

Cumberland Co. 26-02

1995

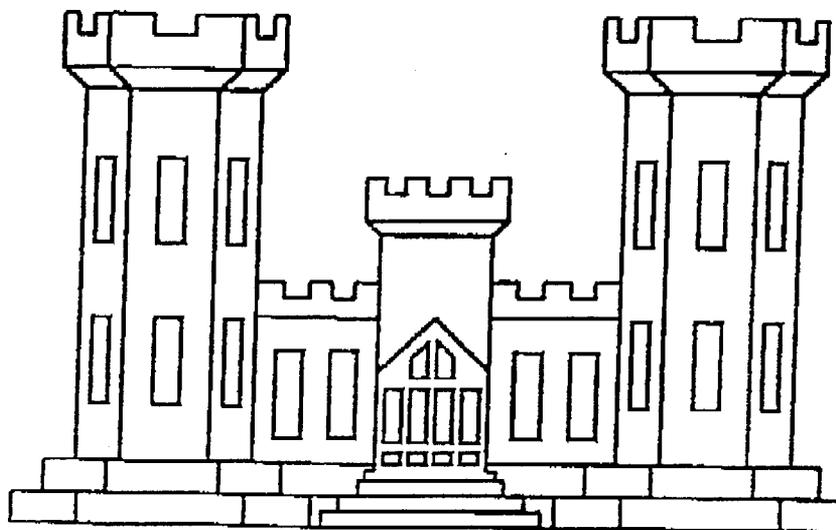
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DIRECTORATE OF PUBLIC WORKS AND ENVIRONMENT

FORT BRAGG, N.C.



FROM: <i>George Whitley</i>	OFFICE SYMBOL:	PHONE#: (910) 396-3702
		FAX#: (910) 396-1725
TO: <i>Bobby Lutfy</i>	OFFICE SYMBOL:	PHONE#:
		FAX#: (919) 733-4810
DATE/TIME RELEASED: <i>14 Dec 95 10:10</i>		APPROVAL:
CLASSIFICATION:		
REMARKS:	#PAGES: HEADER + 3	PRECEDENCE:

The first sheet shows general status of our transition plan + estimated dates of completion.

The 2nd + 3rd sheets were written by Bill Squire in our Environmental Branch and explain projects + overall approach to closing the MSWLF by the end of 1997.

Call if you have questions.

FOLLOWING IS THE STATUS OF FORT BRAGG'S TRANSITION PLAN & THE PROJECTS NECESSARY TO COMPLETE IT:

FW 00742-4: TRANSITION PLAN -

FW 74301-4: INSTALL GAS MONITORING WELLS - COMPLETION DATE WAS NOV 28. RS&H WILL FORWARD FINAL REPORTS, ETC., TO DEHNR AND INCORPORATE INTO TRANSITION PLAN.

FW 00808-4: DESIGN & CONSTRUCT GROUNDWATER MONITORING WELLS - COMPLETION DATE WAS NOV 2. RS&H WILL FORWARD FINAL REPORTS, ETC., TO DEHNR AND INCORPORATE INTO TRANSITION PLAN.

FW 00803-4: LANDFILL CAP - TENTATIVE PRE-DESIGN MEETING SCHEDULED FOR JAN 96, TO INCLUDE PASSIVE GAS VENTING. DESIGN SHOULD BE COMPLETED BY RS&H, INCORPORATED INTO THE TRANSITION PLAN, AND SUBMITTED TO DEHNR FOR APPROVAL BY EARLY APRIL.

RE-PERMIT MSWLF - CURRENT BOUNDARY ON PERMIT IS IN ERROR AND NEEDS TO BE SURVEYED AND RE-PERMITTED. TENTATIVE PRE-DESIGN MEETING SCHEDULED FOR JAN 96; COMPLETION APPROXIMATELY APRIL 96.

RE-PERMIT LCID - CURRENT BOUNDARY ON PERMIT IS IN ERROR AND NEEDS TO BE SURVEYED AND RE-PERMITTED. TENTATIVE PRE-DESIGN MEETING SCHEDULED FOR JAN 96; COMPLETION APPROXIMATELY APRIL 96.

SET GRADE STAKES AT MSWLF, EVERY 3 MONTHS, TO MONITOR UNTIL IT IS CLOSED & CAPPED. TENTATIVE PRE-DESIGN MEETING SCHEDULED FOR JAN 96. SURVEY WILL CONTINUE UNTIL CLOSING THE MSWLF IN LATE 1997.

AFZA-PW-DV
8 Dec 95

INFORMATION PAPER

SUBJECT: Fort Bragg Solid Waste Strategy

1. Purpose. To acquaint Command and staff on the installation's solid waste goals.

2. Facts.

a. Fort Bragg patterns its planning on complying with HQDA policy (to dispose of waste on a regional basis and to manage waste in the most cost-effective manner) and complying with EPA guidance (to respect the environment by following an integrated solid waste strategy):

- * to reduce at the source,
- * to recycle or reuse materials,
- * to incinerate waste for energy, and
- * to landfill as a last alternative.

b. Plans are to close the municipal solid waste (MSW) landfill (MSWLF) prior to 1998 to avoid expensive new MSWLF protection requirements and to dispose of MSW refuse to a regional disposal corporation (Vedco Corporation's BCH Energy Corporation) which recovers recyclables (at the Cumberland County site) prior to incinerating refuse for steam and electricity (at the Dupont plant in Bladen County).

c. Fort Bragg will build and operate a waste transfer station at the remaining land clearing and inert debris (LCID) landfill site on Lamont Road. It will remove those items which the regional disposal corporation will not accept (such as concertina wire, heavy metals, timber, yard waste, demolition materials, appliances, scrap metal, tires, and hazardous waste) and dispose of them through more cost-effective means.

d. The station also offers a capability to recycle if economic analyses proves to be more cost-effective than regional disposal. The resultant waste will be consolidated into transfer trucks for efficient hauling to the regional disposal facility.

e. Recycling will target those materials and methods which generate a profit. Analyses favor the creation of buyback and dropoff sites or co-location with a waste transfer station; rather than collection routes or curbside collections.

Bill Squire/6-3372

AFZA-PW-DV

SUBJECT: Fort Bragg Solid Waste Strategy

Specific Contract Plans

1. Engineering Division, DPWE is preparing specifications and statements of work to procure a regional disposal contract and to construct and operate a waste transfer facility during FY96.

2. They will also seek a State permit for a demolition landfill adjacent to the proposed waste transfer station and existing land clearing and inert debris (LCID) landfill. It will accomodate waste from barracks demolition, lead-based painted and treated woods, and asbestos.

3. They will then procure a contract to close out the existing MSWLF on Longstreet Road by installing a water-tight cover, methane gas control, erosion control, and landfill cover; at a cost of approximately \$6 million.

4. Approximately 140 tons per day of MSW will be disposed of to the regional disposal facility at a cost of approximately \$40 per ton plus another \$5 per ton for transfer and sorting costs. Annual total approximately \$1.6 million. In addition it will cost \$300,000 for a transfer station.

5. The 140 tons per day of MSW is the sum (after sorting at the transfer station) of housing from Fort Bragg (28 tons), housing from PAFB (2 tons), troop refuse from dumpsters at Fort Bragg (67 tons), troop refuse from PAFB (5 tons), and refuse disposed of at the landfill by troop units, contractors, rolloff containers, and government vehicles (38 tons).

6. The LCID landfill disposes of a range of 100-600 tons per day of lawn and yard waste, limbs, bushes, trees, stumps, logs, etc. plus inert debris such as land clearing soil and concrete, brick, cinder block, glass, and stone rubble. It costs approximately \$5 per ton for disposal of land clearing and inert debris.

5. A new demolition landfill will cost approximately \$200,000 to permit, and \$10 per ton to operate. It will dispose of a range of 20-200 tons per day of demolition debris such as lead-painted or treated woods mixed with metals and rubble.

Summary of:	Fixed Costs	Variable Costs
Collection costs/year		\$1.0M
Operate MSWLF/year til FY98		\$0.3M
MSWLF close out FY98	\$6.0M	
Regional Disposal MSW/year		\$1.6M
Waste transfer station		\$0.3M
Operate LCID/year		\$0.2M
Permit a demolition landfill	\$0.2M	
Operate Demolition ldfl/year		\$0.25

State of North Carolina
Department of Environment,
Health and Natural Resources
Division of Solid Waste Management

James B. Hunt, Jr., Governor
Jonathan B. Howes, Secretary
William L. Meyer, Director



May 30, 1995

Mr. Michael J. Ackerman
Chief, Environmental Branch
AFZA-DW-DV
Fort Bragg, N.C. 28307

RE: Hydrogeologic Review Of The Transition Plan For The Fort
Bragg MSWLF Landfill (Permit # 26-02)

Dear Mr. Ackerman,

The Solid Waste Section Hydrogeologic Unit has reviewed the Local Area Study and Water Quality Monitoring Plan portions of the Transition Plan for the Fort Bragg Landfill. There appear to be a few errors and omissions in these portions of the Transition Plan. Please address the following questions and comments:

LOCAL AREA STUDY

- Although the narrative portion for the Local Area Study is fairly thorough, no Local Area Study Map has been provided at a scale of 1 in. equals 400 feet as required by Rule .1629(b)(2)(A). A map of this scale is required to illustrate the items in (i) through (v) of this Rule. If any of these items are not found in the study area, this should be noted in the margin of the map. The public water supply utility should be identified on the Local Area Study Map.
- The exact location of the nearest public surface water supply intake needs to be identified on one of the maps for the facility.

WATER QUALITY MONITORING PLAN

- Where is the nearest public surface water supply intake located? In the Local Area Study it is said to be 4000 feet from the landfill, however in the Background section of the Ground-water and Surface-water Monitoring Plan, it states: "The nearest drinking water source is 2.5 miles distant on the Little River".

- The proposed monitoring plan needs to be amended consistent with the conditions in the Interim Review letter of July 29, 1994, to Mr. Steve McMull, Environmental Branch, Fort Bragg.
- New monitoring wells should be installed with two inch inside diameter casings and screens, not four inch.

SAMPLING AND ANALYSIS PLAN (SAP)

- All water quality samples are to be for the Appendix I constituents referenced in Rule .1633(a), not the old landfill parameter list of constituents.
- The current guidelines of the Solid Waste Section, as referenced in the June 24, 1994, memo to MSWLF Owners and Operators, require laboratory certification for groundwater analysis (by DEM), rather than for "drinking water" analysis.
- Figures 1 and 2, the Monitoring Well Schematic Diagrams, should be modified to reflect 2 inch casings, and a protective concrete collar.
- Figure 3 needs to be modified to reflect the well locations approved in the Interim Review letter of July 29, 1994, previously referenced.
- The scale needs to be indicated on Figures 3 and 4.

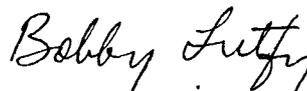
As of this date the upgrade of the monitoring system has not been completed, nor has the baseline sampling been done. The monitoring system was required to be upgraded and the initial sampling episode completed by October 9, 1994. The baseline sampling report for all four sampling episodes was due by April 9, 1995. At this time Fort Bragg is out of compliance with the Solid Waste Management Rules for water quality monitoring. It is my understanding that Fort Bragg is in the process of installing new wells at this time.

Michael Ackerman
Fort Bragg Transition Plan
Page 3

SAMPLING REPORT FOR THE JANUARY 1995 SAMPLING EVENT: Incorrect analytical methods and detection limits were used for some of the constituents. Please ensure that future sampling and analysis is done consistent with the Solid Waste Management Rules and guidelines. Reference specifically the June 24, 1994, and January 18, 1995, Memos to MSWLF Owners and Operators.

If representatives of Fort Bragg or their consultants have any questions or comments regarding this letter, please contact me at (919) 733-0692, extension 258. Revisions to the Transition Plan should be submitted within the next 45 days. Thank you for your assistance in providing the additional information and clarifications to the items addressed in this letter.

Sincerely,



Bobby Lutfy
Hydrogeologist
Solid Waste Section

cc: Susan Wright, SWS Raleigh
Keith Broderick, RS&H

State of North Carolina
Department of Environment,
Health and Natural Resources
Division of Solid Waste Management

James B. Hunt, Jr., Governor
Jonathan B. Howes, Secretary
William L. Meyer, Director



May 26, 1995

Mr. Richard Rust
Environmental Consultant
5641 Piper Drive
Fuquay, N.C. 27526

RE: Authorization To Construct Ground-water Monitoring Wells At
The Fort Bragg MSWLF Landfill (Permit # 26-02)

Dear Mr. Rust,

The Solid Waste Section authorizes you to proceed with the installation of the ground-water monitoring wells at the Fort Bragg MSWLF Landfill according to the following conditions:

1. The monitoring wells are to be constructed according to the specifications in the North Carolina Well Construction Standards (15A NCAC 2C .0108).
2. The monitoring wells are to be constructed according to the specifications in the "North Carolina Water Quality Monitoring Guidance Document For Solid Waste Facilities". The new wells are to be installed with two inch inside diameter casings and screens.
3. The monitoring wells are to be installed in accordance with the conditions of the July 29, 1994, letter from the Solid Waste Section to Mr. Steve McMull, Environmental Branch, Fort Bragg.
4. The proposed monitoring well locations as indicated on your submitted drawing (Drawing Number DPWE-5241) appear to be too far from the waste boundary. **All monitoring wells (other than the background well) are to be located no more than 100 to 150 feet from the landfill waste boundary.**

5. The Solid Waste Section does not require both laboratory and in-situ testing for hydraulic conductivity, although we do not object to doing both. In-situ hydraulic conductivity testing is preferred to establish horizontal conductivity conditions.
6. Current policy requires the analytical work to be done by a laboratory certified by DEM for groundwater analysis for the methods outlined in the June 24, 1994, and January 18, 1995, memos from the Solid Waste Section to MSWLF Owners and Operators. CompuChem is certified for low-level metals analysis and volatile organic analysis using SW-846 methods. Trace ICP methods may be used for low-level metals analysis if the laboratory has been certified by DEM for use of this equipment for low-level metals analysis.
7. The Solid Waste Section also authorizes you to proceed with abandonment of the dry wells and existing monitoring wells upon completion of the new monitoring wells. These wells are to be abandoned according to the rules for permanent well abandonment, 15A NCAC 2C .0113 (a) (2).

If you have any questions or comments regarding this conditional authorization to install monitoring wells at the Fort Bragg MSWLF Landfill, please contact the Solid Waste Section at (919) 733-0692.

Sincerely,

Bobby Lutfy

Bobby Lutfy
Hydrogeologist
Solid Waste Section

cc: Ikie Guyton

State of North Carolina
Department of Environment,
Health and Natural Resources
Division of Solid Waste Management



James B. Hunt, Jr., Governor
Jonathan B. Howes, Secretary
William L. Meyer, Director

January 17, 1995

Mr. Michael J. Ackerman
Chief, Environmental Branch
AFZA-DW-DV
Fort Bragg, NC 28307

RE: Technical Review, Fort Bragg Landfill
Transition Plan, Permit No. 26-02

Mr. Ackerman:

The Solid Waste Section (Section) recently performed a technical review excluding the Local Area Study and the Water Quality Monitoring Plan of the referenced transition plan application submitted by RS & H Architects•Engineers•Planners, Inc. on behalf of Fort Bragg. The Section hydrogeologist will review these aspects of the application and will request any additional water monitoring information needed upon completion of his review.

The Section's preliminary review involved evaluating the Fort Bragg Landfill's Transition Plan against the N. C. Solid Waste Management Rules, 15A NCAC 13B. Based on its preliminary review, the Section needs the following additional information from RS & H Architects•Engineers•Planners, Inc.

Chapter 2 - Location Restriction Demonstration

1. The transition plan states that the landfill is not located within 10,000 feet of any public-use runways. Please provide a demonstration for this. A demonstration could include (1) a letter from Fort Bragg to the Federal Aviation Agency (FAA) indicating the landfill latitude and longitude and requesting the location of public-use airports within 5,000 feet from any airport runway used by only piston-powered aircraft or within 10,000 feet from any runway used by turbine-powered aircraft; (2) the response letter from the FAA, and (3) a topographic map or State, regional, or local government agency map indicating the closest distance from the end of a runway to the nearest referenced landfill unit. Another demonstration could include (1) a NC Aeronautical Chart and (2) a USGS quadrangle map indicating airports and showing distances from the landfill.
2. The transition plan states that the Fort Bragg landfill facility is not located in any 100-year floodplain. Please include a Federal Emergency Management Agency Flood Insurance Rate Map with the landfill area shown on it.

Chapter 6 - Operation Plan

3. Address items in Rule .1626(1), (2), (3), (5), (6), (8), (9), (10) and (11).

Chapter 7 - Closure Plan

4. Include the closure of Cell 10 in the Closure Plan.
5. In a meeting on January 11, 1995 with Fort Bragg and the N.C. Solid Waste Section, alternative cap systems were discussed. Fort Bragg may propose an alternative cap system in accordance with Rule .1627(c)(2). The alternative cap system and the demonstration must be included in the Transition Plan.

Chapter 8 - Post-Closure Plan

6. In accordance with Rule .1626(4)(b)(ii), the minimum frequency of methane gas monitoring shall be quarterly.
7. Address items in Rule .1627(d)(3).

Operational Drawings

8. In accordance with Rule .1625(b)(1)(C), show progression of operation, including initial waste placement, daily operation, transition contours, and final contours.
9. Show stockpile and borrow operations in accordance with Rule .1625(b)(1)(G).

Please submit requested information or revisions to the Section within 45 days to expedite review of the referenced transition plan application. Requested information or revisions should be submitted in accordance with Rule .1603(b). The Section reserves the right to request any additional information during the technical review process. If you have any questions regarding this matter, please contact me at (919) 733-0692.

Sincerely,



Susan J. Wright
Environmental Engineer

cc: Ikie Guyton - DSWM
Terry Dover - DSWM