

**Subject:** RE: JMN Methane detects  
**From:** "Hoffman, Ray" <HoffmanRJ@repsrv.com>  
**Date:** Wed, 1 Oct 2008 16:05:57 -0400  
**To:** "Larry Frost" <Larry.Frost@ncmail.net>  
**CC:** "Ervin Lane" <ervin.lane@ncmail.net>, "Charles Gerstell" <charles.gerstel@ncmail.net>

Not sure if you want/need a new letter for this...

If we uncover any waste during trenching operations, this waste will be loaded into open top containers and hauled to either the Cleveland County landfill or to our Foothills LF located in Caldwell County for disposal.

Soils will be stockpiled on site for future construction repairs in maintaining access roads and berms.

We will be updating our site environmental monitoring drawing over the next week and will submit that along with photos of the project and resampling results of the probes once completed.

We appreciate your assistance and support on this unexpected project.

-----Original Message-----

**From:** Larry Frost [mailto:Larry.Frost@ncmail.net]  
**Sent:** Tuesday, September 30, 2008 10:58 AM  
**To:** Hoffman, Ray  
**Cc:** Ervin Lane; Charles Gerstell  
**Subject:** Re: JMN Methane detects

Ray  
How about repackaging your letter which describes the work to be done, add a comment regarding any waste that might be uncovered where the waste will be disposed of, any drawings you might have and send it to me

(email me an electronic copy). I will send you an approval letter for the described work. This will keep the paperwork in order.  
Thanks  
Larry

Ervin Lane wrote:

Ray,  
I do not have any concerns with the proposed landfill gas corrective action.

Hoffman, Ray wrote:

Ervin,

See the attached letter regarding recent methane probe detects encountered at our closed, industrial landfill, located in Cleveland County. We are prepared to begin implementing corrective action as early as next week.

Call me if you have any questions, comments or concerns with our proposed plan.

Ray Hoffman, PE  
Area Engineer  
Republic Services of NC, LLC  
828-695-2055

Permit No.	Date	Document ID No.
23-02	October 3, 2008	5942

RECEIVED  
**October 2, 2008**  
Solid Waste Section  
Asheville Regional Office

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Larry Frost - Regional Engineer  
North Carolina Dept. of Environment and Natural Resources  
Asheville Regional Office  
Division of Waste Management - Solid Waste Section  
2090 U.S. 70 Highway  
Swannanoa, NC 28778  
Tel: 828-296-4500  
Fax: 828-299-7043  
[larry.frost@ncmail.net](mailto:larry.frost@ncmail.net)  
<http://wastenotnc.org/swhome>



**REPUBLIC**  
SERVICES OF NC, LLC



September 29, 2008

Department of Environment and Natural Resources  
Division of Waste Management  
Solid Waste Section  
401 Oberlin Road, Suite 150  
Raleigh, North Carolina 27605  
919-508-8520

Attention: Mr. Ervin Lane  
NCDENR - Hydrogeologist  
Raleigh Central Office

***Re: JMN Landfill, Cleveland County, North Carolina***  
***Quarterly Methane Boundary Probe Monitoring***

Dear Mr. Lane,

Republic Services of North Carolina, LLC (Republic) is reporting an exceedance of the concentration of methane gas, above the lower explosive limits. I have also placed a call and left a voice message for Charles Gerstell in your Mooresville Regional Office.

The monitoring event at the above-referenced facility was performed on September 19<sup>th</sup>, 2008 and rechecked on September 21, 2008. The probes in question are #3 and #4 which are not immediately adjacent to any offsite structures. All other probes on site had zero percent methane readings.

Methane probe #3 was first monitored on September 19<sup>th</sup>, 2008 at 4:20 pm with an initial methane concentration of 20.4% or 100% LEL. It was rechecked at 6:18 pm with a methane concentration of 0.0%.

Methane probe #4 was first monitored on September 19<sup>th</sup>, 2008 at 4:38 pm with an initial methane concentration of 7.5% or 100% LEL. It was rechecked at 6:20 pm with a methane concentration of 0.0%

Both probes were rechecked on September 21, 2008 with probe #3 having a methane concentration of 0.1% or 1% LEL and probe #4 having a methane concentration of 4.2% or 81% LEL.

These probes are located on the west side of the disposal facility, inside the chain link fence and adjacent to Roseborough Road. Probes were drilled to a depth of 15 feet. It is estimated that these probes are within 50 feet of the edge of waste.

Our closure permit letter directs us to follow post closure monitoring requirements of Rule .0503(2)(a) which only states that the facility shall not exceed the lower explosive limits (LEL) at the property boundary. We feel that Rule .1626 (4)(c) provides sufficient guidance for situations in which the LEL is exceeded and request to be allowed to follow this direction.

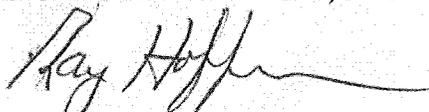
Please consider this letter as our seven day notification along with our reporting of the methane levels detected as mentioned on the previous page.

If acceptable to the Division, within 60 days we will install an interceptor trench, roughly 300 feet in length, 15-20 feet in depth and 3-5 feet in width. We will backfill this trench with either rock or tire chips along with a 4-inch perforated pipe for gas collection. This 4-inch pipe will be brought to the surface in 2 or 3 locations and allowed to vent. The backside and top of this trench may be lined with left over, 60-mil liner from our Foothills facility prior to backfilling to act as a solid barrier to prevent gas migration. We can begin this project as early as next week with your approval.

In addition, we will increase our monitoring frequency on these probes from a quarterly basis to monthly until we achieve two consecutive months of zero percent methane readings on Probes #3 and #4.

Please forward this request to your internal departments for approval. If you have any questions, please contact me at 828-695-2055.

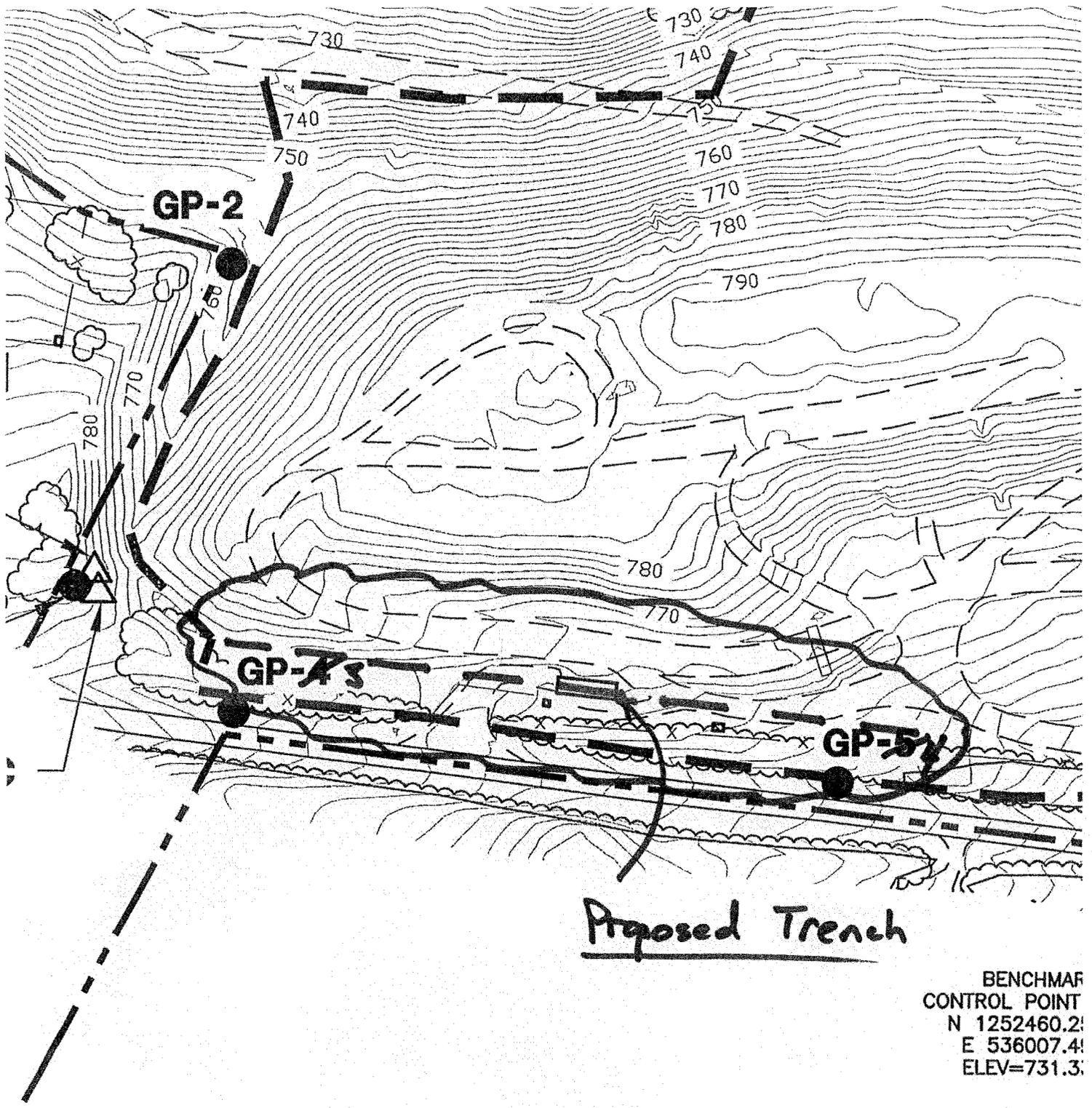
Sincerely,  
REPUBLIC SERVICES OF NC, LLC



Mr. Raymond J. Hoffman, P.E.  
Area Engineer

Enclosure

C: Charles Gerstell, NCDENR  
Drew Isenhour, Area President, Republic  
Tim Allen, General Manager, JMN Landfill  
Kris Carlson, P.E., Carlson Environmental



Proposed Trench

BENCHMARK  
CONTROL POINT  
N 1252460.2  
E 536007.4  
ELEV=731.3

NOTE:  
AERIAL TARGET NO. 1 (4'X4' CONCRETE PANEL) IS NOT SHOWN ON THIS SHEET. IT IS LOCATED AT THE FOLLOWING COORDINATES:  
N 1251444.150  
E 533665.540  
ELEV=604.310

N



North Carolina Department of Environment and Natural Resources

Dexter R. Matthews, Director

Division of Waste Management

Michael F. Easley, Governor  
William G. Ross Jr., Secretary

FACILITY PERMIT NO: 23-02  
Closure of INDUSTRIAL LANDFILL Unit  
Date: 26 September, 2005

STATE OF NORTH CAROLINA  
DEPARTMENT OF ENVIRONMENT AND NATURAL RESOURCES  
DIVISION OF WASTE MANAGEMENT  
1646 MAIL SERVICE CENTER; RALEIGH, N.C. 27699-1646

**INDUSTRIAL SOLID WASTE LANDFILL  
FACILITY**

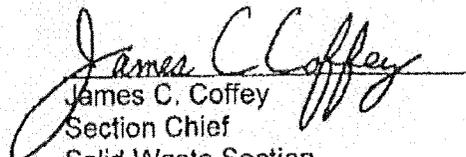
Republic Services of North Carolina, LLC, LANDOWNER

is hereby issued a

**LETTER OF CLOSURE**

for the JMN Landfill  
UNLINED INDUSTRIAL LANDFILL UNIT  
located on property recorded in # DEED BOOK: 14H PAGE: 701

located at 346 Roseborough Road in Grover, North Carolina in accordance  
with Article 9, Chapter 130A, of the General Statutes of North Carolina and all rules  
promulgated thereunder and subject to the conditions set forth in this letter of closure.

  
James C. Coffey  
Section Chief  
Solid Waste Section  
Division of Waste Management

1646 Mail Service Center, Raleigh, North Carolina 27699-1646  
Phone 919-733-4996 \ FAX 919-715-3605 \ Internet <http://wastenofnc.org>

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### POST CLOSURE CONDITIONS

1. **MANAGEMENT OF LANDFILL GAS:** The owner and/or operator shall take the measures necessary to ensure that the closed site shall continue to meet the design standards for landfill gas found in Rule .0503(2)(a).
2. **MANAGEMENT OF SURFACE WATER:** The owner and/or operator shall take the measures necessary to ensure that the closed site shall meet the requirements of Rule .0503(2)(c). In addition, the landfill unit shall be maintained such that surface water runoff occurs in a controlled manner, and surface water shall not be impounded over waste.
3. **AIR QUALITY:** The owner/operator shall ensure that landfill units do not violate any applicable requirements developed under a State Implementation Plan approved or promulgated by the U.S. EPA Administrator pursuant to Section 110 of the Clean Air Act, as amended.
4. **FINAL COVER SYSTEM:** The integrity and effectiveness of the final cover system and any permanent erosion control devices must be maintained. This could include making repairs to the cover as necessary to correct the effects of settlement, subsidence, erosion, or other events.
5. **PROPOSED USES:** The owner/operator shall submit a proposal for the Section's review and approval addressing post closure uses of the facility. Proposed post closure uses shall not violate any post closure conditions found in this letter. In particular, plans for post closure uses shall avoid possibilities for the entrapment of methane gas. Routine landfill gas monitoring within structures and at the facility boundary may not be sufficient to detect potentially dangerous situations.
6. **ONGOING SOLID WASTE MANAGEMENT ACTIVITIES:** Continuing solid waste management activities shall not violate any post closure conditions found in this letter, and must meet any other applicable requirements.
7. **RECORDATION:** The owner/operator shall ensure that the recordation requirements for land disposal sites found in Rule .0204 are met. Following closure of the unlined Industrial Landfill unit, the owner or operator shall record a notation on the deed to the landfill facility property, or some other instrument that is normally examined during title search, and notify the Division that the notation has been recorded and a copy has been placed in the operating record.

The notation on the deed shall in perpetuity notify any potential purchaser of the property that:

- (a) The property has a unlined landfill unit; and
- (b) Its use is restricted under the closure plan approved by the Division.

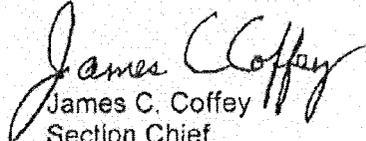
The attached certified copy of the closure letter shall be recorded by the Register of Deeds and indexed in the grantor index under the name of the landowner. The certified copy affixed with the Register's seal and the date, book, and page number of the recording shall be returned to the Solid Waste Section.

**8. WATER QUALITY MONITORING AND REPORTING REQUIREMENTS:**

- a. Groundwater quality at this facility is subject to the "Classification and Water Quality Standards Applicable to the Groundwaters of North Carolina," 15A NCAC 2L. This includes, but is not limited to, the provisions for detection monitoring, assessment, and corrective action.
- b. The permittee shall sample the detection monitoring wells and surface water sampling location(s) at a minimum on a semi-annual basis.
- c. Water quality detection monitoring shall continue for a minimum of five years from the date of the engineer's certification, indicating that the facility is closed. After five years the Sections will determine if further monitoring is to be required.
- d. Sampling equipment and methods shall conform to specifications in Attachment 1, "North Carolina Water Quality Monitoring Guidance Document for Solid Waste Facilities." The sampling parameters and methods shall be those found in Attachment 2, "Sampling and Analysis Requirements for Construction and Demolition Landfills and Closed Sanitary Landfills", or an alternate list of sampling parameters as approved by the Solid Waste Section.
- e. The permittee shall maintain a record of all monitoring events and analytical data. Reports of the sampling events and analytical data shall be submitted to the Section in a timely manner.

**CERTIFIED COPY OF CLOSURE LETTER**

I do hereby certify that the attached CLOSURE LETTER is an exact and true copy of the closure letter for the JMN Landfill, Unlined Landfill Unit, Permit Number 23-02.

  
James C. Coffey  
Section Chief  
Solid Waste Section  
Division of Waste Management

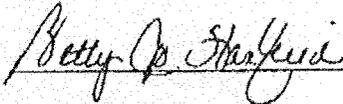
Wake County, North Carolina

I, Betty Jo STANFIELD, Notary Public for said County and State, do hereby certify that JAMES C. COFFEY, of the Solid Waste Section, personally appeared before me this day and acknowledged the due execution of the foregoing instrument.

Witness my hand and official seal,

this the 4 day of OCTOBER, 2005



  
NOTARY PUBLIC

My commission expires DECEMBER 29, ~~2005~~ 2009

**Note to Register of Deeds:** The certified copy of the closure letter shall be recorded by the Register of Deeds and indexed in the grantor index under the name of the land owner. The certified copy affixed with the Register's seal and the date, book, and page number of the recording shall be returned to Donald J. Barber, Division of Waste Management, Solid Waste Section, 1646 Mail Service Center, Raleigh, NC 27699-1646.