



October 19, 1998

Oct 20 10 23 AM

*Williston
PID*

Ms. Susan E. Thayer
Underground Storage Tank Program
Waste Management Division
Vermont Department of Environmental Conservation
103 South Main Street, West Building
Waterbury, Vermont 05671-0404

Re: Underground Storage Tank Removal and Site Assessment at Cumberland Farms, Inc.
Facility #V0064, Fair Haven, Vermont (UST Facility - ID# 978).

Dear Ms. Thayer:

Lincoln Applied Geology, Inc. (LAG) in conjunction with Cumberland Farms, Inc. (CFI) completed the excavation, removal, and closure of two underground storage tanks (USTs) and associated piping on October 9, 1998 at the abovementioned former CFI facility (**Figure 1**) in Fair Haven, Vermont. The removal and closure of the USTs was performed because CFI has sold and no longer owns the property. Approximately 60 tons (40 yd³) of contaminated soils were removed from the tank excavation. Excavation of these soils resulted in removal of all the petroleum contamination of soils from the former UST and piping area. These contaminated stockpiled soils are scheduled to be taken to MTS Environmental in Epsom, New Hampshire for asphalt batching.

The UST Permanent Closure Form, photoionization detector (PID) data from soils, photographs, and the Off-Site Soil Treatment Request Form are attached as **Appendices A, B, C, and D** respectively. The permanent closure form contains a sketch map of the site including buildings, location of the former USTs, and other pertinent features related to the UST assessment (**Appendix A**).

CFI subcontracted Cyn Environmental Services (CES) to purge and clean the USTs. CES purged the USTs in place utilizing a blower on their vacuum truck. The USTs were properly purged prior to opening and cleaning. After it was determined that the air space within each UST was safe, (i.e. the lower explosive limit was measured at less than 10%), each UST was cut open. A CES employee on supplied air then entered the UST and properly cleaned it. After cleaning, both USTs were transported to Mac's Steel in Rutland, Vermont for use as scrap metal. During UST cleaning, 330 gallons of residual petroleum product and one 55-gallon drum of sludge were generated. These liquid and solid wastes were transported for proper disposal at Environmental Compliance Corporation in Portland, Maine and Heritage Environmental Corporation Inc., in Williston, Vermont, respectively.

After cleaning and purging them, the USTs were removed by excavating the three feet of fine to medium sand directly atop and beside the USTs, and then rolling and lifting them out of the excavation. During the UST removal process, soils were screened with a properly calibrated PID with 10.2 electron volt (eV) lamp. Soils containing contaminant vapor levels above background (BG) were removed from the excavation and temporarily stockpiled on-site. All stockpiled soils were placed on and covered with 6 mil polyethylene plastic. These contaminated soils are

scheduled to be transported to MTS for asphalt batching. Approval to transport them was granted by Mr. Chuck Schwer of the Sites Management Section.

The following is a summary of the inspection that was completed on each tank.

UST #001: A 5,000 gallon, single wall steel, diesel UST installed in 1970.

- The UST was noted in fair condition.
- No holes or signs of leakage were found during the UST inspection.
- All associated piping was noted in good condition.
- All contaminated soils were removed from the UST excavation area.
- Ground water was not encountered during the excavation and/or UST removal activities to a depth of 8 feet below grade.

UST #002: A 5,000 gallon, single wall steel, diesel UST installed in 1970.

- The UST was noted in good condition.
- No holes or signs of leakage were found during the UST inspection.
- All associated piping was noted in good condition.
- All contaminated soils were removed from the UST excavation area.
- Ground water was not encountered during the excavation and/or UST removal activities.

Product piping locations are shown on the site sketch in **Appendix A**. The piping was noted in good condition with a moderate amount of rust. No holes or perforations were noted during the pipe inspections. Their associated soils were also screened with a PID and the data is attached as **Appendix B**. Soils with PID readings above BG levels were also removed from the excavation and temporarily stockpiled on-site.

Following all excavation work and removal of the USTs, soil samples were collected from beneath both ends of each UST, a composite of the four sidewalls in the excavation, and a composite sample from the contaminated soil stockpile. The samples were collected to demonstrate that during the UST closure all petroleum related contamination was removed from the UST excavation and beneath the distribution piping. Once LAG has received and reviewed the analytical results, they will be forwarded to you along with a brief summary of the findings.

Results of the PID assay work completed on the excavated soils indicate that soil near the dispenser island and in the proximity of the UST fill pipes were slightly contaminated by diesel fuel product. We believe that this contamination resulted from small scale overfills or spills while refilling the USTs and or vehicles. PID data collected during the UST excavation clearly indicates that all the contamination was removed from the excavation. Ground water was not encountered during excavation activities to a depth of 8 feet below grade.

During the UST assessment, LAG conducted a survey of the site prior to the removal of the contaminated soils to determine if any potential receptors had been impacted. Surrounding



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Environmental Consultants

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residential/business structures are all served by municipal water and sewer. PID assays of the indoor ambient air in the garage and office areas yielded only BG levels. Based on observations made and data collected during the UST closure, we believe that no sensitive receptors have been impacted by the petroleum contamination prior to its removal.

In conclusion, the collected data indicates that all diesel petroleum contamination of soils was removed from the excavation during UST closure activities. We believe this contamination was related to historical small scale spills and overfills related to the UST fills and dispenser island area. Based on data collected during the UST closure, it is our professional opinion that no additional work be performed at this site.

If you have any questions or comments please do not hesitate to call me or Richard Vandenberg, LAG Project Manager, at 453-4384.

Sincerely,
Lincoln Applied Geology, Inc.



Jason S. Barnard
Geologist

JSB/njp
enclosure

cc: Mr. Paul Dandrade
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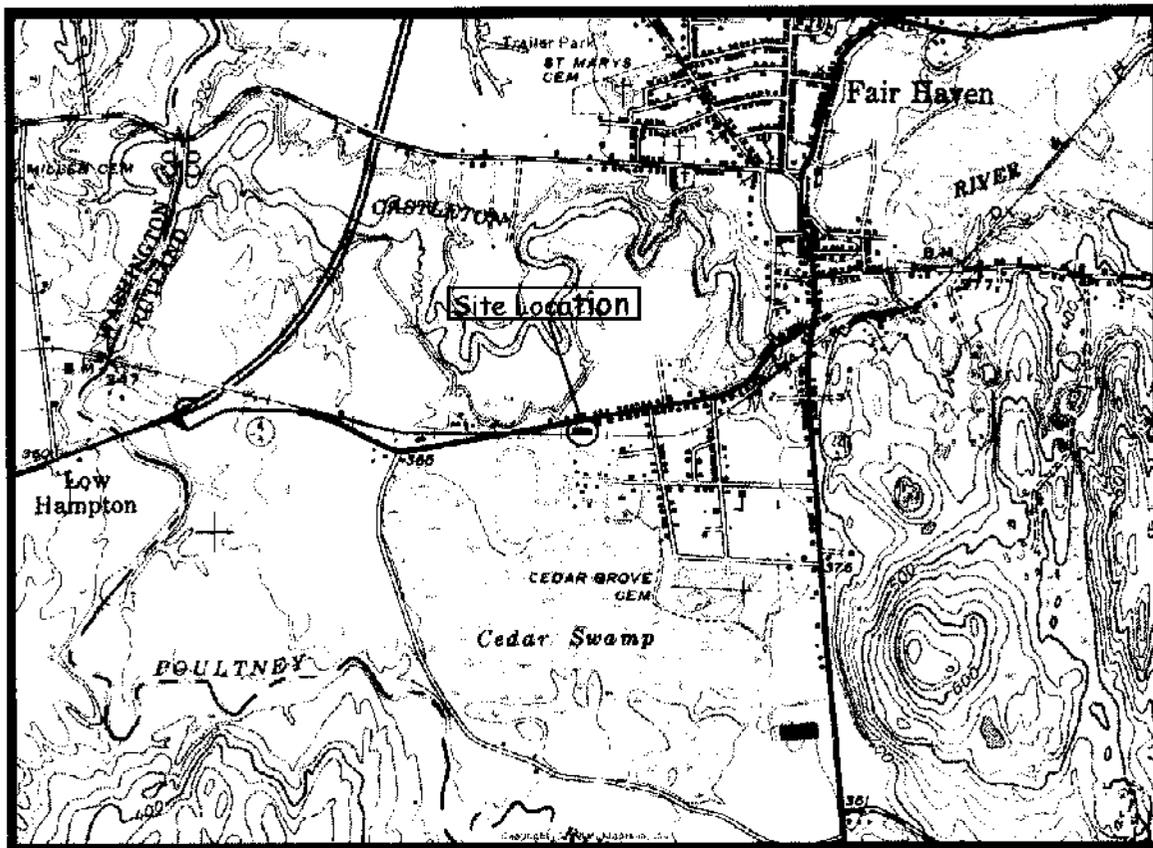


Lincoln Applied Geology, Inc.
Environmental Consultants

Figure 1

Cumberland Farms, Inc.
UST Facility, ID #978, Station # V0064
Fair Haven, Vermont

GENERAL LOCATION MAP



Scale 1" = 2,000'

THORN HILL, N. Y. - VT.

NEW YORK

43073-E3-TF-024

1946
PHOTOREVISED 1972

QUADRANGLE LOCATION DMA 6371 III SE-SERIES V821

98-2515

Appendix A
**Underground Storage Tank Permanent
Closure Form**

UNDERGROUND STORAGE TANK PERMANENT CLOSURE FORM

Vermont Agency of Natural Resources, Department of Environmental Conservation, Waste Management Division
 103 South Main Street, West Building, Waterbury, Vermont 05671-0404, Telephone: (802) 241-3888

Agency Use Only

Date of scheduled Activity 9 / 30 / 98 Facility ID # _____ Closing: tanks, piping, system
 DEC initials: _____ SMS # _____ DEC evaluator: 5

Section A. Facility Information:

Name of facility: Cumberland Farms, Inc. Number of employees: 0
 Street address: 60 Prospect Street Town/city Fair Haven
 Owner of UST(s) to be closed: Cumberland Farms, Inc. Contact (if different than owner): Paul Dandrade
 Mailing address of owner: 777 Dedham Street, Canton, Massachusetts
 Telephone number of owner: (800) 225-9702 Contact telephone #: (800) 225-9702 ext. 3416

Section B. UST Closure Information: (please check one)

Reason for initiating UST closure: Suspected Leak Liability Replacement X Abandoned

USTs (piping is considered a part of UST system) undergoing permanent closure. Include condition of USTs

UST #	Product	Size (gallons)	Tank age	Tank Condition	Piping age	Piping condition
001	diesel	5,000	28 years (1970)	Fair	28 years (1970)	Good
002	diesel	5,000	28 years (1970)	Good	28 years (1970)	Good

Which tanks, if any, will be closed in-place: USTs# n/a Authorized by: n/a Date: - / - / -
 Disposal/destruction of removed UST(s): Location Mac's Steel, Rutland, VT Method scrap metal Date: 10/9/98
 Amount (gal.) and type of waste generated from USTs: 330 gals of liquid / 1-55 gal drum of sludge
 (tank contents are hazardous wastes unless recovered as usable product)
 Tank cleaning company (must be trained in confined space entry) CYN Environmental Services, Inc.
 Certified hazardous waste hauler: CYN Environmental Ser. Generator ID number: VTP000002078

Section C. Initial site characterization:

Work in this section must be completed by a professional environmental consultant or hydrogeologist with experience in environmental sampling for the presence of hazardous materials. A full report from the consultant must accompany this form.

Excavation information: (some tank pulls require more than one excavation)

Tank(s) # and Excavation (A,B,C,etc)	Depth (ft)	Excavation size(ft ²)	Peak PID reading	Depth of Peak (ft)	Avg PID reading	Bedrock Depth (ft)	Groundwater encountered? (y/n) and at depth (ft)	Soil type
A	8'	600	32	2'	3.8	no	no	brown, fine to medium, sand, trace silt

Dig Safe Number: 984102084

PID information:

Make: HNU Systems Model: HW-101 Calibration information (date, time, gas): 10/7/98, 1300, isobutylene

Locate all readings and samples on site diagram

Number of soil samples collected for laboratory analysis? 6 results due date 10/16/98
 Have any soils been polyencapsulated on site? Yes X (#yds³ 40 PID range above zero ^{low} 0.3 - ^{peak} 32) No
 Have any soils been transported off site? Yes X list amount (yds³): 40 No
 Location transported to: MTS, Epsom, NH DEC official who approved: Chuck Schwer
 Amount of soils backfilled(yds³): 10 yds PID range above zero ^{low} BG - ^{peak} BG **BG = Background (0.0 ppm)**
 Have limits of contamination been defined? Yes X No
 Is there any other known contamination on-site? Yes No X Comments: _____

Free Phase product encountered? Yes : thickness sheen No X
 Groundwater encountered? Yes depth(ft) No X
 Are there existing monitoring wells on-site? Yes how many: (locate on site diagram) No X
 Have new monitoring wells been installed? Yes how many: (locate on site diagram) No X
 Samples obtained from monitoring wells for lab analysis? Yes results due date / / No X

Is there a water supply well on site? Yes (check type: shallow rock spring) No X
 Number of public water supply wells are located within a 0.5 mile radius? 0 min. distance (ft.):
 Number of private water supply wells located within a 0.5 mile radius? 0 min distance (ft.):

Receptors impacted? soil indoor air ambient air groundwater surface water water supply

No receptors have been impacted. All contamination was removed from the excavation.

Facility ID# 978

Section D: Tanks/Piping Remaining/installed

Regardless of size, include USTs at site as to *status, e.g. "abandoned", "in use", or "to be installed". (Most installations require permits and advance notice to this office.)

UST#	Product	Size(gallons)	Tank age	*Tank status	Piping age	*Piping Status

X There are no other tanks at this site.

Section E. Statements of UST closure compliance:

(must have both signatures or site assessment not complete)

As the party responsible for compliance with the Vermont UST Regulations and related statutes at this facility, I hereby certify that the all of the information provided on this form is true and correct to the best of my knowledge.

Jason D. Barnard Agent for CFI
Signature of UST owner or owner's authorized representative

10/19/98
Date of signature

As the environmental consultant on site, I hereby certify that the site assessment requirements were performed in accordance with DEC policy and regulations, and that information which I have provided on this form is true and correct to the best of my knowledge.

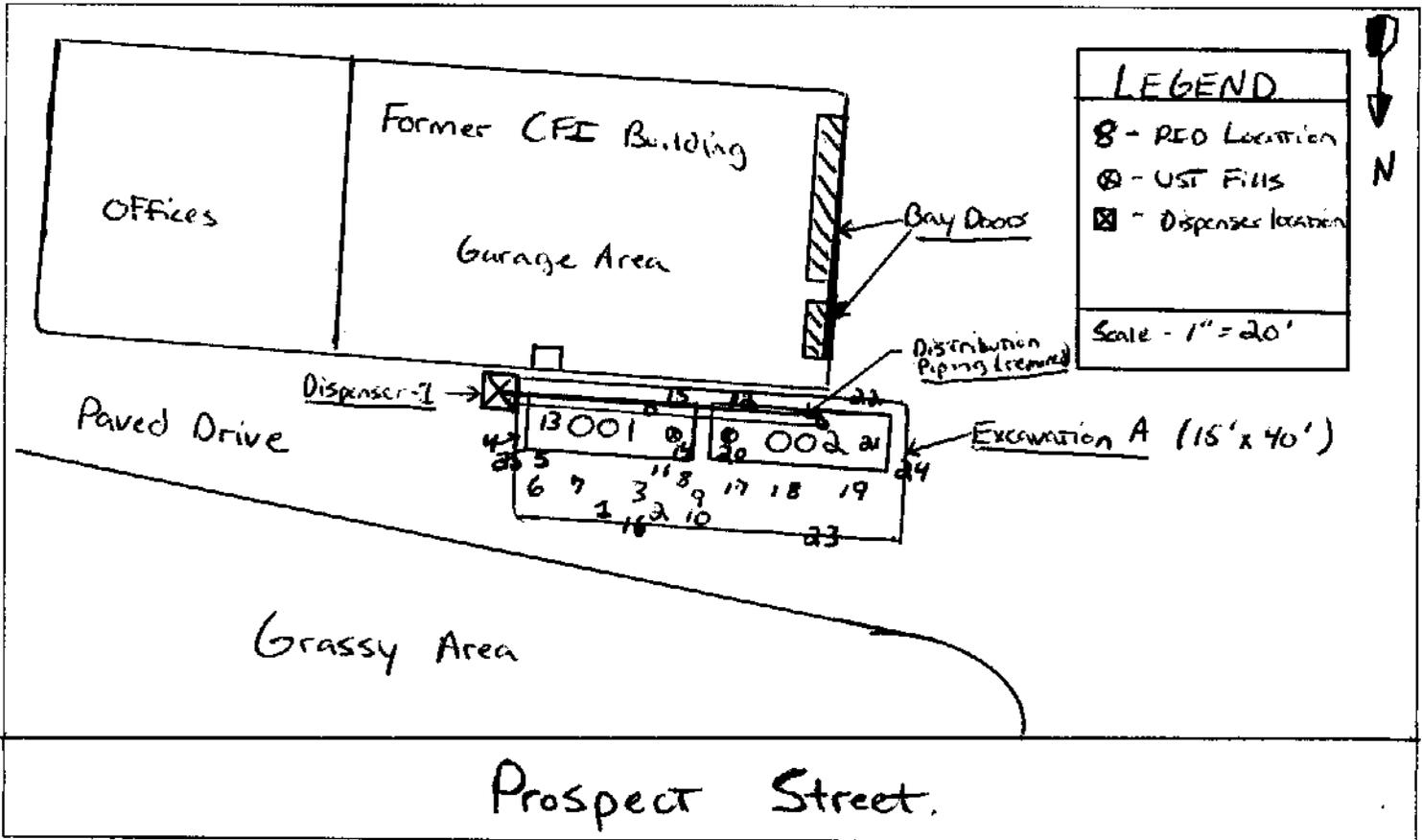
Jason D. Barnard
Signature of Environmental Consultant
Company: Lincoln Applied Geology, Inc.
Telephone #: (802) 453-4384

10/13/98
Date of signature

Date of Closure: 10/9/98 Date of Assessment 10/9/98

Return form along with complete narrative report and photographs to the Department of Environmental Conservation(DEC), Underground Storage Tank Program within 72 hours of closure.

Site diagram



This Closure Form may only be issued for the facility and the date indicated at top of page 1. **Changes in the scheduled closure date should be phoned in at least 48 hours in advance.** Both the yellow and white copies of this form must be returned to the address on the top of page 1 of this form; the pink copy should be retained by the UST owner. A written report from an environmental consultant covering all aspects of closure and site assessment, complete with photographs and any other relevant data, must accompany this form. All procedures must be conducted by qualified personnel, to include training required by 29 CFR 1910.120. Documentation of all methods and materials used must be adequate. All work must be performed in compliance with DEC policy "UST Closure and Site Assessment Requirements" as well as all applicable statues, regulations, and additional policies. The DEC may reject inadequate closure forms and reports.

Appendix B
Soil PID Levels

October 9, 1998 Assessment for UST Removal
Soil PID Levels (ppm)

USTs and Distribution Piping Excavation (Excavation A)

Location #	Depth (ft)	PID (ppm)
1	2	18
2	4	BG
3	5	0.3
4	2	BG
5	2	32
6	4	8.8
7	7	BG
8	7	4.8
9	3	8.2
10	6	9.4
11	5	8.6
12	6	3.8
*13	8	BG
*14	8	BG
#15	5	BG
#16	6	BG
17	5	BG
18	3	BG
19	6	BG
*20	8	2.6
*21	8	BG
#22	6	BG
#23	6	BG
#24	4	BG
#25	4	BG

NOTE:

For PID locations please refer to UST Removal Form (Appendix A)

* - Sample collected for laboratory analysis by EPA Methods 8021 + MTBE and TPH 8100

- Soil sample collected for side wall composite.

Appendix C

Photographs

PHOTOGRAPH SUMMARY

Photograph #1: The front of the former CFI facility.

Photograph #2: The excavation along the side of UST #001.

Photograph #3: The bottom/side of UST #001.

Photograph #4: The west end and bottom of UST #001.

Photograph #5: The bottom of UST #002.

Photograph #6: The west end and top of the UST #002.

Cumberland Farms, Inc.
UST Facility, ID# 978, Station # V0064
Fair Haven, Vermont



Photo #1

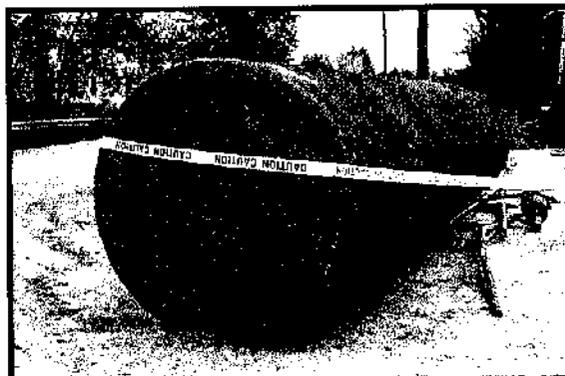


Photo #4

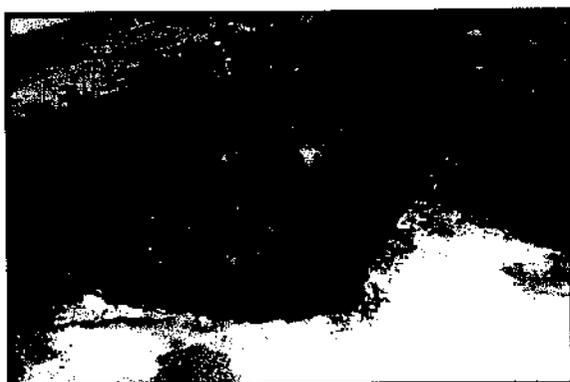


Photo #2

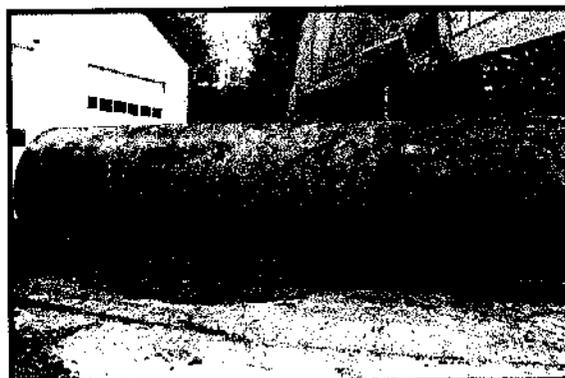


Photo #5



Photo #3



Photo #6

Photographs taken during UST removal on 9 October, 1998.
Lincoln Applied Geology, Inc. - 163 Revell Road, Lincoln, Vermont 05443

Appendix D

Off-site Soil Treatment Request Form

VT AGENCY OF NATURAL RESOURCES - DEPARTMENT OF ENVIRONMENTAL CONSERVATION
WASTE MANAGEMENT DIVISION

OFF-SITE SOIL TREATMENT REQUEST FORM

Off-Site Location

Generator/Owner of Soil

Soil Volume/Peak PID/Avg. PID: 40 lb²/32 ppm/3.86 ppm
Off-Site Street Address: MTS Co. Box 359
Epsom NH 03234
Name of Land Owner: MTS Co. Lisa Fawcett
Phone # of Land Owner: (603) 898-4559

Name: Sumner Land Farms Inc.
Facility ID#, Name, and Street Address: # V6064
C/E Fairbairn 58 Rosette Street Fairbairn VT
Contact: Paul Acord
Phone #: (802) 245-9702 ext. 3416

Off-Site Soil Treatment Siting Criteria Checklist

- There are no bedrock drinking water supplies within 300 feet of the treatment location.
- There are no shallow water supplies (e.g. dug wells, driven wells, etc.) within 300 feet of the treatment location. This limit may need to be extended if shallow water supplies are shown to be hydraulically downgradient.
- There are no sensitive environments (i.e., stream, river, lake, pond, wildlife refuge, wetland, floodplain, Public Water Source Protection Area, Class I or II groundwater zone, or similar areas), within 100 feet of the treatment location.
- There is adequate room to allow for treatment to occur over the necessary time frame.
- Public access to the treatment area has been restricted (e.g. fencing, posted).
- The treatment location is not in a residential area.
- Written approval from the landowner, if different from the soil generator, has been obtained before treatment begins. This must include written approval from the landowner granting Department of Environmental Conservation (DEC) investigators property access for the purpose of inspecting soil treatment at any reasonable time.
- The local municipality has been notified in writing of the off-site location prior to initiating any soil treatment. The soil generator has provided evidence to the Waste Management Division (WMD) that this notification has been made. If applicable, local permits should be obtained. NA - Permitted as part beach facility.
- An area map of the soil location has been submitted to the WMD.
- The WMD has given approval to move soils to the off-site location specified above, as indicated by the WMD representative's signature below.

As the party responsible for compliance with the "Agency Guidelines for Petroleum Contaminated Soil and Debris," subchapter 6 of the "Vermont Underground Storage Tank Regulations," and applicable statutes, I hereby certify that the representations made on this form are to the best of my knowledge true and correct.

Jason S. Barnard
Name of Owner/Operator Representative (printed)
Jason S. Barnard
Signature

Geologist
Company Title
10/12/98
Date

As land owner of the soil treatment location, I hereby give approval to the soil generator to treat the soil volume cited above at the above referenced location. In addition, I hereby grant property access to DEC investigators for the purpose of inspecting soil treatment at any reasonable time.

Signature of Land Owner
Paul Schae
Signature of WMD Representative

Date
10/13/98
Date of Approval