

US ARMY
FORT MONMOUTH NJ

DIRECTORATE OF
ENGINEERING AND HOUSING
ENVIRONMENTAL OFFICE

UNDERGROUND STORAGE TANK
CLOSURE PLAN

BUILDING 108

NJDEP# 0090010 - 7



PREPARED BY

CHARLES M. APPLEBY
ENVIRONMENTAL PROTECTION SPECIALIST
NJDEPE UST SUBSURFACE CERTIFICATION # 002056

JULY 26, 1993

U.S. Army
DEH Bldg. 167
SELFM-EH
Fort Monmouth, NJ 07703

Date: 26, JULY 1993
Building #: 108
NJDEPE UST Reg. #:0090010 - 7

**UNDERGROUND STORAGE TANK (UST)
DECOMMISSIONING / CLOSURE PLAN**

A. General Requirements:

All activities associated with the decommissioning of any underground storage tank (UST) shall comply with all applicable Federal, State and Local laws and ordinances. These laws include but are not limited to: NJAC 7:14B et seq., 5:23 et seq. and OSHA 1910.146, 1910.120. All permits including but not limited to this document, the NJDEP Closure Plan Approval Package, etc..., shall be posted on site for inspection. The Contractor conducting the decommissioning activities shall be registered and certified by the NJDEP for performing said activities.

B. Safety and Health:

Before, during, and after all activities, the work site shall be made free of all hazards which may pose a threat to the health and safety of all personnel who are involved with, or are affected by, the decommissioning of the UST. All areas which pose, or may be suspected of posing, a vapor hazard shall be monitored by a qualified individual utilizing approved equipment. This individual will ascertain if the area is properly vented to render the area safe, as defined by OSHA. THIS SITE IS AN NJDEPE REPORTED SPILL SITE AND ALL OSHA REQUIREMENTS WILL BE FOLLOWED. THIS INCLUDES A SITE SPECIFIC HEALTH AND SAFETY PLAN. ALL WORKERS WILL HAVE A MINIMUM OF 40 HOURS H&S TRAINING.

C. UST Excavation:

1. All underground obstructions (utilities,... etc.) shall be marked out by the contractor performing the excavation.
2. All activities shall be carried out with the greatest regard to safety and health and the safeguarding of the environment.
3. All excavated soils will be evaluated as to the possibility of contamination. Soils suspected to be contaminated with product shall be staged on poly-sheeting separate from soils not suspected to be contaminated (see section E Excavated Soils management).
4. Surface materials (ie. asphalt, concrete, etc...) shall be excavated and staged separate from all soils.

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DEH Bldg. 167
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NJDEPE UST Reg. #:0090010 - 7

5. Soil will be excavated to expose the UST and associated piping. The piping shall not be removed/disturbed until all free product is drained into the UST. The UST will be rendered vapor free by purging or addition of dry ice prior to any cutting or access. After the removal of the associated piping, a manway will be made in the UST to allow for the proper cleaning of the UST. The UST will be completely emptied of all liquids prior to removal of the UST from the ground. All of the openings in the tank will be plugged except for one vent hole.

6. After the UST is removed from the ground, it will be staged on poly-sheeting and examined for corrosion holes. The presence or absence of corrosion holes will be documented by the Sub-Surface Evaluator. If corrosion holes are observed, or if upon inspection of the excavation site evidence of a discharge to the environment exists, the NJDEPE hotline shall be notified at (609)292-7172.

7. In the event of a discharge to the environment, additional soils will be excavated as needed. Site assessment activities under the direct supervision of the Sub-Surface Evaluator will determine to what extent the contractor will excavate.

8. After completion of the Site Assessment activities, the excavation will be backfilled to grade with noncontaminated soils from the site and additional certified clean fill provided by the contractor.

D. UST Transport / Disposal:

1. The tank will be transported and disposed / recycled in compliance with all applicable regulations and laws.

2. The contractor shall label the tank with the following information:

- a. site of origin
- b. generator / contact person
- c. NJDEPE UST ID number
- d. product previously stored
- e. name of transporter / contract person
- f. destination site / contact person
- g. other information as required

U.S. Army
DEH Bldg. 167
SELFM-EH
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Building #: 108
NJDEPE UST Reg. #:0090010 - 7

3. The contractor shall provide Fort Monmouth with sufficient documentation certifying that transport / disposal (recycling) of the tank was completed according to all applicable Federal and State regulations.

B: Excavated Soils Management:

1. All excavated soils suspected to be contaminated will be transported, by the contractor, to a designated staging area within Fort Monmouth. The designated area will contain the soils and direct all stormwater runoff away from any contact with the soil.
2. All soils stored in the designated staging areas will be maintained in piles no larger than 100 cubic yards each. Each pile will be lined and covered with poly-sheeting and weighted to ensure proper containment.
3. Each soil pile will be sampled and analyzed for waste classification as outlined in the NJDEPE document titled "Management of Excavated Soils" dated August 17, 1990.
4. All soils categorized as Hazardous waste or nonhazardous waste will be managed as such, in accordance with N.J.A.C. 7:26-1 et seq..
5. All soils that contain levels of contaminants below the Category 3 soil limits will be used in accordance with Federal and State requirements.

F. Changes / Authorizations:

All deviations in activities related to the closure of a UST as outlined in this document shall require prior authorization from the NJDEPE-DWR-BUST.

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SELFM-EH
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Building #: 108
NJDEPE UST Reg. #:0090010 - 7

**UNDERGROUND STORAGE TANK (UST)
SITE ASSESSMENT PLAN**

General:

This site specific assessment plan will be managed and carried out by U.S. Army DEH and Serv-Air Inc. personnel. All analyses will be performed and reported by NJDEPE certified testing laboratories. All monitoring wells will be installed by NJDEPE licensed well drillers. All sampling will be performed under the direct supervision of a NJDEPE Certified Sub-Surface Evaluator and according to the methods described in the 1992 NJDEP Field Sampling Procedures Manual. All records of the Site Assessment will be maintained by DEH and submitted to the NJDEPE-DWR-Bust in accordance with NJAC 7:14B-9.2 and 9.3.

**PHASE I
UST DECOMMISSIONING**

A. Initial Soil Excavation:

1. Soil will be excavated from the UST site and screened utilizing a Photo Ionization Detector (PID) and/or a Flame Ionization Detector (FID).
2. All soils suspected to be contaminated will be treated in accordance with the UST Decommissioning Plan.

B. Continued Excavation:

1. Excavation of suspect contaminated soil will continue until one of the following situations is encountered:
 - a. groundwater
 - b. excavated soils no longer exhibit characteristics of contamination determined in the field as determined by the Sub-Surface Evaluator
 - c. excavation equipment can no longer remove soils due to the depth of the excavation or other restrictive cause.

U.S. Army
DEH Bldg. 167
SELFM-EH
Fort Monmouth, NJ 07703

Date: 26, JULY 1993
Building #: 108
NJDEPE UST Reg. #:0090010 - 7

**PHASE II
Site Survey**

A. Vapor Screening:

1. An individual under the direct supervision of a NJDEPE Sub-Surface Evaluator and trained in the operation of a FID and/or PID shall evaluate the sides and pit bottom of the excavation.
2. All observed instrument readings will be documented and included in the Site Assessment Survey report. This documentation will include all factory and daily calibrations of the instrument.

**PHASE III
Site Sampling**

A. Soil samples will be collected from the UST excavation and analyzed according to the following schedule:

PRODUCT	SIZE (gal.)	# TPHC SAMPLES	VOA +15 (if TPHC >10000)
#2 HEATING OIL	1000	6	6
FIELD BLANKS		1	1
DUPLICATE SAMPLES		1	1
TOTAL # SAMPLES		8	8

U.S. Army
DEH Bldg. 167
SELFM-EH
Fort Monmouth, NJ 07703

Date: 26, JULY 1993
Building #: 108
NJDEPE UST Reg. #:0090010 - 7

B. Soil samples will be collected from the Pipe excavation at the same time as UST pit sampling and analyzed according to the following schedule:

PRODUCT	LENGTH OF PIPING	# TPHC SAMPLES	VOA +15 (if TPHC >10000)
#2 HEATING OIL	9 FEET	1	1
FIELD BLANKS		0	0
DUPLICATE SAMPLES		0	0
TOTAL # SAMPLES		1	1

C. All TPHC samples will be taken in the native soil below the bedding material. The sample locations should be along the mid-lines of the tank outline except for at least two of the samples which should be taken within one foot of each of the two highest field survey readings. All of the soil samples should be discrete samples taken within a 6" vertical interval. All samples will be collected by utilizing laboratory decontaminated stainless steel trowels dedicated to each sample location. All VOA+15 samples will be taken within 24 hours of UST excavation at a depth of 0-6" with the use of a laboratory decontaminated stainless steel core sampler. Each VOA+15 sample will be screened with an FID and/or PID and recorded immediately after collection.

D. The excavations of USTs containing #2 Fuel Oil will remain open until laboratory results determine all TPHC samples are less than 1000 ppm. If levels greater than 1000 ppm are reported, further excavation and resampling may be requested by the Sub-Surface Evaluator for those contaminated areas. If further excavation is not possible, additional VOA+15 analyses on 25% of the TPHC samples with the highest results will be performed and the excavation will be filled to grade with certified clean fill. In the case of USTs containing gasoline, all samples will be sampled for TPHC and VOA+15. If TPHC results are greater than 100 ppm additional excavation and subsequent sampling may be requested by the Sub-Surface Evaluator.

U.S. Army
DEH Bldg. 167
SELFM-EH
Fort Monmouth, NJ 07703

Date: 26, JULY 1993
Building #: 108
NJDEPE UST Reg. #:0090010 - 7

**PHASE IV
Groundwater Monitoring**

- A. Monitoring wells will be installed within the UST field at all UST locations where the tanks(s) being closed stored gasoline, kerosene, jet fuel and/or site specific factors indicate a know or potential impact of soil contamination exists.
- B. Groundwater monitoring wells will be installed by a New Jersey licensed Well Driller in accordance with N.J.S.A 58:4A-4.1 et seq.. The well driller will obtain all required permits prior to well installation.
- C. All monitoring wells will be sampled as described in the NJDEP Field Sampling Procedures Manual, 1992.
- D. All monitoring wells will be analyzed in accordance with the following table:

PRODUCT	NUMBER OF MONITORING WELLS REQUIRED	EPA METHOD	EPA METHOD
		624 (A)	625 (B)
#2 HEATING OIL	0	0	0
FIELD BLANKS		0	0
DUPLICATE SAMPLES		0	0
TOTAL # SAMPLES		0	0

Note (A): Sample must be analyzed by EPA Method 624 + 15 (GC/MS plus identification of non-targeted compounds) modified to include calibration for xylene, methyl tertiary butyl ether (MTBE), tertiary butyl alcohol (TBA) and LEAD.

Note (B): Sample must be analyzed by EPA method 624 + 15 (GC/MS plus identification of non-targeted compounds) modified to include calibration for xylene; and EPA Method 625 + 15 (base/neutral extractable, extractable organics).

- C. All monitoring well sampling will be conducted according to methods described in the NJDEP Field Sampling Procedure Manual 1992.
- D. All laboratory analyses will be performed by NJDEP certified Laboratories using approved methods and follow all Quality Control/Assurance procedures

DIRECTORATE OF ENGINEERING AND HOLDING
FORT MONMOUTH, NEW JERSEY 07703-5108

DATE: 1-26-93

Building Number: B108

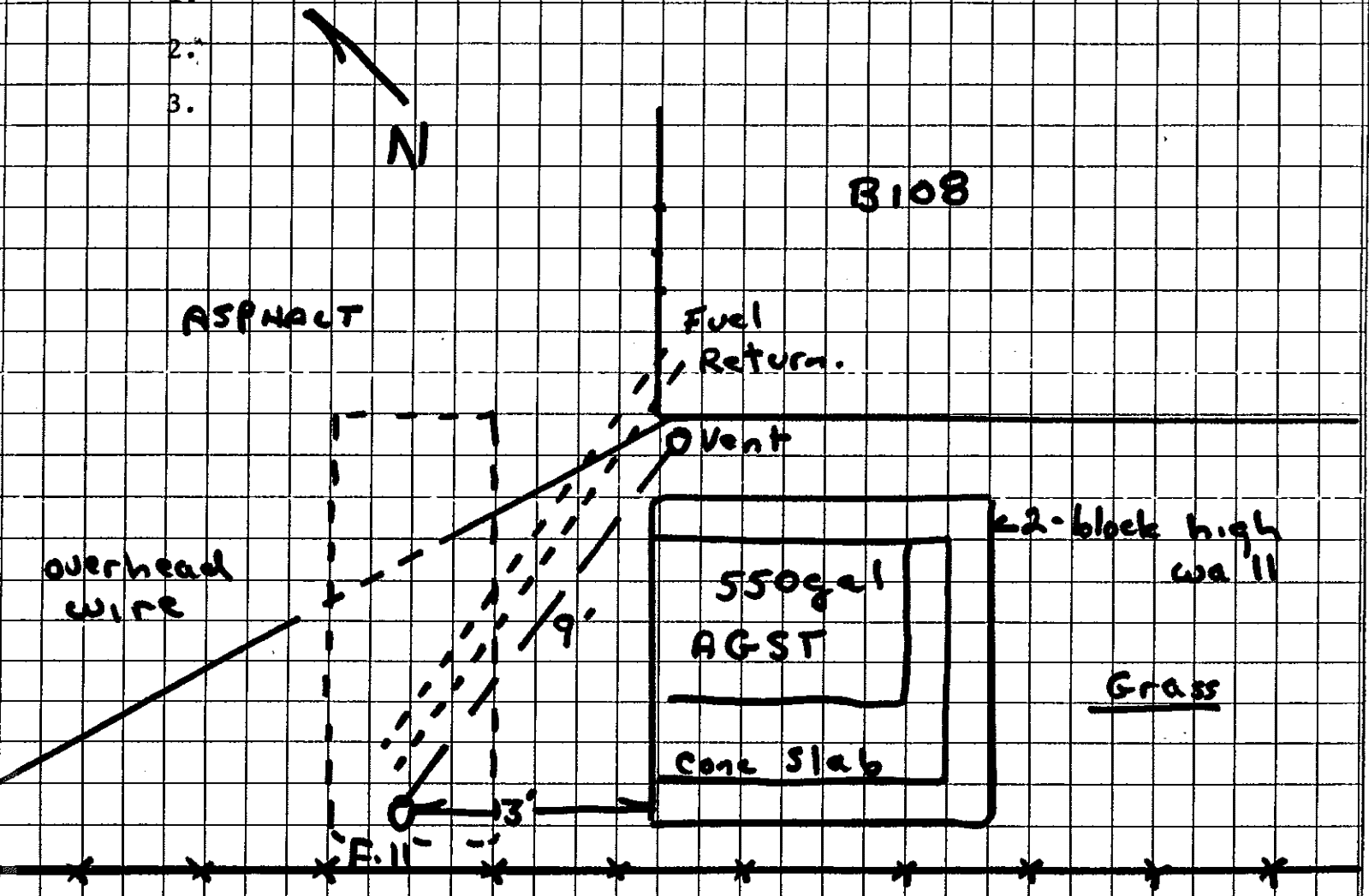
Tank Number: 90010-7

Tank Size: 1000gal

Contents: #2 fuel oil

Remarks:

- 1.
- 2.
- 3.



STATE OF NEW JERSEY
DEPARTMENT OF ENVIRONMENTAL PROTECTION

UST # _____
Date Rec'd _____
CA # _____
Staff _____

DIVISION OF WATER RESOURCES
BUREAU OF UNDERGROUND STORAGE TANKS
TANK MANAGEMENT SECTION

CN 029, 401 EAST STATE STREET
TRENTON, N.J. 08625-0029

UNDERGROUND STORAGE TANK CLOSURE PLAN
APPROVAL APPLICATION

*Under the provisions of the Underground Storage
of Hazardous Substances Act
in accordance with N.J.A.C. 7:14B-9 et seq.*

This application form shall be used by all applicants who plan to close Underground Storage Tank Systems pursuant to N.J.A.C. 7:14B-9 et seq.

INSTRUCTIONS:

- Before completing application form please refer to the attached Application Instruction Sheet.
- Please print legibly or type.
- Fill in all appropriate blanks. This application form requires that additional sheets be attached for some of the information requested. You may call the Bureau of Underground Storage Tanks/Tank Management Section (609/984-3156) for assistance.
- Return one original of this form (including all attachments required) and a copy of the complete Standard Reporting Form (SRF) to the address above. You must sign all forms as required and attach a check for the proper fee (see the fee schedule on Page 3). Make check payable to the Treasurer, State of New Jersey.
- If the subject facility is not registered the Closure Plan will not be approved.
- Please Note: Make sure that all required information on the Standard Reporting Form (SRF) is submitted. The SRF and this Closure Plan Application must be submitted together.

Date of Application 7/26/93

Bldg. 108

FACILITY REGISTRATION #

0090010 - 7

I. FACILITY NAME AND ADDRESS

U.S. Army Fort Monmouth

DEH Bldg. 167

Fort Monmouth NJ 07703

Telephone No. (908) 532-1475

II. THIS CLOSURE PLAN IS FOR:

A. Substance stored in subject tank(s):

1. Petroleum Products

Indicate Type of Product Heating oil #2
(Write out product name; e.g.)

- a. Gasoline, Jet Fuel, or Kerosene
- b. Heating Oil (#2, 4, 6), or Diesel
- c. Waste Oil (Please indicate total storage capacity of waste oil at the facility [including the tank(s) being closed]) _____ gals.

2. Hazardous Substances other than Petroleum Products (Describe)

Indicate Type of Product _____
(Write out product name; add sheet if necessary.)

B. Type of Activity: (Circle one)

1. Abandonment of Tank(s)

Attach the closure plan for abandonment, as required by N.J.A.C. 7:14B-9.2(b) or 9.3(b), which must contain the following items:

- a. Implementation schedule (3 copies per N.J.A.C. 7:14B-9.2(a)3)
- b. Site assessment plan
- c. Tank decommissioning plan
- d. A site map
- e. Attach all justification for abandonment-in-place as required by N.J.A.C. 7:14-9.1(d). Attach the certification statement (on the back page) for abandonment-in-place, if applicable.

2. Removal of Tank(s)

Attach the closure plan for removal as required by N.J.A.C. 7:14B-9.2(b) or 9.3(b). The following items must be included:

- ✓ a. Implementation schedule (3 copies)
- ✓ b. Site assessment plan
- ✓ c. Tank decommissioning plan
- ✓ d. A site map

3. Temporary Closure

Indicate which situation applies and attach appropriate documentation.

- a. _____ Temporary closure for 12 months or less is subject to requirements of N.J.A.C. 7:14B-9.1(a).
- b. _____ Requesting an extension of temporary closure for more than 12 months per N.J.A.C. 7:14B-9.1(b) must perform site assessment and submit results.

4. Change in Service

Attach documentation that the tank system being changed from the storage of a regulated to a non-regulated substance has been emptied and cleaned and that a site assessment has been performed, as required by N.J.A.C. 7:14B-9.1(e).

III. FEE SCHEDULE

Check the activities below that apply, calculate the Total Fee and submit that amount with this application. Make checks payable to Treasurer, State of New Jersey. Public schools and religious and charitable institutions are exempt from the fees. The owner or operator shall submit a separate fee for each excavation where an activity occurs.

A. <u>Activities Which Require a Site Assessment</u>	<u>120.00</u>	\$ 120.00
1. Removal or Abandonment without exemption to site assessment requirement		
2. Change in service from a regulated substance to a non-regulated substance		
3. Extension of period of Temporary Closure		
B. <u>Activities Not Requiring a Site Assessment</u>	<u> </u>	\$ 80.00
1. Removal or abandonment with valid exemption		
C. <u>Additional Activities</u>		
1. Change in service from one regulated substance to another regulated substance		NO FEE

APPLICATION REVIEW FEE (activities in A, B, C) + \$ 50.00

TOTAL FEE DUE \$ 170.00

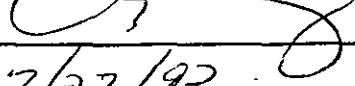
IV. THE BUREAU OF UNDERGROUND STORAGE TANKS WILL REVIEW THE CLOSURE PLAN FOR COMPLETENESS AND APPROPRIATENESS AS SPECIFIED IN SUBCHAPTER 9 OF THE UST REGULATIONS. PLAN APPROVAL WILL INDICATE THAT THE OWNER OR OPERATOR MAY PROCEED WITH THE CLOSURE. FINAL APPROVAL OF THE CLOSURE IS NOT IMPLIED. ALL APPROPRIATE AND APPLICABLE PERMITS, LICENSES AND CERTIFICATES REQUIRED FOR ANY OF THE ABOVE ACTIVITIES FROM ANY LOCAL, STATE AND/OR FEDERAL AGENCIES MUST BE OBTAINED SEPARATELY FROM THIS APPLICATION.

THE SITE ASSESSMENT SAMPLING AND ANALYTICAL REQUIREMENTS WILL BE SENT WITH THE APPROVAL TO PROCEED.

NOTE: Notice of Approval to Proceed or Disapproval will be mailed to the facility address unless some other address is specified here.

SIGNATURE OF CONTACT PERSON

This application form must be signed by a contact person of the owner or operator of the subject facility. The contact person should have overall knowledge of tank decommissioning procedures and the site assessment requirements applicable to the tank closure which is the subject of this application.

NAME (Print or Type) CHARLES M. APPLEBY SIGNATURE 
TITLE ENVIRONMENTAL PROTECTION SPEC. DATE 7/27/93

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 Fort Monmouth, NJ 07703

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as described for each method.

**UNDERGROUND STORAGE TANK
 REMOVAL / ABANDONMENT
 IMPLEMENTATION SCHEDULE**

Facility Name: U.S. Army, Fort Monmouth
 Facility Location: BLDG. ~~689-B~~ 108
 Fort Monmouth, Monmouth County NJ 07703

Owners Mailing Address: DEH Bldg. #167
 Fort Monmouth, NJ 07703

Owners Name: U.S. Army

Contact Person: Charles Appleby
 Phone Number: (908) 532-6224

UST Registration Number: 0090010

TANK ID #	PRODUCT	CAPACITY (gal.)	SITE ASSESS. REQUIRED	MONITORING WELL REQ.
7	#2 FUEL OIL	1000	YES	NO

SCHEDULE

ACTIVITY	START DATE	COMPLETION
Removal.....	9/9/93	9/9/93
Site Assessment.....	9/9/93	9/9/93
Monitoring Well Installation.....	n/a	
Site Assessment Analytical Results....	9/10/93	9/10/93
Monitoring Well Analytical Results....	n/a	
UST Site Assessment Summary.....	10/10/93	10/10/93