

N42237.AR.000497  
NSB KINGS BAY  
5090.3a

LETTER WITH REVISED UNDERGROUND INJECTION CONTROL PERMIT FOR SITE 11  
NSB KINGS BAY GA  
8/21/2001  
GEORGIA DEPARTMENT OF NATURAL RESOURCES

0112

# Georgia Department of Natural Resources

205 Butler Street, S.E., East Floyd Tower, Atlanta, Georgia 30334

Lonice C. Barrett, Commissioner

Harold F. Reheis, Director

Environmental Protection Division

(404) 656-4713

NSB Kings Bay Administrative Record  
Document Index Number

**31547-000**  
**09.01.00.0165**

August 21, 2001

Mr. John R. Garner  
Environmental Division  
Dept. of Navy  
Naval Submarine Base  
1063 USS Tennessee Ave.  
Kings Bay, GA 31547-2606

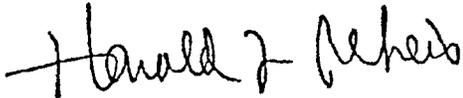
RE: Revised Underground Injection Control Permit #089, Kings Bay Submarine Base Site 11,  
Old Camden County Landfill, Kings Bay, Georgia.

Dear Mr. Garner:

Enclosed is the third revised Underground Injection Control (UIC) Permit #089 for the Kings Bay Submarine Base Site 11, Old Camden Co. Landfill, located at Kings Bay, Georgia. The initial revised permit was issued on November 3, 1999 for the injection of hydrogen peroxide, ferrous sulfate, calcium phosphate, dilute phosphoric acid, and dilute sulfuric acid through fifty three (53) injection points. This revised UIC permit allows the U.S. Navy to utilize injection of hydrogen peroxide, ferrous sulfate, calcium phosphate, dilute phosphoric acid, dilute sulfuric acid, vegetable oil, and lecithin through twenty five (25) additional wells and the fifty three (53) previously installed wells, and the injection of vegetable oil and lecithin through thirty nine (39) temporary soil borings. This permit is issued to assist the U.S. Navy with the remediation of soil and ground-water contaminated with chlorinated solvents at this site for up to five (5) years. This permit brings the total injection points to one hundred and seventeen (117). The UIC permit states two (2) standard conditions and seven (7) additional conditions in the attachment.

If you have any questions about the permit please contact Bijan Rahbar, UIC Coordinator, at (404) 656-3214.

Sincerely,



Harold F. Reheis  
Director

ENCLOSURE	
Enclosure	
cc:	File UIC Permit #089
	L. Rogers, EPD-CR
	B. Hendricks, EPD-HWMB
	S. Ross, CH2MHILL

STATE OF GEORGIA  
DEPARTMENT OF NATURAL RESOURCES  
ENVIRONMENTAL PROTECTION DIVISION

*INJECTION WELL OPERATING PERMIT*

**PERMIT NUMBER: #089**

**DATE ISSUED: August 21, 2001**

**FACILITY DATA:            INJECTION WELL TYPE: CLASS V (type 5X26)**

FACILITY: Naval Submarine Base  
Site 11, Old Camden Co. Landfill  
Kings Bay, GA  
Camden County

OPERATOR: Dept. of Navy\*  
Naval Submarine Base  
1063 USS Tennessee Ave.  
Kings Bay, GA 31547-2606

LOCATION: Lat: 30° 48' 40.2" N  
Long: 81° 34' 18.4" W

EPD ID # GA17009001  
HWMB Permit# HW-014(S)(2)

In accordance with the provisions of the Georgia Rules for Underground Injection Control, Chapter 391-3-6-.13, as amended 2001, this permit is issued for the operation of the herein described injection system. Unless appealed, this permit is effective thirty (30) days after its issuance and is conditioned upon the following:

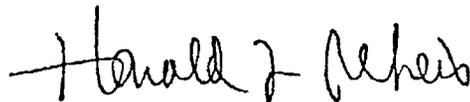
- 1) The Permittee's continued compliance with the Georgia Rules for Underground Injection Control, Chapter 391-3-6-.13, the Georgia Rules for Water Quality Control (Revised) and the Georgia Rules for Safe Drinking Water (Revised); and
- 2) The Permittee's continued compliance with the Permittee's approved injection operation plan which is part of the approved Corrective Action Plan for this site, along with provisions of officially approved plan amendments, if any.

Additional conditions 1 through 7 are attached hereto.

This permit is issued in accordance with the initial application received July 24, 1998, and revised applications received October 1, 1998, June 2, 1999, September 1, 1999, October 29, 1999 July 10, 2001, and August 14, 2001. The revised injection operation plan was approved on August 21, 2001, and is based on the statements and supporting data entered herein or attached thereto, all of which are filed with the Environmental Protection Division of the Georgia Department of Natural Resources and hereby made a part of this permit.

This permit is subject to revocation for noncompliance with aforementioned conditions.

This permit expires on **August 21, 2006**, unless previously terminated.



Harold F. Reheis, Director, Environmental Protection Division  
Georgia Department of Natural Resources

\* CH2MHILL, as consultant to Kings Bay Submarine Base, may be contacted regarding technical questions at (904) 777-4812.

**INJECTION WELL OPERATING PERMIT  
ADDITIONAL CONDITIONS**

1. Permit Conditions.

- a. This permit is not transferable until any new operator shall agree in writing to these additional permit conditions. Any new operator also shall provide the Environmental Protection Division (Division) with appropriate documentation that they have adequate financial assurances to plug all existing Class V wells.
- b. If the U.S. Navy (Operator) wishes to continue an activity regulated by this permit after the expiration of the permit, the Operator must apply for and obtain a new permit.
- c. The Operator shall report any instances of noncompliance with permit conditions to the Division in writing within five (5) working days of such noncompliance and shall take all reasonable steps to minimize the impact on the environment resulting from noncompliance with this permit and the Georgia Rules for Underground Injection Control.
- d. The Operator shall notify the Division of any proposed changes to the performance of the water injection system in writing at least thirty (30) days prior to the change.
- e. All reports submitted to the Division shall be signed and stamped by a Georgia Registered Professional Engineer or Professional Geologist.
- f. All analyses shall be performed by a laboratory approved or accredited by EPD in accordance with the Georgia Rules for Commercial Laboratory Accreditation, Chapter 391-3-26.

2. System Parameters.

- a. This permit is issued to the Operator for the purpose of operating an injection system consisting of hydrogen peroxide, ferrous sulfate, calcium phosphate, dilute phosphoric acid, dilute sulfuric acid, vegetable oil, and lecithin at the above referenced site to aid in remediation of soil and ground water contaminated with chlorinated solvents.
- b. Number of Class V injection wells: seventy eight (78) injection wells and thirty nine (39) injection soil borings for a total of one hundred and seventeen (117) injection points.
- c. Injected fluid: Hydrogen peroxide and ferrous sulfate solution buffered with phosphoric acid, sulfuric acid, calcium phosphate, vegetable oil, and lecithin as needed. Soil borings will be injected with vegetable oil and lecithin only.
- d. Maximum injection rate per well: 1.0 gallons of liquid/min. (gpm)/well  
Maximum total injection rate: 117.0 gpm
- e. Maximum total injection volume per well: 1,440 gallons of liquid/day/well  
Maximum total injection volume: 168, 480 g/day
- f. Maximum daily average injection pressure (at well head): 40 psig.

3. Monitoring and Reporting Requirements.

- a. The Operator shall report to the Underground Injection Control Program of the Division the number and exact location of all Class V injection wells it installs or plugs on a quarterly basis. The reports are to be submitted to the UIC Program in accordance with the reporting schedule stipulated by the Hazardous Waste Management Branch.
- b. The Operator shall submit to the Division for its approval, a detailed schematic diagram and location map on any Class V injection well that is different in construction from the specifications contained in the UIC permit application, no later than 45 days prior to installation of the injection well. The Operator cannot install such a well until it receives approval from the Division.
- c. The Operator shall submit to the UIC Program one (1) copy of any report regarding this site which the Operator is required to submit to the Hazardous Waste Management Branch, or any other program within the Division.
- d. The Operator shall submit to the UIC Program an annual report which will contain the following information.
  1. Status of the injection system operation;
  2. Results of any ground-water sampling and analyses;
  3. Results of any soil sampling and analyses;
  4. An evaluation of the plume movement through the ground-water, if any;
  5. Comparisons of analyses to determine any changes in pollutant concentrations.

The annual reports will be provided to the UIC Program in accordance with the schedule stipulated by the Hazardous Waste Management Branch.

4. Emergency Situations.

- a. The Operator is to immediately notify the Division of any emergency situation that affects the injection system and describe the remedial activity that the Operator is utilizing to correct the situation.
- b. The Operator is to immediately notify the Division when the emergency situation ceases to exist.

Additional Conditions, UIC Permit #089, August 21, 2001, cont.

5. The Operator shall grant the Division permission to enter the facility property to conduct inspections of the injection system.
6. The Operator shall maintain a copy of this permit at the facility site.
7. The Operator shall, upon termination of the injection of hydrogen peroxide, ferrous sulfate, calcium phosphate, dilute phosphoric acid, dilute sulfuric acid, vegetable oil, and lecithin through Class V injection wells at this site, properly plug and abandon all Class V wells constructed on this site in accordance with EPD's *Manual for Groundwater Monitoring* (September 1991) and notify the division within thirty (30) days of such termination and abandonment.