



FACILITY COMPLIANCE INSPECTION REPORT
Division of Waste Management
Solid Waste Section

UNIT TYPE:

Lined MSWLF		LCID		YW		Transfer		Compost		SLAS		COUNTY: AVERY PERMIT NO.: 06-01 FILE TYPE: COMPLIANCE
Closed MSWLF	X	HHW		White goods		Incineration		T&P		FIRM		
CDFL		Tire T&P / Collection		Tire Monofill		Industrial Landfill		DEMO		SDTF		

Date of Site Inspection: 1/24/2013, 10/11/2012

Date of Last Inspection: 9/30/2009

FACILITY NAME AND ADDRESS

Avery Co. C&D Landfill
 Brushy Creek Rd. (SR-1011)
 Spruce Pine, N.C.

GPS COORDINATES: (Decimal Degrees) N: 35.96116 E: -81.96983

FACILITY CONTACT NAME AND PHONE NUMBER:

Henry Norris – Avery County Solid Waste Director
 (828) 737-5420 (Solid Waste Office)
 Email: buddy.norris@averycountync.gov

Robert Wiseman – Avery County Manager
 (828) 733-8201
 Email: robert.wiseman@averycountync.gov

FACILITY CONTACT ADDRESS:

Avery County Solid Waste Department
 175 Lineville Street
 P.O. Box 640
 Newland, N.C. 28657

AUDIT PARTICIPANTS:

Deb Aja, Solid Waste Section

STATUS OF PERMIT:

Closed. Waste last accepted on October 8, 1993.

PURPOSE OF SITE VISIT:

Comprehensive Inspection.

STATUS OF PAST NOTED VIOLATIONS:

RESOLVED: VIOLATION OF 15A NCAC 13B .0510(c) [Notice of Violation Issued on 9/30/2009].

Avery County had not shown that any explosive gas monitoring had been performed at the closed municipal solid waste facility as required in the closure letter dated December 29, 1995, in violation of 15A NCAC 13B .0510(c). To be in compliance with 15A NCAC 13B .0510(c) Avery County was required to submit for review and approval a new permanent methane monitoring plan that would satisfy all conditions of Rule 15A NCAC 13B .0503(2)(a)(i) and (ii). The plan was received by the Section on February 1, 2010, and on February 19, 2010, the Section approved the plan.

FACILITY COMPLIANCE INSPECTION REPORT
Division of Waste Management
Solid Waste Section

Page 2 of 4

NOTED VIOLATIONS:

1. 15A NCAC 13B .0203 (d), which states: By receiving solid waste at a permitted facility, the permittee(s) shall be considered to have accepted the conditions of the permit and shall comply with conditions of the permit. The facility received a closure letter from the Solid Waste Section [Section] on December 29, 1995 which stated post closure conditions.

The closure letter Post Closure Condition 1 states: "MANAGEMENT OF LANDFILL GAS: The owners 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).

15A NCAC 13B .0503 Siting and Design Requirements for Disposal Sites,

(2) A site shall meet the following design requirements:

- (a) The concentration of explosive gases generated by the site shall not exceed:
 - (i) twenty-five percent of the limit for gases in site structures (excluding gas control or recovery system components); and
 - (ii) the lower explosive limit for the gases at the property boundary;

During routine monitoring events the concentration for explosive gases generated by the Avery County Closed MSW Landfill (the site) was found to exceed the lower explosive limit for the gases at the property boundary. Concentrations exceeding the lower explosive limit of explosive gases (methane) were measured at the property boundary in LFG wells P1, P3, P7, and an offsite well, P11. The concentrations of explosive gases consistently exceeded the lower explosive limit in wells P3 and P7 during monitoring events beginning in June, 2010, except that P3 was below the concentration limit in May, 2012, and June, 2012. The concentration of explosive gases consistently exceeded the lower explosive limit in well P1 during monitoring events beginning in March, 2011. The concentration of explosive gases consistently exceeded the lower explosive limit in well P11 during monitoring events beginning in November, 2011. Avery County is in violation of 15A NCAC 13B .0203(d) for failure to comply with conditions of their permit and 15A NCAC 13B .0503 (2)(a)(ii) for exceedances of the lower explosive limit for the gases at the property boundary.

In order to achieve compliance, Avery County must continue to work with Jaclynne Drummond, Compliance Hydrogeologist to address the landfill gas exceedances and implement measures in a plan approved by Ms. Drummond on November 15, 2012. Phase I of the plan was scheduled to be implemented within 60 days and is planned for implementation in March, 2013. Phase II, if required, must be implemented as approved by Ms. Drummond. If the plan, once implemented, does not reduce the methane in the wells than additional corrective measures will be required and additional compliance actions may be taken. Please also continue monthly landfill gas monitoring at the facility.

The item(s) listed above were observed by Section staff and require action on behalf of the facility in order to come into or maintain compliance with the Statutes, Rules, and/or other regulatory requirements applicable to this facility. Be advised that pursuant to N.C.G.S. 130A-22, an administrative penalty of up to \$15,000 per day may be assessed for each violation of the Solid Waste Laws, Regulations, Conditions of a Permit, or Order under Article 9 of Chapter 130A of the N.C. General Statutes. Further, the facility and/or all responsible parties may be subject to enforcement actions including penalties, injunction from operation of a solid waste management facility or a solid waste collection service and any such further relief as may be necessary to achieve compliance with the North Carolina Solid Waste Management Act and Rules.

ADDITIONAL COMMENTS

1. A gate was installed at the entrance to the facility and was locked to prevent unauthorized entry.
2. The landfill waste disposal area was clearly marked by edge-of-waste markers.
3. There was no evidence of ponded water on the landfill cap.
4. There was no evidence of any differential settling of the landfill cap.
5. No signs of surface erosion of the cap were observed.

FACILITY COMPLIANCE INSPECTION REPORT
Division of Waste Management
Solid Waste Section

6. The vegetation on the cap appeared to be generally well maintained, however, briars and woody vegetation established on berms throughout the landfill need to be cut.
7. The condensate tank appeared to be maintained and liquids in the tank appeared to be maintained at a level below the tank capacity.
8. Landfill Gas Extraction System and Flare: A landfill gas extraction system and flare is operated at the landfill. The Operations, Monitoring, and Maintenance Report submitted to the Section on January 18, 2013 stated that the new blower that was installed in October of 2012 had been removed and returned to the manufacturer for evaluation and was determined to be non-repairable. Phase I of the plan approved on November 15, 2012 includes an expansion of the system (installation of two landfill gas extraction wells), the installation of an isolation valve along the landfill gas header to isolate the southern landfill gas extraction wells, and the installation of a flare collar extension. Phase I will also include the installation of a new blower. Phase II of the expansion project will be reviewed when the effectiveness of Phase I is evaluated.
9. Landfill gas monitoring records were reviewed post on-site inspections. Landfill gas is monitored in accordance with the landfill gas monitoring plan approved on February 19, 2010, and subsequent approved revisions to the plan. Landfill gas monitoring wells P1 through P8 were installed in May, 2010. In monitoring events in June and September, 2010, exceedances of explosive gas limits were recorded in wells P3 and P7. An off-site investigation was conducted and a plan was submitted to the Section in November, 2010, that included the installation of 5 additional off-site wells. The new plan was approved in December, 2010, with requirements for monthly monitoring. In January, 2011, a mitigation plan (*Off-site Landfill Gas Mitigation Plan*) was submitted to the Section and was approved on February 10, 2011. Exceedances of the lower explosive limit of methane were recorded in wells P1, P3, and P7, on March 3, 2011, and in subsequent monthly monitoring events (with the exception of well P3 – May and June, 2012). Additional landfill gas wells P9 through P13 were installed on November 21, 2011. On November 22, 2011, an exceedance was first measured in well P11, and exceedances in this well have been consistently measured in subsequent monthly monitoring events. On November 15, 2012, the Section approved a phased plan to reduce levels of methane at property boundary wells and continued monthly monitoring. The plan was required to be implemented within 60 days. On January 15, 2013, a letter was submitted to the Section on behalf of the county by Smith Gardner, Inc., stating that approved upgrades to the LGCCS and installation of new extraction wells were planned in early February, 2013. Due to weather conditions this work is now planned for March, 2013.
10. Groundwater and landfill gas monitoring wells that were observed during one or both inspections are summarized in below:

Well ID	Well Label (Y/N)	Access to well & area around well properly maintained (Y/N)	Well locked (Y/N)	Well Damaged (Y/N)	Concrete Pad Damaged (Y/N)
Landfill Gas Well					
P1	Yes	Yes	Yes	No	No
P2	Yes	Yes	Yes	No	No
P3	Yes	Yes	Yes	No	No
P4	Yes	Yes	Yes	No	No
P5	Yes	Yes	Yes	No	No
P6	Yes	Yes	Yes	No	No
P7	Yes	Yes	Yes	No	No
P8	Yes	Yes	Yes	No	No
Groundwater Well					
MW1	Yes	Yes	Yes	No	No
MW3	Label missing the number "3". (10/11/12)	Yes	Yes	No	Pad not visible.

FACILITY COMPLIANCE INSPECTION REPORT
Division of Waste Management
Solid Waste Section

Page 4 of 4

11. Post Closure Condition 7 of the closure letter dated December 29, 1995 states: "RECORDATION: The owner shall ensure that the recordation requirements the land disposal sites found in Rule .0204 are met."

15A NCAC 13B .0204 RECORDATION OF LAND DISPOSAL PERMITS,

(a) Whenever the Division approves a permit for a sanitary landfill or a facility for the disposal of hazardous waste on land, the owner of the facility shall be granted both an original permit and a copy certified by the secretary or his authorized representative. The permit shall include a legal description of the site that would be sufficient as a description in an instrument of conveyance.

(b) The owner of a facility granted a permit for a sanitary landfill or a facility for the disposal of hazardous waste on land shall file the certified copy of the permit in the register of deeds' office in the county or counties in which the land is located.

(c) The register of deeds shall record the certified copy and index it in the grantor index under the name of the owner of the land.

Please provide documentation that the landfill permit was recorded in accordance with this rule.

Please contact me if you have any questions or concerns regarding this inspection report.



Deborah Aja
 Environmental Senior Specialist
Regional Representative
deborah.aja@ncdenr.gov

Phone: 828-296-4702
 Asheville Regional Office
 2090 US Hwy 70
 Swannanoa, NC 28778

Sent on March 15, 2013 to Robert Wiseman, County Manager, Avery County by:	X	Email: robert.wiseman@averycountync.gov		Hand delivery	X	US Mail	Certified No.
--	---	--	--	---------------	---	---------	---------------

EC: Mark Poindexter, Field Operations Branch Supervisor
 Jason Watkins, Western District Supervisor
 Jessica Montie, Compliance Officer
 Jaclynne Drummond, Compliance Hydrogeologist
 Henry Norris, Solid Waste Director – Avery County