secretary

February 23, 2015

Mr. Kent Brandon
Wilkes County Department of Solid Waste
P.O. Box 389
Roaring River, NC 28669

Re: Landfill Gas Remediation Plan
Wilkes County - Dan Johnson Landfill, Permit# 97-02

Dear Mr. Brandon:

The Solid Waste Section (Section) has reviewed the *Landfill Gas Remediation Plan, Wilkes County – Dan Johnson Landfill* submitted by Joyce Engineering, Inc. (JEI) on February 18, 2015. The remediation plan was submitted in response to landfill gas exceedances recorded in landfill gas probe GP-2 and a resulting Notice of Violation from the Section on January 20, 2015.

Landfill gas probes GP-1, GP-2, and GP-3 were installed to fulfill the requirements of a revised landfill gas monitoring plan approved by the Section on July 18, 2012. GP-2 landfill gas concentrations were reported above the lower explosive limit (LEL) subsequent to its installation while GP-1 and GP-3 have not exhibited methane concentrations above the LEL.

In order to address the methane exceedances at GP-2, JEI has proposed to install a gas intercept trench along the northern edge of waste near GP-2. The trench is proposed to be constructed 100 feet long extending approximately 60 feet west of GP-2 to approximately 40 feet east of GP-2, 1-2 feet wide, and 20 feet deep. The intercept trench is proposed to be constructed with a 10-mil plastic vapor barrier and three perforated risers placed at 40 foot intervals within the trench. Non-calcareous 1-2 inch diameter gravel will be backfilled within the trench up to three feet below grade. The remaining 3 feet will be comprised of compacted native soil and bentonite.

If the interceptor trench does not effectively reduce landfill gas concentrations in GP-2, after one year, JEI will explore additional remedial options. The Section approves the plan as proposed and Wilkes County is permitted to begin implementation. Please contact me at 919-707-8288 or by email at ervin.lane@ncdenr.gov if you have any questions or concerns regarding this correspondence. Thank you for your continued cooperation with this matter.

Sincerely,

Ervin Lane
Hydrogeologist
Environmental Compliance
Solid Waste Section

1646 Mail Service Center, Raleigh, North Carolina 27699-1646
Phone: 919-707-8200 \ Internet: www.ncdenr.gov

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cc: Van Burbach, Ph.D., P.G., Joyce Engineering
Jason Watkins, Field Operations Branch Head
Deb Aja, Western District Supervisor
Charles Gerstell, Environmental Senior Specialist
Solid Waste Central Files