



ILLINOIS ENVIRONMENTAL PROTECTION AGENCY

1021 North Grand Avenue East, P.O. Box 19276, Springfield, Illinois 62794-9276 Mary A. Gade, Director

217/524-3300

March 10, 1999

CERTIFIED MAIL
P 344 335 432

Mr. Mark Schultz
Department of the Navy
Navy Public Works Center
Building 1-A
2703 Sheridan Road, Suite #120
Great Lakes, Illinois 60088-5600

Re: 0971255004 -- Lake County
U.S. Navy Great Lakes Naval Training Center
IL7170024577
Log No. C-689-M-6
Received: November 17, 1998
RCRA Closure

Dear Mr. Schultz:

This letter is in response to the Partial Closure Certification and Sampling/Inspection Report dated November 1998 which you submitted. This submittal dealt with RCRA closure activities at five (5) hazardous waste container storage areas at the above-referenced facility (referred to as Building 105, Building 145, Building 415, Building 520 and Building 912). The subject submittal was reviewed as a request to modify the approved final RCRA closure plan for the Great Lakes Naval Training Center (Log No. C-689 and associated modifications) and is hereby approved subject to the following conditions and modifications:

1. Table 8-1 of the subject report proposes the following recommendations regarding future activities for completing closure of each of the subject units:
 - a. Buildings 105, 415, 912 Closure activities are complete, with the understanding that institutional controls and engineered barriers, as described in Sections 8.1.2, 8.3.2 and 8.5.2, similar to an pursuant to 35 IAC 742 Subparts J and K, respectively, will be implemented by GLNTC to prevent exposure to residual soil and groundwater contamination.
 - b. Buildings 145, 520A1 None: Closure activities complete.

Illinois EPA does not completely agree with these recommendations as set forth in Conditions 2, 3, 7-12 below.

2. The extent of soil contamination has been defined at Buildings 105, 415 and 912. Soil contamination detected at these units may not require remediation provided engineered barriers and deed restrictions are completed meeting the requirements in 35 Ill. Adm. Code 742 (TACO).

The subject report did not clearly demonstrate how all the TACO requirements were met at these units. Thus, a report must be developed and submitted to Illinois EPA along with the report required by Condition 10 below for review and approval which clearly demonstrates how the TACO requirements are being met in developing appropriate remediation objectives (ROs) for these units. This report should:

- a. Identify the regulations that are being used to develop ROs;
- b. Demonstrate compliance with the requirements associated with each of these regulations; and
- c. Demonstrate that the ROs meet the requirements of 35 Ill. Adm. Code 742.

Supporting information for all data used in the development of these ROs must be provided in the report including: (1) documentation that the information used was appropriate, including the results of all testing conducted; (2) all calculations which were made in developing the ROs; and (3) a description of how all the information used in these efforts was obtained. Additional general guidance regarding TACO requirements for RCRA projects is attached.

3. Any institutional controls used to meet the requirements of TACO must meet the requirements of 35 Ill. Adm. Code 742, Subpart J. It is understood that the Department of the Navy is currently working with Illinois EPA to develop a process for establishing acceptable institutional ^{controls} at facilities owned by the Department of Defense.
4. Illinois EPA stated in a letter dated September 28, 1995 that no further closure efforts were necessary at Building 145, provided that a site-safety plan addressing worker exposure to the remaining soils beneath that building was developed and implemented during any future excavation or construction activities at that unit. Similarly, a June 12, 1995 letter indicated that no further closure efforts were necessary at Building 520. However, final certification of closure of these units will not be approved until certification of closure of Buildings 105, 415 and 912 is submitted and approved.
5. In a March 29, 1994 letter (corrected June 6, 1994), Illinois EPA accepted certification of closure of the following former RCRA storage units at the subject facility:

- a. Building 38H Drug Screening Laboratory S01 Area;
- b. Building 81H Naval Hospital S01 Area;
- c. Building 104A Public Works Center S01 Area;
- d. Building 220 Navy Resale Activity S01 Area;
- e. Building 520 Service School Command S01 Area 2;
- f. Building 520 Service School Command S01 Area 3;
- g. Building 521 Service School Command Gun School S01 Area;
- h. Building 1212 Loading Dock S01 Area;
- i. Building 1517 Warehouse S01 Area;
- j. Building 1712 Maintenance S01 Area;
- k. Building 3213C S01 Area.

It should be noted that during future excavation and construction at Building 521, a site safety plan must be developed and implemented to address worker exposure to the remaining soil at that unit.

6. Building 415 (Navy Exchange SO1 Area) and Building 912 (Navy Resale Activity Laundry SO1 Area) may be clean closed at this time, with respect to groundwater. Pursuant to the sampling/analysis results provided, it appears as though no groundwater contamination is present in the areas surrounding the building.
7. Building 105 (Former Laundry SO1 Area) cannot be clean closed at this time with respect to groundwater. Pursuant to the sampling/analysis results provided, two (2) parameters, tetrachloroethene (PCE) and cis-1,2-dichloroethene (DCE) have been detected in groundwater in excess of the Class I and/or Class II Groundwater Quality Standards. Therefore, as required by Condition 4 of the Illinois EPA's September 9, 1996 letter (Log #C-689-M-3) and Condition 10 of the Illinois EPA's March 31, 1998 letter (Log #C-689-M-5) the vertical and horizontal extent of groundwater contamination must be determined in the vicinity of Building 105. The extent of contamination must be delineated by exceedances of the applicable 35 Ill. Adm. Code Part 620 Groundwater Quality Standards for PCE and cis-1,2-DCE.

8. At this time, the "Class II General Resource Groundwater Quality Demonstration" contained in Appendix J of the submittal, cannot be approved by the Illinois EPA due to the lack of supporting documentation regarding the determination of the appropriate 35 Ill. Adm. Code Part 620 groundwater classification at the site. The supporting documentation must be submitted, along with the information required by Condition 10 below, addressing each criteria as outlined in 35 Ill. Adm. Code 620.210 for the Illinois EPA's review and approval. The determination of vertical and horizontal extent required by Condition 7 above may be postponed until the Illinois EPA approves the appropriate groundwater classification in accordance with 35 Ill. Adm. Code 620.210.
9. The facility shall conduct a TACO analysis in accordance with 35 Ill. Adm. Code Part 742 for groundwater contamination in the vicinity of Building 105. At a minimum, the following are required:
 - a. Determination of groundwater classification in accordance with 35 Ill. Adm. Code Part 620;
 - b. Collection of site-specific parameters for use in the analysis including source concentration, distance to receptor (downgradient property boundary), source width, source depth, in-situ hydraulic conductivity, hydraulic gradient, and total soil porosity. Please note that additional field work may be necessary to collect data associated with the site-specific parameters.
 - c. Construction of a groundwater flow map for the area around Building 105.
 - d. The extent of groundwater impacts delineated by the extent of groundwater contamination present beneath Building 105.
10. Within ninety (90) days the facility must submit additional information addressing groundwater contamination in the vicinity of Building 105 for the Illinois EPA's review and approval. This submittal shall include at a minimum:
 - a. Supporting documentation and evaluation of groundwater levels in regards to the applicable groundwater classification, as outlined in 35 Ill. Adm. Code 620.210 and as required by Condition 8 above;
 - b. A completed TACO analysis conducted in accordance with 35 Ill. Adm. Code Part 742 and as required by Condition 9 above;

- c. A proposal for additional groundwater investigation in the vicinity of Building 105 and as required by Condition 6 above; and
 - d. A proposal for additional groundwater sampling/analysis associated with groundwater activities in the vicinity of Building 105.
11. As required by the Illinois EPA's March 31, 1998 letter (Condition 11, Log #C-689-M-5), SW-846 Method 8260b shall be used to analyzed any collected groundwater samples for volatile organic compounds. SW-846 Methods 8240 (for VOC's) and 8310 (for PNA's) was used to analyze the June 1998 groundwater samples. Pursuant to the Final (Promulgated) Update III to the USEPA's Test Methods for Evaluating Solid Waste Physical/Chemical Methods (SW-846), Third Edition, dated December 1996, Method 8240 has been removed. Update III replaced Method 8240 with Method 8260b. Therefore, SW-846 Method 8260b must be used in all future groundwater analysis events in order for analytical results to be considered valid.
12. As required by the Illinois EPA's March 31, 1998 letter (Condition 12, Log #C-689-M-5), all well completion reports, boring logs and copies of well abandonment forms for each temporary well point installed as listed below shall be submitted for the Illinois EPA's review. This information must be submitted with the information required by condition 10 above.

GL98-415G-01	GL98-105G-11	GL98-912G-21
GL98-415G-02	GL98-105G-12	GL98-912G-22
GL98-415G-03	GL98-105G-13	GL98-912G-24
GL98-415G-04	GL98-105G-14	GL98-912G-25
GL98-415G-05	GL98-105G-15	GL98-912G-26
GL98-415G-06	GL98-105G-16	GL98-912G-27
GL98-415G-07	GL98-105G-17	GL98-912G-28
GL98-415G-08	GL98-105G-18	GL98-912G-29
GL98-415G-09	GL98-105G-19	
	GL98-105G-20	

13. Closure activities should be completed by December 31, 1999. In accordance with 35 Ill. Adm. Code 725.215, when closure is complete a certification must be submitted to Illinois EPA by the owner/operator and an independent professional engineer that the hazardous waste management units at the facility have been closed in accordance with the specifications in the approved closure plan. This certification should be received at the Illinois EPA within sixty (60) days after closure, or by March 1, 2000. These dates may be revised if GLNTC finds that additional time is necessary to complete all required closure

activities and demonstrates to the Illinois EPA that it is attempting to complete closure in a timely manner.

The attached closure certification form must be used. Signatures must meet the requirements of 35 Ill. Adm. Code 702.126. The independent engineer should be present at all critical, major points (activities) during the closure. These might include soil sampling, soil removal, backfilling, final cover placement, etc. The frequency of inspections by the independent engineer must be sufficient to determine the adequacy of each critical activity.

The Professional Engineering Practice Act (225 Illinois Compiled Statutes 325/1-325/49) requires that any person who practices professional engineering in the State of Illinois or implies that he (she) is a professional engineer must be licensed under that Act. Therefore, any certification or engineering services which are performed for a closure plan in the State of Illinois must be done by an Illinois P.E.

Plans and specifications, designs, drawings, reports, and other documents rendered as professional engineering services, and revisions of the above must be sealed and signed by a professional engineer in accordance with Paragraph 325/14 of the Professional Engineering Practice Act.

As part of the closure certification, to document the closure activities at your facility in accordance with 35 Ill. Adm. Code 725.215, a Closure Documentation Report must be developed and submitted to Illinois EPA along with the closure certification statement which includes the following:

- a. Background information about the facility overall and the overall closure project.
- b. A description of the unit(s) closed (include scaled maps showing location of unit(s) within facility and layout of unit(s), information related to construction of the unit(s), identification of wastes managed in the unit(s)).
- c. A general discussion of all completed closure activities and what was accomplished as a result of completing these activities.
- d. The volume of waste, waste residue and contaminated soil (if any) removed. The term waste includes wastes resulting from decontamination activities.
- e. Scaled drawings showing the horizontal and vertical boundaries of the extent of any soil removal effort.

- f. A description of the method of waste handling and transport.
- g. The waste manifest numbers.
- h. Copies of the waste manifests.
- i. Information documenting the results of all sampling/analysis efforts. The goal of presenting this information should be to describe, in a logical manner, the activities and results associated with the sampling/analysis effort. At a minimum, this information must include:
 - (1) identification of the reason for the sampling/analysis effort and the goals of the effort;
 - (2) a summary in tabular form of all analytical data, including all quality assurance/quality control data;
 - (3) a scaled drawing showing the horizontal location from which all soil samples were collected;
 - (4) identification of the depth and vertical interval from which each sample was collected;
 - (5) a description of the soil sampling procedures, sample preservation procedures and chain of custody procedures;
 - (6) identification of the test method used and detection limits achieved, including sample preparation, sample dilution (if necessary) and analytical inferences;
 - (7) copies of the final laboratory report sheets, including final sheets reporting all quality assurance/quality assurance dates;
 - (8) visual classification of each soil sample in accordance with ASTM D-2488;
 - (9) a summary of all procedures used for quality assurance/quality control, including the results of these procedures; and
 - (10) a discussion of the data, as it relates to the overall goal of the sampling/analysis effort.

- j. Color photo documentation of closure. Document conditions before, during and after closure.
- k. A chronological summary of closure activities and the cost involved.

The original and two (2) copies of all certifications, logs, or reports which are required to be submitted to the Illinois EPA by the facility should be mailed to the following address:

Illinois Environmental Protection Agency
Bureau of Land -- #33
Permit Section
1021 North Grand Avenue East
Post Office Box 19276
Springfield, Illinois 62794-9276

- 14. The attached form entitled RCRA Interim Status Closure and Post-Closure Care Plans General Form (LPC-PA18) must be completed and accompany all information submitted to the Illinois EPA associated with the closure activities described in this letter. As noted on this form, two copies must accompany the original of all submittals, so that the information submitted can be distributed, as necessary to Illinois EPA personnel and regional offices.
- 15. If the Illinois EPA determines that implementation of this closure plan fails to satisfy the requirements of 35 Ill. Adm. Code 725.211, the Illinois EPA reserves the right to amend the closure plan. Revisions of closure plans are subject to the appeal provisions of Section 40 of the Illinois Environmental Protection Act.
- 16. Under the provisions of 29 CFR 1910, cleanup operations must meet the applicable requirements of OSHA's Hazardous Waste Operations and Emergency Response standard. These requirements include hazard communication, medical surveillance, health and safety programs, air monitoring, decontamination and training. General site workers engaged in activities that expose or potentially expose them to hazardous substances must receive a minimum of 40 hours of safety and health training off site plus a minimum of three days of actual field experience under the direct supervision of a trained experienced supervisor. Managers and supervisors at the cleanup site must have at least an additional eight hours of specialized training on managing hazardous waste operations.

Except as modified above, closure activities at the above-referenced facility must be carried out in accordance with 35 Ill. Adm. Code 725, Subpart G and Illinois EPA letters of March 31, 1998 (Log No. C-689-M-5); February 21, 1997 (Log No. 689-M-4); September 9, 1996 (Log No. C-689-M-3); September 28, 1995 (Log No. C-689-M-2); June 12, 1995 (Log No. C-689-M-1); and March 6, 1994, corrected June 6, 1994 (Log No. C-689).

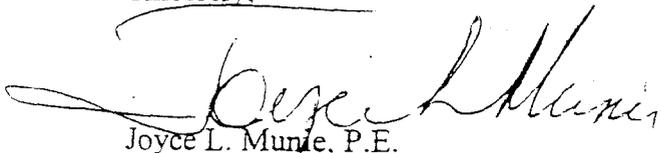
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Within 35 days of the date of mailing of this Illinois EPA's final decision, the applicant may petition for a hearing before the Illinois Pollution Control Board to contest the decision of the Illinois EPA, however, the 35-day period for petitioning for a hearing may be extended for a period of time not to exceed ninety days by written notice provided to the Board from the applicant and the Illinois EPA within the 35-day initial appeal period.

Work required by this letter, your application or the regulations may also be subject to other laws governing professional services, such as the Illinois Professional Land Surveyor Act of 1989, the Professional Engineering Practice Act of 1989, the Professional Geologist Licensing Act, and the Structural Engineering Licensing Act of 1989. This permit does not relieve anyone from compliance with these laws and the regulations adopted pursuant to these laws. All work that falls within the scope and definitions of these laws must be performed in compliance with them. The Illinois EPA may refer any discovered violations of these laws to the appropriate regulating authority.

Should you have any questions related to groundwater about this project, please contact Vickie Broomhead at 217/524-3285; any other questions regarding this project should be directed to William T. Sinnott, II at 217/524-3310.

Sincerely,



Joyce L. Munnie, P.E.
Manager, Permit Section
Bureau of Land

^{WTS}
JLM:WTS:bjh\993231S.WPD

^{APR 26 1990}
Attachment: LPC-PA18
Closure Certification Statement
TACO Requirements for RCRA Projects

bcc: Maywood Region
Vickie Broomhead
Bill Sinnott
Jim Moore

Bureau File