

READ FILE



UNITED STATES MARINE CORPS  
MARINE CORPS BASE  
PSC Box 20004  
Camp Lejeune, North Carolina 28542-0004

In reply refer to:

6287

BEMD

MAR 07 2003

Mr. David Holsinger, PE  
North Carolina Department of Environment  
and Natural Resources  
Division of Waste Management  
Underground Storage Tank Section  
127 Cardinal Drive  
Wilmington, North Carolina 28405-3845

Dear Mr. Holsinger:

Marine Corps Base, Camp Lejeune has issued public notices for former underground storage tank (UST) sites at Building 20-1 aboard Camp Lejeune and TT-779, TT-2254, TT-2258, TT-3524 located in Tarawa Terrace I and II in compliance with the public notice requirements described in your "Notice of No Further Action" letters dated January 10, 21, and 22, 2003. Camp Lejeune has provided copies of the notices by certified mail to the Onslow County Health Director, Jacksonville City Manager, and Onslow County Manager. In addition, Camp Lejeune published legal notices in the *Jacksonville Daily News* on February 19, 20, and 21, 2003 for Site 20-1 and February 21, 22, 23, 2003 for the Tarawa Terrace sites.

Per your request, we have enclosed certified receipts for the notices sent to the Onslow County Health Director, Jacksonville City Manager, and Onslow County Manager, as well as, the legal notices from the *Jacksonville Daily News* for the aforementioned sites. Well abandonment records for temporary monitoring wells at former UST sites TT-779, TT-2254, TT-2258, and TT-3524 were submitted to the State in November 2002. The monitoring well at Building 20-1 site will be abandoned in accordance with 15A NCAC 02C.0113 and the well abandonment record will be forwarded to the Division of Water Quality.

State of North Carolina  
Department of Environment  
and Natural Resources  
Wilmington Regional Office  
Division of Waste Management  
UST Section

Michael F. Easley, Governor  
William G. Ross Jr., Secretary  
Dexter R. Matthews, Director



January 21, 2003

Ms. Nikki Hall  
Attention: Director, I & E/EMD/EQB  
Marine Corps Base  
PSC Box 20004  
Camp Lejeune, NC 28542-0004

Subject: Notice of No Further Action  
15A NCAC 2L .0115(h)  
USMC Camp Lejeune, Bldg. TT-3524  
Hungman Circle  
Camp Lejeune, Onslow County  
Incident No. 23698  
Classification: Low Risk

Dear Ms. Hall:

On November 15, 2002, the Underground Storage Tank (UST) Section, Division of Waste Management (DWM) Wilmington Regional Office received a Limited Site Assessment Report for the above-referenced site. A review of the report shows that soil contamination does not exceed the residential maximum soil concentrations established in 15A NCAC 2L .0115(m). A review of the report also shows that groundwater standards have not been exceeded.

Based on information provided to date, the UST Section determines that no further action is warranted for this incident. This determination is conditional pending completion of the public notice specified below. Once proper public notice has been given, this determination will apply unless the UST Section later determines that the discharge or release poses an unacceptable risk or a potentially unacceptable risk to human health or the environment.

Pursuant to 15A NCAC 2L .0115(e), the USMC has a continuing obligation to notify the UST Section of any changes that it knows of or should know of, that might affect the level of risk assigned to the discharge or release. Such changes include, but are not limited to, changes in zoning of real property, use of real property or the use of groundwater that has been contaminated or is expected to be contaminated by the discharge or release, if such change could cause the UST Section to reclassify the risk. Please note that this responsibility not only pertains to changes involving the property on which the release occurred, but to changes involving the surrounding properties as well.

Please be advised that the USMC must comply with the public notice requirements of 15A NCAC 2L .0115(k) as specified below. **If public notice is not provided as required, this no further action determination will be deemed invalid.** Within **30 days** of receipt of this no further action notice, the USMC must provide a copy of this notice to the following persons:

- local health director;
- chief administrative officer (i.e., Mayor, Chairman of the County Commissioners, County Manager, City Manager or other official of equal or similar position) of each political jurisdiction in which the contamination occurs;
- all property owners and occupants within or contiguous to the area containing contamination; and
- all property owners and occupants within or contiguous to the area where the contamination is expected to migrate.

Copies of this no further action notice must be sent to the persons listed above by certified mail. If it is impractical to provide notice by certified mail to the occupants of apartment buildings, condominiums, office buildings, etc., the USMC may post a copy of this notice in a prominent place where the occupants are most likely to see it.

Within **60 days** of receiving this no further action notice, the USMC must provide the UST Section at the Wilmington Regional Office with proof of receipt of the copy of the notice or of refusal by the addressee to accept delivery of the copy of the notice. If a copy of the notice is posted, the USMC must provide the UST Section with a description of the manner in which the notice was posted.

Interested parties may examine the Limited Site Assessment Report by contacting Ms. Nikki Hall at (910) 451-9610. In addition, the UST Section Wilmington Regional Office has the report along with other site information on file and available for public review.

Ms. Nikki Hall  
January 21, 2003  
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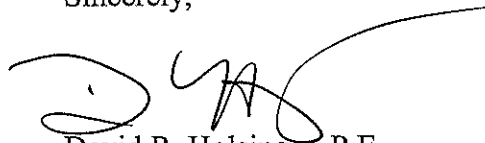
Interested parties may arrange to review this information by contacting the regional office as listed below. In addition, comments on the Limited Site Assessment Report may be submitted to the regional office.

Bruce Reed  
NCDENR Wilmington Regional Office  
127 Cardinal Drive Extension  
Wilmington, N C 28405  
(910) 395-3900

Please be advised that the USMC should close any monitoring wells or injection wells used to investigate or remediate this incident in accordance with 15A NCAC 2C .0113 and .0214, respectively. For guidance on closure of infiltration galleries, please contact the Division of Water Quality, Groundwater Section, at the Wilmington Regional Office.

If there are any questions concerning this notice, please contact Bruce Reed at (910) 395-3900.

Sincerely,



David R. Holsinger, P.E.  
Regional Supervisor

DRH/BAR

Attachments: Well Abandonment Form  
15A NCAC 2C .0113

cc: Rob Krebs  
WiRO-UST

s:\bruce\hall3524.nfa

**WELL ABANDONMENT RECORD** WELL CONTRACTOR \_\_\_\_\_  
WELL CONTRACTOR CERTIFICATION # \_\_\_\_\_

1. WELL USE (Check Applicable Box): Residential  Municipal  Industrial  Agricultural  Monitoring   
Recovery  Heat Pump Water Injection  Other  If Other, List Use: \_\_\_\_\_

2. WELL LOCATION: (Show a sketch of the location on back of form.)  
Nearest Town: \_\_\_\_\_ County \_\_\_\_\_

(Road Name and Number, Community, Subdivision, Lot No.) \_\_\_\_\_ Quadrangle No. \_\_\_\_\_

3. OWNER: \_\_\_\_\_

4. ADDRESS: \_\_\_\_\_

5. TOPOGRAPHY: draw, slope, hilltop, valley, flat  
(circle one)

6. TOTAL DEPTH: \_\_\_\_\_ DIAMETER \_\_\_\_\_

7. CASING REMOVED:  
feet diameter  
\_\_\_\_\_  
\_\_\_\_\_

8. DISINFECTION: \_\_\_\_\_  
(Amount of 70% hypochlorite used:)

9. SEALING MATERIAL:  
Neat Cement Sand Cement  
bags of cement \_\_\_\_\_ bags of cement \_\_\_\_\_  
gallons of water \_\_\_\_\_ gallons of water \_\_\_\_\_  
Other  
Type material \_\_\_\_\_  
Amount \_\_\_\_\_

10. EXPLAIN METHOD EMPLACEMENT OF MATERIAL.  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

11. DATE WELL ABANDONED \_\_\_\_\_

**WELL DIAGRAM:** Draw a detailed sketch of the well showing total depth, depth and diameter of screens remaining in the well, gravel interval, intervals of casing perforations, and depths and types of fill materials used.

I do hereby certify that this well was abandoned in accordance with 15A NCAC 2C, well construction standards, and that a copy of the record has been provided to the well owner.

Signature of person abandoning the well \_\_\_\_\_ Date \_\_\_\_\_

WELL LOCATION: Draw a location sketch on the reverse of this sheet, showing the direction and distance of the well to at least two (2) nearby reference points such as roads, intersections and streams. Identify roads with State Highway road identification numbers.

Submit original to the Division of Water Quality, Groundwater Section, one copy to the owner within 30 days from completion of abandonment.

15A NCAC 02C .0113 ABANDONMENT OF WELLS

(a) Any well which has been temporarily abandoned, shall be abandoned in accordance with one of the following procedures:

- (1) Upon temporary removal from service or prior to being put into service, the well shall be sealed with a water-tight cap or seal compatible with casing and installed so that it cannot be removed easily by hand.
- (2) The well shall be maintained whereby it is not a source or channel of contamination during temporary abandonment.
- (3) Every temporarily abandoned well shall be protected with a casing.

(b) Any well which has been abandoned permanently shall be abandoned in accordance with the following procedures:

- (1) Procedures for permanent abandonment of wells, other than bored and hand dug wells:
  - (A) All casing and screen materials may be removed prior to initiation of abandonment procedures if such removal will not cause or contribute to contamination of the groundwaters. Any casing not grouted in accordance with 15A NCAC 2C .0107(e) of this Section shall be removed or properly grouted.
  - (B) The entire depth of the well shall be sounded before it is sealed to ensure freedom from obstructions that may interfere with sealing operations.
  - (C) Using a hypochlorite solution (such as HTH), disinfect the well in accordance with 15A NCAC 2C .0111. Do not use a common commercial household liquid bleach, as this is too weak a solution to ensure proper disinfection.
  - (D) In the case of gravel-packed wells in which the casing and screens have not been removed, neat-cement, or bentonite grout shall be injected into the well completely filling it from the bottom of the casing to the top.
  - (E) Wells, other than "bored" wells, constructed in unconsolidated formations shall be completely filled with cement grout, or bentonite grout by introducing it through a pipe extending to the bottom of the well which can be raised as the well is filled.
  - (F) Wells constructed in consolidated rock formations or that penetrate zones of consolidated rock may be filled with cement grout, bentonite grout, sand, gravel or drill cuttings opposite the zones of consolidated rock. The top of the cement grout, bentonite grout, sand, gravel or cutting fill shall terminate at least 10 feet below the top of the consolidated rock or five feet below the bottom of casing. Cement grout or bentonite grout shall be placed beginning 10 feet below the top of the consolidated rock or five feet below the bottom of casing and extend five feet above the top of consolidated rock. The remainder of the well, above the upper zone of consolidated rock, shall be filled with cement grout or bentonite grout up to land surface. For any well in which the depth of casing or the depth of the bedrock is not known or cannot be confirmed, then the entire length of the well shall be filled with cement grout or bentonite grout up to land surface.
  - (G) Temporary wells or monitor wells:
    - (i) less than 20 feet in depth which do not penetrate the water table shall be abandoned by filling the entire well up to land surface with cement grout, dry clay, bentonite grout, or material excavated during drilling of the well and then compacted in place; and
    - (ii) that penetrate the water table shall be abandoned by completely filling with a bentonite or cement - type grout.

.0214 ABANDONMENT AND CHANGE-OF-STATUS OF WELLS

(a) In the event any injection or associated monitoring well is abandoned, either temporarily or permanently, the well owner shall notify the Director within 15 days and the well(s) shall be abandoned in accordance with one of the following procedures or other alternatives approved by the Director based on a demonstration of not adversely affecting human health or the environment:

- (1) Procedures for temporarily abandoned wells.
  - (A) Upon temporary removal from service, or prior to being put into service, the well shall be sealed with a water-tight cap or seal compatible with the casing and installed so that it cannot be removed without the use of hand or powers tools.
  - (B) The well shall be maintained whereby it is not a source or channel of contamination to an underground source of drinking water during its temporary status.
  - (C) The well shall be repaired, to achieve compliance with the Rules in this Section, or permanently abandoned within 30 days of receipt of notice from the department, upon finding that a well is acting as a source or channel of contamination to an underground source of drinking water.
- (2) Procedures for permanently abandoned wells.
  - (A) All casing and materials may be removed prior to initiation of abandonment procedures if the Director finds such removal will not be responsible for, or contribute to, the contamination of an underground source of drinking water. Any casing not grouted in accordance with 15A NCAC 2C .0113 shall be removed or properly grouted.
  - (B) The entire depth of the well shall be sounded before it is sealed to insure freedom from obstructions that may interfere with sealing operations.
  - (C) The well shall be thoroughly disinfected, prior to sealing, if the Director determines that failure to do so could lead to the contamination of an underground source of drinking water.
  - (D) Drilled wells shall be completely filled with cement grout, which shall be introduced into the well through a pipe which extends to the bottom of the well and is raised as the well is filled. "Bored" or hand-dug wells over 24 inches in diameter may be filled with an alternative material approved by the Director based on a demonstration of not adversely affecting human health or the environment.
  - (E) In the case of gravel-packed wells in which the casing and screens have not been removed, neat-cement shall be injected into the well completely filling it from the bottom of the casing to the top.
  - (F) In those cases when, as a result of the injection operations, a subsurface cavity has been created, the well shall be abandoned in such a manner that will prevent the movement of fluids into or between underground sources of drinking water and in accordance with the terms and conditions of the permit.

(b) Exploratory or test wells, constructed for the purposes of obtaining information regarding an injection well site, shall be permanently abandoned in accordance with Subparagraph (2) of this Rule upon completion of their exploratory or testing status.

(c) An injection well shall be permanently abandoned by the drilling contractor before removing his equipment from the site if the well casing has not been installed or has been removed from the well bore.

*History Note: Authority G.S. 87-87; 87-88; 143-211; 143-215.1A; 143-215.3(a)(1); 143-215.3(c);*

*Eff. August 1, 1982;*

*Amended Eff. February 1, 1997; October 1, 1996.*

State of North Carolina  
Department of Environment  
and Natural Resources  
Wilmington Regional Office  
Division of Waste Management  
UST Section

Michael F. Easley, Governor  
William G. Ross Jr., Secretary  
Dexter R. Matthews, Director



May 30, 2002

Ms. Nikki Hall  
Attention: Director, I&E/EMD/EQB  
Marine Corps Base  
PSC Box 20004  
Camp Lejeune, NC 28542-0004

Subject: Time Extensions  
USMC-Camp Lejeune, Bldgs. TT: 779,  
2302, 2254, 2258, 3140, 3165, 3233, 3524,  
3548, PP: 3311, 3322, 3326, 3330, 3332,  
3340, 3343, 3350, 3354, 3358, and 3363  
Camp Lejeune, Onslow County

Dear Ms. Hall:

The Division has reviewed the subject time extension requests that were received by this office on May 29, 2002. The extensions are granted. If the reports are not received by the new due date, fines and penalties may be assessed from the original due date.

If you have any questions concerning this letter, please contact me at (910) 395-3900.

Sincerely,

Bruce Reed  
Hydrogeologist II

BR

cc: WIRO-UST

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Below residential

**State of North Carolina  
Department of Environment  
and Natural Resources  
Wilmington Regional Office  
Division of Waste Management  
UST Section**



**Michael F. Easley, Governor  
William G. Ross Jr., Secretary  
Dexter R. Matthews, Director**

February 15, 2002

Ms. Nikki Hall  
Attn: Director, I&E/EMD/EQB  
Marine Corps Base  
PSC Box 20004  
Camp Lejeune, NC 28542-0004

**RE: Notice of Regulatory Requirements  
15A NCAC 2L .0115(c)  
RISK-BASED ASSESSMENT AND  
CORRECTIVE ACTION FOR PETROLEUM  
UNDERGROUND STORAGE TANKS  
USMC-Camp Lejeune-Bldg. TT-3524  
Camp Lejeune, Onslow County, N.C.  
Risk: Unconfirmed  
Incident No. 23698**

Dear Ms. Hall:

Information received by this office on February 14, 2002, confirms a release or discharge from a petroleum underground storage tank (UST) system at the above referenced location. Records indicate that the USMC is the owner and/or operator of this UST tank system. This letter is a standard notice explaining the actions that the USMC must take as a result of the release or discharge in accordance with North Carolina statutes and rules. The UST Section of the Division of Waste Management administers the state's rules for USTs and the required response for petroleum releases. Those rules are located in Title 15A, Subchapter 2L and Title 15A, Subchapter 2N of the North Carolina Administrative Code (NCAC).

As a responsible party, the USMC is required to comply with the release response and corrective action requirements of 15A NCAC 2L .0115(c), which include the requirements established in 15A NCAC 2N. Listed is a general description of actions that the USMC must take to comply with State rules. For a detailed description of your requirements please refer to the enclosed rules and the July 2001 UST Section Guidelines for Assessment and Corrective Action. The Guidelines are available on the Internet at <http://ust.enr.state.nc.us> or may be purchased from the UST Section for a fee of \$8.50. To purchase a copy of the Guidelines, please send a check made payable to DENR to:

DENR/DWM/UST Section  
1637 Mail Service Center  
Raleigh, NC 27699-1637

Required Actions:

- 1) If the USMC has not already done so, the USMC must take immediate action to prevent any further release of the regulated substance into the environment and to identify and mitigate any fire, explosion and vapor hazards; remove any free product; and comply with the requirements of Rules .0601 through .0604 and .0701 through .0703 and .0705 of Subchapter 2N;
- 2) Incorporate the requirements of 15A NCAC 2N .0704 into the report to be submitted in accordance with 15A NCAC 2L .0115 (c)(3) or (c)(4), whichever is applicable (see Item #3 below). This shall constitute compliance with the reporting requirements of 15A NCAC 2N .0704(b);
- 3) If the USMC can demonstrate that no soil remains in the unsaturated zone in the sidewalls and at the base of the UST system excavation with contaminant levels exceeding either the "soil-to-groundwater" or the residential maximum soil contaminant concentrations (See Guidelines), whichever are lower, then submit a Soil Contamination Report in accordance with 15A NCAC 2L.0115(c)(3). The Soil Contamination Report, if applicable, is due in this office within **90 days** of the date of receipt of this notice. Upon approval of this report, the Department will issue a notice indicating that no further action related to this incident is required; or,
- 4) If the requirements of 15A NCAC .0115(c)(3) cannot be met as described in Item #3 above, submit a Limited Site Assessment (LSA) Report in accordance with 15A NCAC 2L .0115(c)(4), containing information needed by the Department to classify the level of risk to human health and the environment posed by the discharge or release. The LSA Report is due in this office within **120 days** of the date of receipt of this notice. Based on a review of the information submitted in the LSA, the Department will classify the risk of the discharge or release as high, intermediate or low. At that time, the Department will also classify the land use of the site as either residential or industrial/commercial. The USMC will be notified of the risk and land use classifications once review of your LSA Report is completed.

If the USMC believes that any of the information requested above has already been submitted, please notify me of the date, title, and content of the documents that contain the information.

Ms. Nikki Hall  
February 15, 2002  
Page 3

The USMC's prompt attention to the items described herein is required. Failure to comply with the state's rules in the manner and time specified, may result in the assessment of civil penalties and /or the use of other enforcement mechanisms available to the State. Each day that a violation continues may be considered a separate violation. If the USMC believes that it is not the responsible party notify the UST Section within **15 days** of receipt of this letter.

Please note that performing assessment and cleanup work that is not required under 15A NCAC 2L.0115 is not reimbursable from the Commercial or Noncommercial Leaking Petroleum Underground Storage Tank Cleanup Funds.

If the USMC has any questions regarding the actions that must be taken or the rules mentioned in this letter, please contact me at the letterhead address and/or at (910) 395-3900. If the USMC has any questions regarding trust fund eligibility or reimbursement, please contact the UST Section in Raleigh at (919) 733-8486.

Sincerely,



Bruce Reed  
Hydrogeologist II

BR

cc: George O'Daniel (Onslow County Health Dept.)  
WiRO-UST

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