North Carolina Department of Environment and Natural Resources
Division of Waste Management

Pat McCrory
Governor

Dexter R. Matthews
Director

John E. Skvarla, III
Secretary

STATE OF NORTH CAROLINA
DEPARTMENT OF ENVIRONMENT AND NATURAL RESOURCES
DIVISION OF WASTE MANAGEMENT
SOLID WASTE SECTION

PERMIT TO OPERATE A SEPTAGE LAND APPLICATION SITE

Hall's Septic Tank Cleaning Service
Emmett G. Hall
297 Durwood Evans Rd
Beulaville, NC 28518

is hereby permitted to operate Septage Land and Application Site with permit # **SLAS-31-11** located on Hwy 41 in Duplin County at approximate position 34.88464°N latitude and -77.78972°W longitude. This site is permitted only for operations that are conducted in accordance with the representations made in the approved application, with all conditions attached to this permit, and with all of the provisions of 15A NCAC 13B.0800 -- Septage Management. Failure to operate as permitted may result in the Department suspending or revoking this permit, initiating action to enjoin the unpermitted operation, imposing administrative penalties, or invoking any other remedy as provided in Chapter 130A, Article 1, Part 2 of the North Carolina General Statutes.

This permit shall be reviewed annually to determine if soil test results and management activities are in compliance with the Septage Management Rules and the conditions of this permit. Modifications, where necessary, shall be made in accordance with rules in effect at the time of review.

Date Issued 2/6/2013

Martin A. Gallagher, Branch Head
Composting & Land Application Branch

CONDITIONS OF OPERATING PERMIT

1. This permit shall become void if the soils fail to adequately assimilate the septage and shall be rescinded unless the site is maintained and operated in a manner which will protect the assigned water quality standards of both surface and ground waters.

2. This site shall be operated and maintained in accordance with the nutrient management plan submitted by Emmett G. Hall and approved by the Division of Waste Management. The 4.0-acre site shall be divided into two fields known as Field 1 (1.8 acres) and Field 2 (2.2 acres). The fields shall remain established in fescue. Areas where the fescue coverage falls below 80% shall be replanted at 15-20 lbs/ac, broadcasted, or 10-15 lbs/ac, drilled, during September. Fescue can also be planted during October or between February 15 and March 20. The fescue shall be cut as hay and baled whenever seed heads form. At least two harvests shall be made each year, one in May and one in October. The 30-day waiting period between the last application of septage and the harvest of a crop shall be met by rotating applications between Fields 1 and 2 or by using the permitted septage storage facility, SDTF-31-11. All discharges shall be at locations on the site consistent with the crop rotation in the approved plan.

3. This site shall be operated and maintained in accordance with the erosion and runoff control plan submitted by Emmett G. Hall in such a manner as to prevent the migration of wastes off of the designated waste receiving site. A 50-ft buffer planted in fescue shall remain around the perimeter of the permitted area. Any site improvements noted in the plan must be installed within 30 days of plan approval. The installation of groundwater monitoring wells shall be required as deemed necessary by the Division.

4. The issuance of this permit does not preclude the Permittee from complying with any and all statutes, rules, regulations, or ordinances that may be imposed by other local, state, and federal government agencies which have jurisdiction. It is the responsibility of the Permittee to be in compliance with the Federal Regulations listed in the Code of Federal Regulations, 40 CFR Part 503.

5. This permit may be modified or reissued at any time to incorporate any conditions, limitations, and / or monitoring requirements the Division deems necessary to adequately protect the environment and public health.

6. **This site is only permitted for the land application of domestic septage.** Domestic septage pH shall be raised to 12 or higher by alkali addition and, without the addition of additional alkali, shall remain at 12 or higher for 30 minutes prior to land application.

7. **This site contains approximately 4.0 acres that are available for land application of septage.** The maximum annual application rate shall be 50,000 gallons per acre per year, for a total, maximum annual application of 200,000 gallons. This application rate assumes equal septage distribution, on an annual basis, over the entire permitted area. Application amounts to the fields shall not exceed the maximum annual application rate or the monthly rates as listed in the approved nutrient management plan for the site.

8. An approved above ground septage detention system with a minimum design capacity of 5,000 gallons shall be available prior to operation of this site unless an approved wastewater treatment plant is available for use during periods of adverse weather. The storage capacity may be adjusted if it is demonstrated during the operation of the site that this volume of storage is inappropriate.

9. Only the area designated on the attached site map(s) shall be utilized for septage disposal. Each load of septage discharged at the site shall be distributed from a moving vehicle in such a manner that there is no standing water when the discharge is complete.

10. Septage shall not be applied during any precipitation event, or if there is standing water on the soil surface, if the soil surface is frozen, or if the soil surface is snow covered. The Permittee shall consider pending weather conditions when making the decision to land apply in order to prevent any discharge of septage outside of the permitted boundary.

11. Septage shall not be applied during periods of high soil moisture. Septage applications that will result in ruts greater than three inches in the soil surface are prohibited.

12. Any discharge of septage outside of the permitted boundaries via runoff, aerial drift, etc. is prohibited.

13. This permit shall become voidable unless the land application activities are carried out in accordance with the conditions of this permit and in the manner approved by this Division. No one other than the Permittee or an employee of the firm named in this permit shall discharge septage at this site without prior appropriate notification and written approval from the Division.

14. Prior to any transfer of this land, a notice shall be given to the new owner that gives full details of the materials applied or incorporated at this site. The Division shall be notified prior to site closure. This permit is non-transferable.

15. **This permit shall expire on February 4, 2017.** Modifications, when necessary, shall be made in accordance with the rules in effect at the time of renewal. An application for permit renewal shall be submitted at least ninety (90) days prior to the permit renewal date. A septage application log for the period of time this permit was valid shall be submitted along with an application for permit renewal or modification. The information required in the log is described in Rule 15A NCAC 13B .0838 (e) (1) of the NC Septage Management Rules and the Code of Federal Regulations, 40 CFR Part 503.17 (b).

16. Records shall be kept in accordance with 40 CFR 503.17(b). These records shall be made available to a representative of the Division upon request.

17. Any duly authorized officer, employee, or representative of the Division may, upon presentation of credentials, enter and inspect any property, premises, or place on or related to the disposal site and facility at any reasonable time for the purpose of determining compliance with this permit; may inspect or copy any records that must be kept under the conditions of this permit; or may obtain samples of groundwater, surface water, or leachate.

18. Field separations in the nutrient management plan and all pertinent setbacks shall be clearly located on the site. Boundaries of the permitted septage land application fields shall be clearly marked on the ground.

19. The areas that can be used for land application of septage shall be maintained at least 500 feet from any existing wells, residences, places of business, or places of public assembly. Septage shall not be disposed of within 50 feet of any property line or within 100 feet of any ditch.

SDTF SLAS 31-10
SDTF SLAS 31-09
SLAS 31-11
SLAS Back 31-12
Beulaville
Hallsville
Sarecta
Cabin
Jacksons Store
Catherine Square
Lyman
Fountaintown
Fountain Airport
Albert J Ellis Airport
Lee Baysden Pond
Chinquapin
Chinquapin Lookout
Maready
Sloan
Sholars Crossroads
Pin Hook
Gurganus
Hargetts Store
Jarmantown
Haw Branch
Hadley
Quinns Store
Stephens
Cedar Fork
Landing Strip
Radio Tower
Substation
Gaging Station
Jenkins Pond
Flying W Airfield
Potters Hill
Limestone Quarry
Leon
Northeast
Cape Fear River
Maple Creek
Cypress Creek
Nine Mile Creek
Beauerdam Creek
Tuckahoe Swamp
Great Branch
Little Limestone Creek
Whiteoak Branch
Gum Branch
Cabin Creek
Ponther Creek
Muddy Creek
Big Branch
Stephens Creek
Haw Branch
Cypress Creek
Back Swamp
Futrell Swamp
Quinn Swamp
Cedar Fork Swamp
Pickett Bay Swamp
Cypress Creek
DUPLIN CO
JONES CO
LENOIR CO
ONSLOW CO

SLAS-31-11

Source: Bing Maps aerial imagery, ESRI, (c) 2010 Microsoft Corporation and its data suppliers; site boundary, NC DENR Division of Waste Management.

Map created by NC DENR Division of Waste Management, Compost and Land Application Branch for permitting purposes only.

crc, Jan. 2013

NCDENR
North Carolina Department of Environment and Natural Resources
Division of Waste Management

Pat McCrory
Governor

Dexter R. Matthews
Director

John E. Skvarla, III
Secretary

March 5, 2013

Mr. Emmett G. Hall
Hall's Septic Tank Cleaning Service
297 Durwood Evans Road
Beulaville, NC 28518

RE: SLAS-31-11 permit renewal
Hall's Septic Tank Cleaning Service
Hwy 41 in Duplin County

Dear Mr. Hall:

The NC Division of Waste Management has reviewed your application to renew Septage Land Application Site Permit, **SLAS-31-11**, in Duplin County. Your application to operate a Septage Land Application Site has been approved in accordance with NC Septage Management Rules and your permit, **SLAS-31-11**, is enclosed. Please read all permit conditions carefully. The nutrient management and soil erosion and runoff control plans you submitted have been incorporated into your permit. In particular, pay close attention to **Permit Conditions 2, 6, 7, 10, 11, 12, and 15**. The following is a summation of those Conditions.

- **Condition 2.** This condition lists the sizes of each field and crop management details listed in the submitted nutrient management plan.
- **Condition 6.** States that this site is only permitted to receive domestic septage. Disposal of any other type of waste at this site is prohibited.
- **Condition 7.** States that there are approximately 4.0 acres available at this site for the land application of septage. **The maximum annual application rate for this site is 50,000 gallons per acre per year for a total, maximum annual application of 200,000 gallons.** These rates along with the monthly rates listed in the nutrient management plan are not to be exceeded.

CONTINUE ON BACK

1646 Mail Service Center, Raleigh, North Carolina 27699-1646
Phone: 919-707-8200 Internet: http://portal.ncdenr.org/web/wm/sw

An Equal Opportunity \ Affirmative Action Employer

- **Condition 10.** Septage shall only be applied when soil and weather conditions are favorable for application.
- **Condition 11.** Soil conditions must be monitored such that any septage application will not result in ruts greater than three inches in the soil surface.
- **Condition 12.** Any discharge, including aerial drift, of septage outside of the permitted boundaries is prohibited.
- **Condition 15. This permit is set to expire on February 4, 2017.** Ninety (90) days prior to the expiration of your permit, you must submit an application for permit renewal along with your septage land application logs for the entire time your current permit was valid.

Again, please pay close attention to all of the conditions within the enclosed permit. Remember that violations to the NC Septage Management Rules or this permit could subject you to administrative penalties of up to $15,000 per violation per day. If you have any questions concerning your permits or septage in general, please do not hesitate to contact me at (919) 707-8283. When communicating to the Division about this permit, please refer to it as **"SLAS-31-11"**

Sincerely,

Chester R. Cobb

Chester R. Cobb, Soil Scientist
Composting & Land Application Branch

Enclosures
cc: Central File
Will Burke, Environmental Senior Specialist
Duplin County Health Department

S:Solid_Waste\cla\septage\slasper\31-Duplin\Hall\3111cl13p.docx

APPLICATION FOR A PERMIT TO OPERATE A SEPTAGE LAND APPLICATION SITE

North Carolina Department of Environment and Natural Resources
Division of Waste Management – Solid Waste Section
1646 Mail Service Center, Raleigh, NC 27699-1646

I. Site and Operator Information

1. Applicant Halls Septic Tank Cleaning Service
   Address 297 Durwood Evans Rd
   Beulaville N.C.
   Phone 910-298-5750

2. Contact person for site operation (if different from applicant): _____
   Title or position _____ Phone _____
   Address _____

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3. Landowner Same
   Address _____

4. Site Location: County Duplin State Road Number Hwy 41
   Directions to site: Head south on Hwy 41 and Hwy 111 for about 3 miles from Beulaville

5. Indicate whether request is: new _____ renewal _____ modification X

   For a permit renewal or modification, provide the following information:
   Existing site permit number: SLAS-3411 permit expiration date: 5-22-12

6. Number of acres meeting the requirements of the N.C. Septage Management Rules: 5 acres.

7. Substances other than septage or grease trap pumpings previously disposed of on the site:
   (a) None Y, or (b) Attach a list indicating other substances, the amounts discharged, and the dates of discharge.

8. Attach written, notarized landowner authorization to operate a septage disposal site signed by the landowner (if the permit applicant does not own the property). ***If a corporation owns the land use a corporate landowner authorization form. If limited liability company owns the land, use a limited liability company landowner authorization form.***

9. Attach site evaluation report, including aerial photograph and soil analysis with metals results, unless the Division prepared the report.

10. Attach a vicinity map (county road map showing site location).

(over)

II. Site Management Information:

The following information shall be included with the application form:

1. Nutrient Management Plan
2. Soil Erosion and Runoff Control Plan

3. Alternative plan for disposal (detention facility permit number or wastewater treatment plant authorization): SDTF-31-11

4. Types of septage proposed to be discharged at the site (check all that apply):
   (a) Domestic septage pumped from septic tanks X
   (b) Grease trap pumpings_____
   (c) Portable toilet waste_____
   (d) Commercial / Industrial septage_____

5. Proposed treatment method of each type of septage to be land applied (use additional paper to explain if necessary): The domestic septage will be raised to a pH of 12 or higher by the addition of hydrated lime and stabilized at ph 12 or higher for at least 30min prior to land application.

6. Proposed method of applying septage to land, including septage distribution plan if required * (use additional paper to explain if necessary): Septage will be spread evenly across the field from a moving pump truck such as to no pondind of septage on the ground surface

7. Demonstration from the appropriate state or federal government agency that the land application site complies with the Endangered Species Law ** or if any part of the site specified is not agricultural land (use additional paper to explain if necessary): Site is agricultural land

III. Certification

I hereby certify that:

1. The information provided on this application is true, complete, and correct to the best of my knowledge.
2. I have read and understand the N.C. Septage Management Rules, and
3. I am aware of the potential consequences, including penalties and permit revocation, for failing to follow all applicable rules and the conditions of a Septage Land Application Site permit.

Emmett G. Hall — Signature***

1-13-11 — Date

Emmett G. Hall — Print name

Hall's Septic Tank Cleaning Service — Title

Note: This application will not be reviewed until all parts of the application are complete.
*** Refer to Section .0837(e) of the N.C. Septage Management Rules.**
**** Refer to Section .0837(g) of the N.C. Septage Management Rules.**
*****Signature of company official required.**

SEPTAGE PLAN FOR EMMETT HALL
Fescue Hay

A. General Information:

1. Periodic sampling (at least once/year) of the septage will be conducted for waste analysis. (optional)

2. Field 1 contains approximately ~~4.58~~ 1.8 acres and Field 2 contains approximately ~~4.52~~ 2.2 acres. The attached copy of the aerial photograph for the site shows field boundaries and identifications.

3. The dominant soil series on the site is Foreston loamy sand.

4. Septage will not be applied where the site is untrafficable (untrafficable is defined as soil that will allow a loaded truck to leave a depression in sod greater than 3 inches in depth).

5. All nitrogen recommendations for forages will be 75% of the realistic yield expectation nitrogen rate should the forage be grazed.

6. Septage storage shall be provided to account for the average volume of septage pumped per week, or an alternative plan, such as disposal at a waste treatment plant, should be in place.

B. Crops to be grown and approximate planting times:

1. Field 1 will be maintained in tall fescue grass in the application field and in the buffer zones. (Field 1 as referred to in this nutrient management plan matches Field 4 on the Duplin County FSA map). If areas exist where the fescue coverage is less than 80%, then this area should be reseeded. Reseeding can be overseeded at a rate of 15-20 lbs of seed/acre or drilled at a rate of 10-15 lbs of seed/acre. The optimum planting time is during September. Alternative seeding dates include the month of October or between February 15 and March 20. To promote stand establishment the following steps will be taken the first year (weed control/reduced number of harvests/reduced vehicular traffic, etc): Avoid mowing fescue lower than 4-6 inches. Weeds are best controlled when they are 4 inches tall or shorter. Mowing will give some temporary weed control, in general.

2. Field 2 will be treated the same as Field 1. (Field 2 as referred to in this nutrient management plan matches Field 2 on the Duplin County FSA map).

C. Nitrogen needs for crops grown:

RYE = Realistic Yield Expectations
N App. Rate + Suggested N application rate based on RYE for soil type.

Crop (hay)	RYE	N App. Rate	lbs N/acre
Tall fescue	4.5 tons/acre x	45.6 lbs N/dry ton	= 205.2
		Total =	205.2

D. Relative application rates for Fields 1 and 2:

Month	Field 1	Field 2
January	Low	Low
February	Low	Low
March	Medium	Medium
April	High	High
May	Medium	Medium
June	Low	Low
July	Low	Low
August	Low	Low
September	Low	Low
October	Medium	Medium
November	Low	Low
December	Low	Low

None = 0 gallons; Low = 5,000 gallons
Medium = 10,000 gallons; High = 15,000 gallons

NOTE: Cumulative application rate is not to exceed the permitted application rate. Annual application rate is not to exceed 50,000 gallons per acre.

E. Application Method

The preceding information is based on septage being evenly applied over the entire permitted site.

F. Additional Fertility Requirements

1. Phosphorus and potassium will be added in accordance with the soil test results for the crops grown. This will require the addition of commercial fertilizers containing these nutrients. NOTE: If a septage analysis is available, the phosphorus fertilizer requirement can be reduced by accounting for the amount of phosphorus in the septage.

2. Additional nitrogen should be applied from commercial fertilizer so that total nitrogen rates meet the RYE rates previously listed in the table above.

3. Nitrogen, phosphorus, and potassium applied in the septage should be subtracted from the total nutrient needs to determine the proper commercial fertilizer rates.

4. Lime stabilization of the septage will effectively increase soil pH over time. Therefore, application of additional lime is not suggested as this time. However, soil magnesium levels should be monitored to insure that levels are adequate for plant nutrition. If additional magnesium is required it should be blended in the commercial fertilizer.

5. The buffer areas should be fertilized with commercial fertilizer based on soil analysis and in accordance with realistic yield expectations.

G. Pest Management:

If pest problems arise from plant pathogens, insects, or weeds, these pests should be managed in accordance with the recommendations of North Carolina Cooperative Extension. Assistance is available from Cooperative Extension in Duplin County at (910) 296-2143.

H. Harvest of the crops and their use:

1. The tall fescue will be cut as hay and baled whenever seed heads form. This will likely result in two harvests per year, one in May and one in October.

2. A 30-day waiting period must be observed between the last application of septage and harvest.

3. The hay will be utilized by a local farmer for livestock feed.

SOIL EROSION AND RUNOFF CONTROL PLAN

Given that slopes on this site do not exceed five percent, a 50 foot buffer, planted in tall fescue, should suffice to prevent septage waste from migrating off of the fields. The buffer zones will receive fertilization only from commercial fertilizers. Nitrogen should be applied in these areas based on realistic yield expectations (see Section C). Lime, phosphorus, potassium, and other nutrients will be applied in accordance with soil test recommendations in the borders of both fields. (More severe site conditions could require that soil erosion structures be installed before septage can be applied).

Buffer areas should be seeded and managed in the same manner as the remainder of the application fields with the exception of the fertilization as mentioned in the previous paragraph. Please refer to sections B, C, G, and H for appropriate crop management in the buffer areas.

Submitted by: Emmett G. Hall Date: 11-18-08
Site Operator
Emmett G. Hall 1-26-13

Plan prepared by: James Parsons Date: 6/30/08

Address: P. O. Box 949
Kenansville, NC 28349
Phone: 910-296-2143

h:\cla\septage\forms\nmp\bermuda_01.doc

SLAS-31-11

			2009					
	Septage	Grease	PTW	Field 1	Field 2	Field 3	Field 4	
January				2,000	1,000			L
February				5,800				L
March				5,800	1,000			M
April					5,800			H
May					1,000			M
June					2,900			L
July					2,900			L
August					4,500			L
September					1,800			L
October				2,700				M
November				4,700				L
December				3,700				L
TOTAL	0	0	0	24,700	20,900	0	0	
			0				45,600	

			2010					
	Septage	Grease	PTW	Field 1	Field 2	Field 3	Field 4	
January				5,500				L
February				3,800				L
March				8,100				M
April					10,200			H
May					3,800			M
June					5,800			L
July					5,500			L
August					3,700			L
September					1,900			L
October				1,800				M
November				7,900				L
December				5,700				L
TOTAL	0	0	0	32,800	30,900	0	0	
			0				63,700	

			2011					
	Septage	Grease	PTW	Field 1	Field 2	Field 3	Field 4	
January				6,500				L
February				7,600				L
March				5,700				M
April					4,700			H
May					1,900			M
June					4,700			L
July					2,800			L
August					4,700			L
September					6,500			L
October				6,700				M
November				6,600				L
December				11,300				L
TOTAL	0	0	0	44,400	25,300	0	0	
			0				69,700	

			2012					
	Septage	Grease	PTW	Field 1	Field 2	Field 3	Field 4	
January				8,600				L
February				10,500				L
March				8,400				M
April				2,700	1,900			H
May					2,000			M
June					6,700			L
July					1,000			L
August					2,000			L
September					3,900			L
October				4,700				M
November				11,400				L
December				5,700				L
TOTAL	0	0	0	52,000	17,500	0	0	
			0				69,500	

4.0 acre site	@	50,000 gal/ac/yr		203,000	gal/yr
	Field 1	Field 2	Field 3	Field 4	Site
ACRES	1.85	2.21	0	0	4.06
low	9,250	11,050	0	0	
medium	18,500	22,100	0	0	
high	27,750	33,150	0	0	
Max. Amount	92,500	110,500	0	0	203,000
		Monthly Rate			
None					
Low	5,000				
Medium	10,000				
High	15,000				

Septage Land Application Log Cover Sheet

Site Operator: Hall's Septic Tank Cleaning Service
SLAS Permit #: 0 31-11
Site Location : Highway 41 Beulaville N.C. 28518
(street address for the site **or** latitude and longitude)
Number of acres permitted: 5 acres
Permitted application rate: 50,000
(gallons septage per acre per year)
Crop(s) : Fescue
Crop nitrogen requirement(s): 100 pounds per acre
(pounds nitrogen per acre)

CERTIFICATION:
"I certify, under penalty of law, that the pathogen requirements in (insert either 503.32 (c)(1) or 503.32 (c)(2)) and the vector attraction reduction requirements in (insert 503.33 (b)(9), 503.33 (b)(10) or 503.33 (b)(12)) have been met. This determination has been made under my direction and supervision in accordance with the system designed to ensure that qualified personnel properly gather and evaluate the information used to determine that the pathogen requirements and vector attraction reduction requirements have been met. I am aware that there are significant penalties for false certification including the possibility of fine and imprisonment."

Emmett C. Hall
(signature)

1-13-12
(date)