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Site Name BURLINGTON INDUSTRIES

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RptSegment 1

DocDate 4/27/1993

DocRcvd 2/20/2007

Box SF2232

AccessLevel PUBLIC

Division WASTE MANAGEMENT

Section SUPERFUND

Program IHS (IHS)

DocCat FACILITY



## Burlington Menswear

April 27, 1993

A division of Burlington Industries

RECEIVED  
APR 30 1993

Executives Offices  
P.O. Box 788  
Clarksville, Va. 23927  
(804) 374-8111

Mr. Jim Bales  
DEHNR  
Division of Environmental Mgm  
Ground Water Section  
Wachovia Building  
Suite 714  
Fayetteville, NC 28301-5043

ENV. MANAGEMENT  
FAYETTEVILLE REG. OFFICE

Reference: Corrective Action Plan  
Burlington Industries - BMD Plant (Raeford)  
Raeford, NC  
Incident No. 5531

Dear Mr. Bales:

Enclosed, please find a corrective action update for the former UST site located at Burlington's Raeford facility. Groundwater is currently being pumped and utilized as process water for the plant.

Burlington will proceed with the recommendations made by Aquaterra in the attached letter. Results will be sent to the DEHNR for review.

If you have any questions or comments, please call me at 804-374-3514.

Sincerely,

G. Mike Garlick  
Div. Environmental Engineer

cc: T. Fripp/File - BMEO  
B. Hennessey - BMEO  
T. LeJeune - 3330/Energy  
A. Allen - BMD  
F. Sessoms - BMD

Mr. S. A. Barnhardt  
NCDEHNR  
Groundwater Section  
Wachovia Building  
Fayetteville, NC 28301-5043

envir\air\ustact.bmd





# AQUATERRA

*Environmental Consultants*

March 10, 1993

Mr. Michael Garlick  
Burlington Industries, Inc.  
Division Engineering  
Post Office Box 788  
Clarksville, Virginia 23927

Reference: Corrective Action Update  
Burlington Industries, Inc.  
Raeford Facility  
Raeford, North Carolina  
Aquaterra Job No. 2146700

Dear Mr. Garlick:

Aquaterra, Inc. (Aquaterra) has written a corrective action update for the Burlington Industries, Inc. (Burlington) facility located in Raeford, North Carolina. The attached report summarizes recent field activities and laboratory analytical data, and presents our conclusions regarding the site. Burlington should send a copy of this report to the North Carolina Department of Environment, Health, and Natural Resources (NCDEHNR) at the address on the inside cover letter. Our recommendations for the site are included in this cover letter.

- During all subsequent sampling events, Burlington should measure the water levels in all monitoring wells and in extraction well RW-1 to verify that a cone of depression is being maintained.
- In order to increase the extraction rate of ground water, the extraction pump intake should be lowered in the extraction well. At this time, the pump intake is set at a depth of approximately 30 feet. Depth to the bottom of the well is approximately 36 feet.
- The shallow ground water contour map for February 1993 (see Figure 3) indicates a cone of depression in the area of extraction well RW-1. During subsequent sampling events, water level measurements and pumping rates should be evaluated again to determine if the cone of depression has increased in areal extent due to lowering of the pump.

Corporate Office

P. O. Box 50328  
Raleigh, NC 27650  
(919) 859-9987  
FAX (919) 859-9930

Charlotte Office

P. O. Box 668107  
Charlotte, NC 28266-8107  
(704) 525-8680  
FAX (704) 527-2792

Greensboro Office

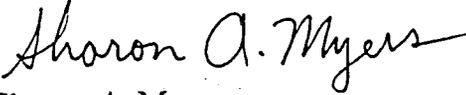
P. O. Box 16241  
Greensboro, NC 27416-0241  
(919) 273-5003  
FAX (919) 271-8138

- During the next sampling event, Burlington should collect samples from all monitoring wells at the site for laboratory analysis. The analytical data can then be used to construct a ground water plume map to determine the distribution of ground water contaminants at the site, which will assist in documenting the effectiveness of the corrective action.

If you have any questions or comments, please contact Ms. Sharon Myers at (919) 859-9987.

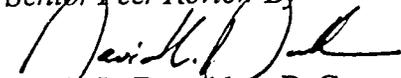
Sincerely,

AQUATERRA, INC.



Sharon A. Myers  
Project Manager

*Senior Peer Review By*



David L. Dunclee, P. G.  
Senior Project Manager

R1986-93  
SAM/DLD/pjc

State of North Carolina  
Department of Environment,  
Health and Natural Resources  
Fayetteville Regional Office



James B. Hunt, Jr., Governor  
Jonathan B. Howes, Secretary  
Andrew McCall, Regional Manager

DIVISION OF ENVIRONMENTAL MANAGEMENT

March 16, 1994

Mr. Mike Garlick  
Burlington Menswear  
Executives Offices  
P.O. Box 788  
Clarksville, VA 23927

SUBJECT: Groundwater Remediation  
Raeford Plant Site  
Raeford, Hoke County  
Incident No. 5531

Dear Mr. Garlick:

The Fayetteville Regional Office requests an update of the activities at the subject site. Your last report indicated that groundwater recovery was taking place at a rate of approximately 110 gallons per day. Please provide all information you have concerning groundwater recovery, analytical data of the area monitor wells and recovery well(s) and any other information collected that will aid in the evaluation of this project's status. We request submittal of this information on or before April 15, 1994.

If you have any questions you may contact me or Mr. Jim Bales, L.G., by telephone (910) 486-1541.

Sincerely,

A handwritten signature in black ink that reads "Stephen A. Barnhardt". The signature is written in a cursive style.

Stephen A. Barnhardt, L.G.  
Hydrogeologist II

SAB/zlt



State of North Carolina  
Department of Environment, Health, and Natural Resources  
Fayetteville Regional Office

James G. Martin, Governor

William W. Cobey, Jr., Secretary

DIVISION OF ENVIRONMENTAL MANAGEMENT

June 25, 1992

Mr. Mike Garlick  
Burlington Menswear  
Executive Offices  
P.O. Box 788  
Clarksville, VA 23927

SUBJECT: Well Construction Permit  
No. 46-0064-WR-0069  
Burlington Industries  
Raeford Plant, Hoke County

Dear Mr. Garlick:

In accordance with your application received June 24, 1992, we are forwarding herewith Well Construction Permit No. 46-0064-WR-0069 dated June 25, 1992, issued to Burlington Industries for the construction of a groundwater recovery system located at the Raeford plant site.

This Permit will be effective from the date of its issuance and shall be subject to the conditions and limitations as specified therein.

Issuance of this permit does not constitute approval of the subject wells for reimbursement from Trust Funds.

If any parts, requirements, or limitations contained in this Permit are unacceptable to you, you have the right to an adjudicatory hearing before a hearing officer upon written demand to the Director within 30 days following receipt of this Permit, identifying the specific issues to be contended. Unless such demand is made, this Permit shall be final and binding.

Sincerely,

*original signed by*  
  
J. J. Roland, P.E.  
Regional Supervisor

MJN/SAB/mla  
Enclosure  
cc: Mike Stewart

NORTH CAROLINA

ENVIRONMENTAL MANAGEMENT COMMISSION

RALEIGH, NORTH CAROLINA

PERMIT FOR THE CONSTRUCTION OF A WELL OR WELL SYSTEM

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In accordance with the provisions of Article 7, Chapter 87, North Carolina General Statutes, and other applicable Laws, Rules and Regulations.

PERMISSION IS HEREBY GRANTED TO

Burlington Industries

FOR THE CONSTRUCTION OF a groundwater recovery system and located at the Burlington Industries, Raeford plant site in Hoke County, in accordance with the application dated June 25, 1992 and in conformity with specifications and supporting data, all of which are filed with the Department of Environment, Health, and Natural Resources and are considered a part of this Permit.

This Permit is for well construction only and does not waive any provisions or requirements of the Water Use Act of 1967 or any other applicable laws or regulations.

Construction of a well under this Permit shall be in compliance with the North Carolina Well Construction Regulations and Standards and any other laws and regulations pertaining to well construction.

This Permit will be effective from the date of its issuance through the duration of this project or as this shall be amended, and shall be subject to other specified conditions, limitations, or exceptions as follows:

1. To receive approval for the construction of any additional monitor/recovery wells at the location described above contact:

Division of Environmental Management/Groundwater Section  
Suite 714, Wachovia Building  
Fayetteville, NC 28301-5043  
(919) 486-1541

Copies of construction diagrams for proposed wells and a site plan (map) showing the locations of all existing and proposed wells must be provided.

2. Furnish copies of all chemical analyses to the Division of Environmental Management at the above address.

Well Construction Permit  
Page 2

Permit issued this the 25th day of June, 1992.

FOR THE NORTH CAROLINA ENVIRONMENTAL MANAGEMENT COMMISSION

*original signed by*

---

M. J. Noland, Regional Supervisor  
DIVISION OF ENVIRONMENTAL MANAGEMENT

By Authority of the Environmental Management Commission

Permit No. 46-0064-WR-0069

NORTH CAROLINA  
ENVIRONMENTAL MANAGEMENT COMMISSION  
DEPARTMENT OF ENVIRONMENT, HEALTH, & NATURAL RESOURCES  
APPLICATION FOR PERMIT TO CONSTRUCT A ~~MONITORING~~ <sup>RECOVERY</sup> WELL SYSTEM

RECEIVED  
JUN 29 1992  
ENVIRONMENTAL MANAGEMENT  
FAYETTEVILLE REG. OFFICE

Date: June 23, 1992 County Hoke

In accordance with the provisions of Article 7, Chapter 87, General Statutes of North Carolina and regulations pursuant thereto, application is hereby made for a permit to monitoring wells.

- Name of Applicant: Burlington Industries, Inc. (Telephone: (804)374-8111)  
Applicant's Mailing Address: P.O. Box 788, Clarksville, Virginia 23927
- Name of Property Owner (if different from applicant) \_\_\_\_\_  
Owner's Mailing Address: \_\_\_\_\_
- Contact Person: Mr. Michael Garlick (Telephone: (804)374-8111)
- Location of Property: RaeFord Facility, RaeFord, NC
- Reason for ~~Monitoring~~ <sup>Recovery</sup> Well(s): Environmental Assessment  
(ex: nondischarge permit requirements, suspected contamination, environmental assessment, etc.)
- Type of facility or site for which the ~~monitoring~~ <sup>Recovery</sup> well(s) is needed: Underground storage tank  
(ex: nondischarge facility, waste disposal site, landfill, underground storage tank, etc.)
- Type of contamination being ~~monitored~~ <sup>Recovered</sup> (if applicable): Purgeable Halocarbons  
(ex: nutrients, organics, heavy metals, etc.)
- Are any existing recovery wells associated with the ~~monitoring~~ <sup>Recovery</sup> well(s)? NO If yes, how many? \_\_\_\_\_  
Recovery Well Construction Permit No. \_\_\_\_\_
- Distance to a known waste or pollution source: 100 feet
- Are any water supply wells located less than 500 feet from the proposed ~~monitoring~~ <sup>Recovery</sup> wells? NO  
If yes, give distance: \_\_\_\_\_ feet
- Well Driller: Groundwater Protection, Inc.
- Registration #: 1105
- Driller's Address: P.O. Box 7028  
Charlotte, N.C. 28241

PROPOSED MONITORING WELL CONSTRUCTION INFORMATION

- Total Number of Wells to be constructed: one ; (A) Number to be completed in bedrock? None  
(B) Number to be completed in unconsolidated material? one

- Estimated depth of well(s): 35 feet
- Gravel or sand pack interval (if appropriate)  
From 35 feet To 3 feet
- Type of casing used: PVC  
(ex: PVC, stainless steel, galvanized steel, etc.)
- Diameter of casing: 6 inches

FOR OFFICE USE ONLY	
<input type="checkbox"/>	PERMITTED ACTIVITY
<input type="checkbox"/>	U.S.T. LEAK DETECTION
<input type="checkbox"/>	GROUNDWATER QUALITY STANDARDS VIOLATIONS SUSPECTED FROM UNPERMITTED ACTIVITIES
<input type="checkbox"/>	NOTICE OF NON-COMPLIANCE AT UNPERMITTED FACILITIES
PERMIT NO. _____	ISSUED _____ 19 _____
INCIDENT # _____	

- 6. Thickness of casing: Sch 40 inches
- 7. How will the well(s) be secured? Locking Vault
- 8. Estimated beginning construction date: June 30, 1992
- 9. Estimated completion date: June 30, 1992

**ADDITIONAL INFORMATION**

- 1. ATTACH A SITE MAP SHOWING THE LOCATIONS OF THE FOLLOWING:
  - 1 - PROPOSED <sup>Recovery</sup> ~~MONITORING~~ WELL(S)
  - 2 - ALL EXISTING MONITORING AND RECOVERY WELLS OR TEST BORINGS WITH THE PROPERTY BOUNDARY
  - 3 - ALL WATER SUPPLY WELLS WITHIN 500 FEET OF THE WASTE SOURCES
  - 4 - AT LEAST TWO REFERENCE POINTS (NUMBERED ROADS, INTERSECTIONS, STREAMS, ETC.)
- 2. PROVIDE A WELL CONSTRUCTION DIAGRAM OF EACH WELL SHOWING DIAMETER, ESTIMATED DEPTH, SCREEN INTERVALS, SAND/GRAVEL PACKS, TYPE OF CASING MATERIAL, CASING WALL THICKNESS, WELL HEAD COMPLETION DETAILS, ETC.)

The Applicant hereby agrees the proposed well(s) will be constructed in accordance with approved specifications and conditions of the Well Construction Permit as regulated under the Well Construction Standards (Title 15A North Carolina Administrative Code, Subchapter 2C) and accepts full responsibility for compliance with these rules.

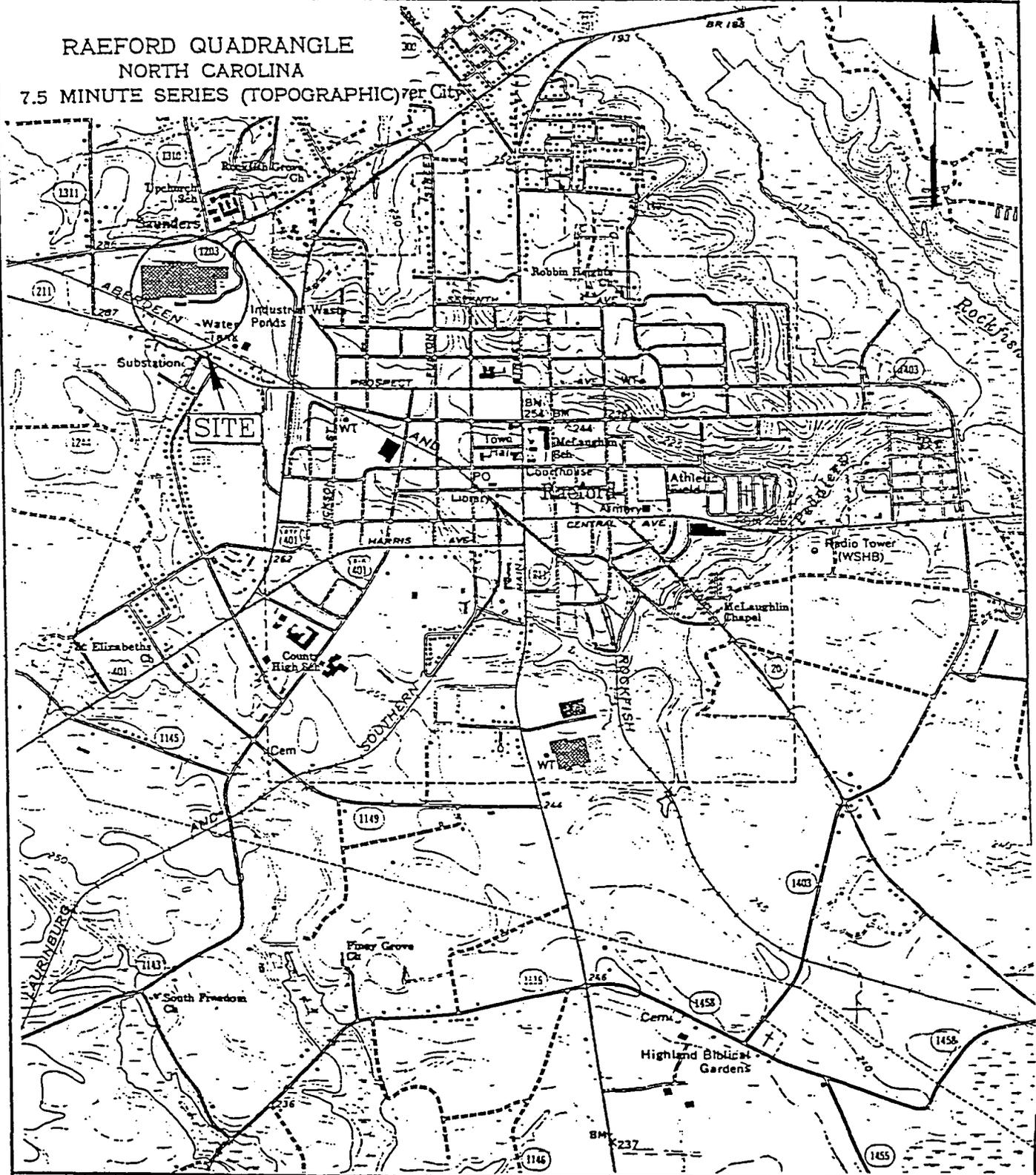
Michael K. Stewart  
 Signature of Applicant or Agent

Project Geologist  
 Title (if applicable)

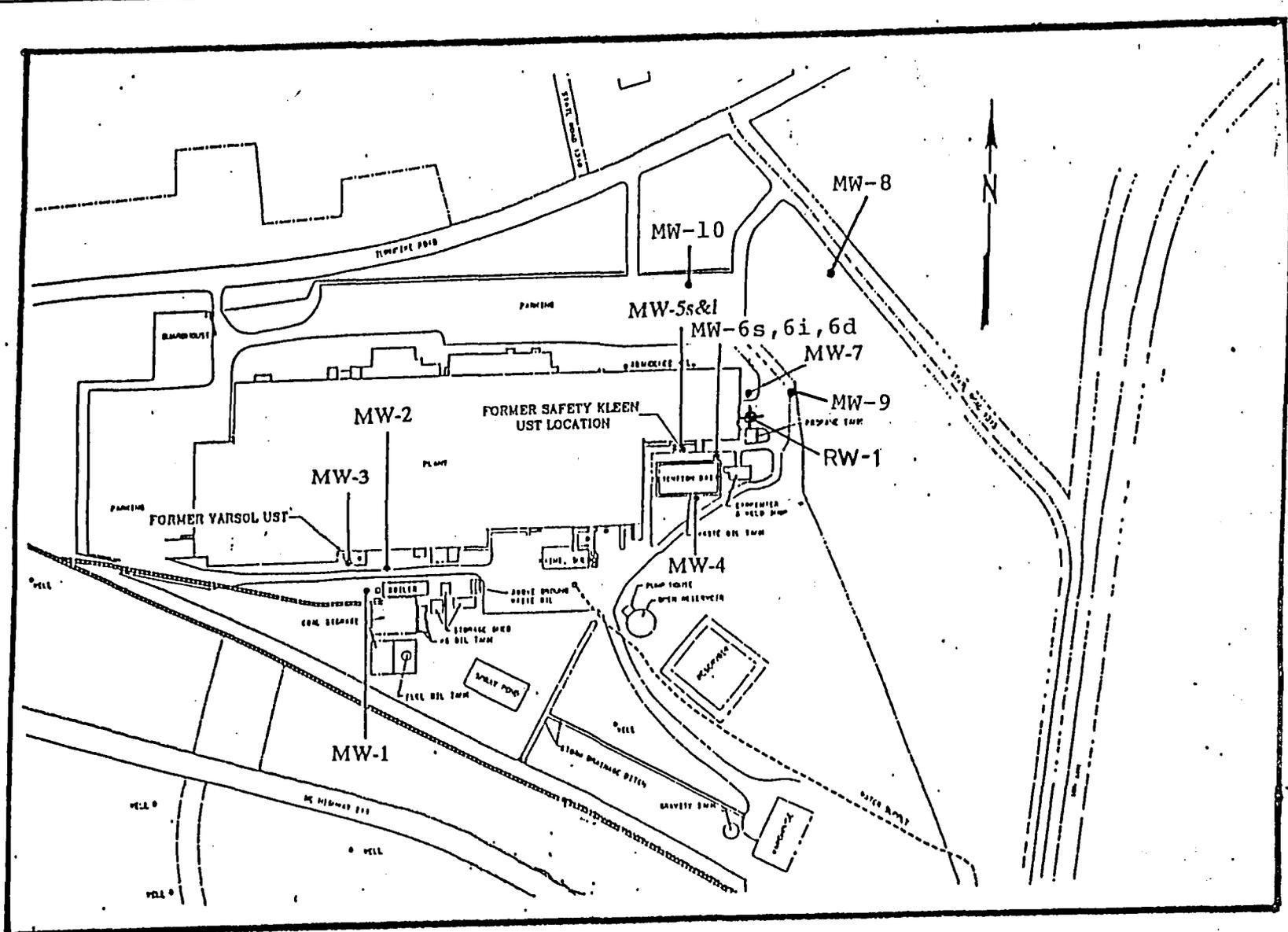
If the property is owned by someone other than the applicant, the property owner hereby consents to allow the applicant to construct monitoring wells as outlined in this application and that it shall be the responsibility of the applicant to ensure that these monitoring wells conform to the Well Construction Standards (Title 15A North Carolina Administrative Code, Subchapter 2C).

\_\_\_\_\_  
 Signature of Property Owner (if different from applicant)

RAEFORD QUADRANGLE  
 NORTH CAROLINA  
 7.5 MINUTE SERIES (TOPOGRAPHIC) per City



 <b>AQUATERRA, INC.</b> RALEIGH, GREENSBORO, CHARLOTTE NORTH CAROLINA	Author HMT	Drawing	Layers	Date	Title Site Location
	Job No. C-487	Revision	Figure 1	Scale 1"=2000'	Project Burlington Industries Raeford, North Carolina



PROJECT:  
 BURLINGTON INDUSTRIES  
 RAEFORD, NORTH CAROLINA

TITLE:  
 MONITOR WELL LOCATION MAP

JOB: 467C	DRAWING: ----	FIGURE: 2	SCALE: 1"=400'
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AQUATERRA, INC.  
 RALEIGH, GREENSBORO, CHARLOTT  
 NORTH CAROLINA

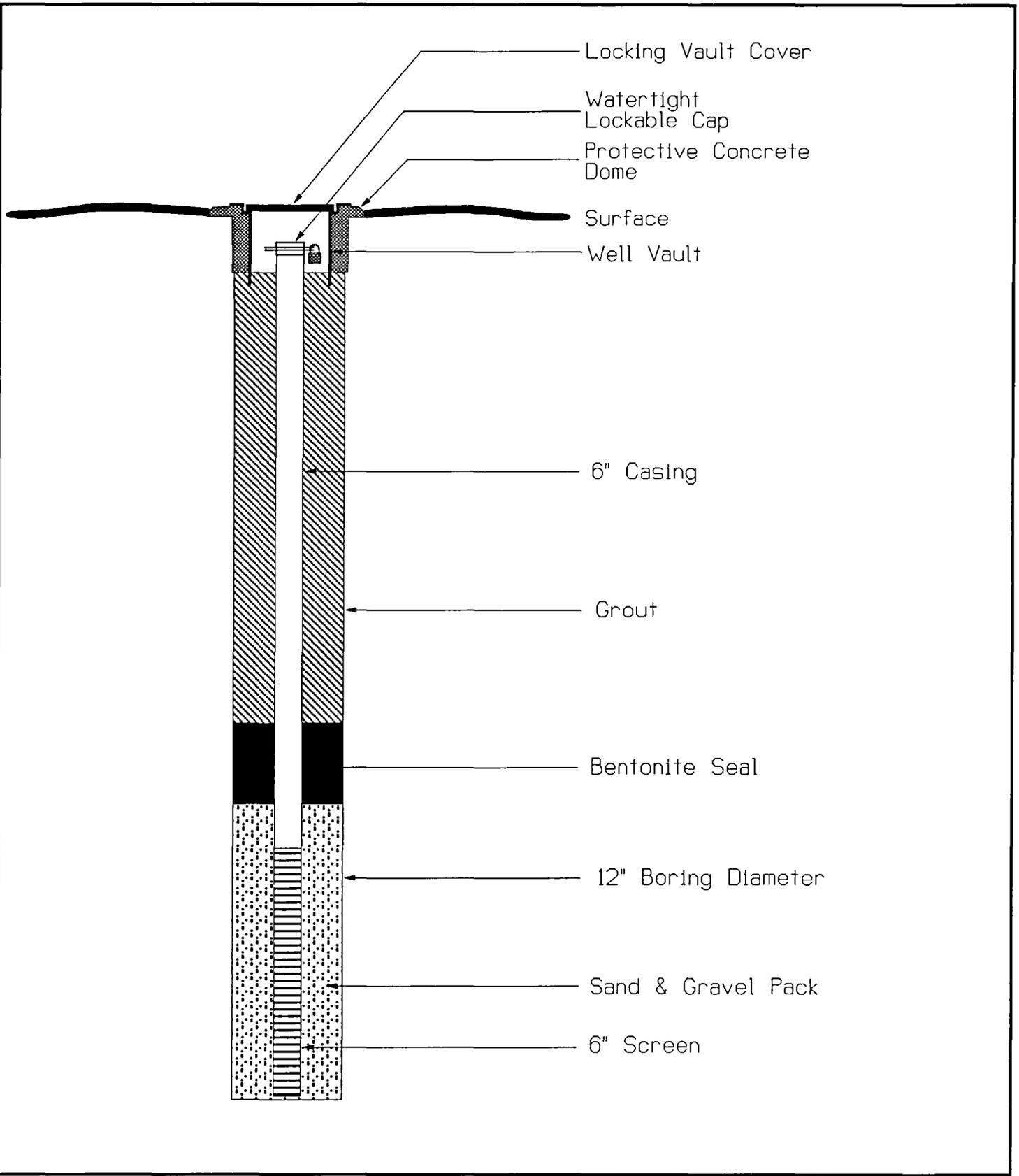


Figure 3 Standard Type II Belowgrade Recovery Well Construction Schematic



AQUATERRA, INC.  
 RALEIGH, GREENSBORO, CHARLOTTE  
 NORTH CAROLINA



State of North Carolina  
Department of Environment, Health, and Natural Resources  
Fayetteville Regional Office

James G. Martin, Governor

William W. Cobey, Jr., Secretary

DIVISION OF ENVIRONMENTAL MANAGEMENT

May 26, 1992

Mr. Mike Garlick  
Burlington Menswear  
Executive Offices  
P.O. Box 788  
Clarksville, VA 23927

SUBJECT: Certificate of Approval  
Land Application of Contaminated Soil  
Burlington Industries  
Raeford, Plant, Hoke County

Dear Mr. Garlick:

Enclosed is a copy of the Certification of Approval for disposal of soils containing petroleum products.

If you have any questions, please contact Mr. Stephen Barnhardt, L.G., or Mr. Jim Bales, L.G., at (919) 486-1541.

Sincerely,  
*original signed by*  
*M. J. Noland*  
M. J. Noland, P.E.  
Regional Supervisor

MJN/SAB/mla

Enclosure

CERTIFICATE # FAO-0024

North Carolina - Division of Environmental Management  
CERTIFICATE OF APPROVAL FOR  
DISPOSAL OF SOILS CONTAINING PETROLEUM PRODUCTS

- of 50 Cubic Yards or Less
- with Average Total Petroleum Hydrocarbon Concentration of 10 Parts Per Million or Less
- Other (explain below)

Approval Is Hereby Granted To:

Name: BURLINGTON INDUSTRIES, RAEFORD PLANT  
 Address: EXECUTIVES OFFICES, PO BOX 788  
CLARKSVILLE VA 23927

for the disposal of approximately 10 cubic yards of contaminated soil as specified below:

Type of Contaminants: SOIL CONTAMINATED W/ OIL AND GREASE

Location of Source of Contaminant(s) (include business/owner name): \_\_\_\_\_

Burlington Industries, Raeford Plant

Address of Source of Contaminants: RAEFORD PLANT

County: Hoke

Method of Disposal: LAND APPLICATION

Location(s) where contaminated soils will be disposed of (map must be provided):

ADJACENT TO THE NORTH CORNER OF SPRAY POND

This approval is based upon information provided to the Regional Supervisor, Mick Noland FAYETTEVILLE Regional Office, by the responsible party, who hereby agrees to conduct the approved soil disposal activities in accordance with applicable state, local or federal requirements and additionally agrees to abide by any special conditions or limitations specified below. (Note: Contaminated Soils shall not be disposed of, without written permission from the Division of Solid Waste Management, if the soil is Regulated under Subtitles C or D of RCRA)

Special Conditions, Limitations or Comments: MINIMUM RATE APPLICATION - NO  
ADDITIONAL SAMPLING OR CLOSURE FORMALITIES REQUIRED

Certificate of Approval issued this the 18<sup>th</sup> day of May, 1992.

[Signature]  
Signature of D.E.M. Representative

[Signature]  
Signature of Responsible Party

FAYETTEVILLE Regional Office

Date: 5/18/92



State of North Carolina  
Department of Environment, Health, and Natural Resources  
Fayetteville Regional Office

James G. Martin, Governor

William W. Cobey, Jr., Secretary

DIVISION OF ENVIRONMENTAL MANAGEMENT

April 10, 1992

Mr. G. Mike Garlick  
Burlington Menswear  
Executive Offices  
PO Box 788  
Clarksville, VA 23927

SUBJECT: Land Application of  
Contaminated Soil  
Burlington Industries  
Raeford Plant, Hoke County

Dear Mr. Garlick:

The Division has reviewed the subject report dated March 12, 1992, and received in the Fayetteville Regional Office on March 16, 1992. Burlington Industries is hereby granted permission to land apply the ten (10) cubic yards of contaminated soil at the site and under the conditions specified in your March 12, 1992, letter. Within twenty-four (24) hours of application, or the next regular working day, you are required to notify the Fayetteville Regional Office. An inspection, and issuance of a certificate of approval will follow.

For notification or questions, please contact Mr. Stephen Barnhardt, L.G., or any other member of the Groundwater Section at (919) 486-1541.

*original signed by*  
Sincerely,

*M. J. Noland*  
M. J. Noland, P.E.  
Regional Supervisor

MJN/SAB/rnj

DIVISION OF ENVIRONMENTAL MANAGEMENT

M E M O R A N D U M

TO: Mick Noland, Jim Bales

FROM: Art Barnhardt *AB*

SUBJECT: Burlington Industries, Raeford  
Plant Site GW Contamination  
Meeting 4/9/92 10:30 am

The representatives for BI would like to cover the remedial requirements for the GW contamination incident in Raeford. Mike Garlick has two ideas for dealing with this situation.

1. Would be to view the impacted area with a compliance boundary, similar to a non-discharge permit. Monitor the extent of the contamination with respect to a specified boundary. Implement GW recovery/treatment if contaminates approach boundary.
2. Install recovery system, use the contaminated GW in the process water. The daily need for water at the facility is substantial and would be able to create a sufficient cone of influence in the impacted area.

I feel option #2 is the most practical for resolving the problem the quickest. However BI would need to use the recovered GW in the process without increasing the exposure risk to the plant employees. Some of the compounds found in the GW have low Air Exposure Limits (5 ppm). It is doubtful that the concentrations in the GW will result in any significant increase in exposure.

Other options we should consider are separate recovery/treatment systems with discharge to the city system. This would be considerably more expensive for BI and not one of their favorite options.

Another topic of discussion we need to bring up is the fate of the aeration lagoon that is causing the problem. Should they upgrade, replace, or continue to monitor and recover any additional contamination originating from this area.

They will be here at approximately 10:30 am 4/9/92. If you need to review any of the data that has been generated to date, it's on my desk.

MJN/SAB



State of North Carolina  
Department of Environment, Health, and Natural Resources  
Fayetteville Regional Office

James G. Martin, Governor

William W. Cobey, Jr., Secretary

DIVISION OF ENVIRONMENTAL MANAGEMENT

February 7, 1992

Mr. Mike Garlick  
Burlington Industries, Inc.  
P.O. Box 788  
Clarksville, VA 23927

SUBJECT: Well Construction Permit (Amended)  
No. 46-0064-WM-0060  
For the Construction of at Least Four  
(4) Additional Monitor Wells Located  
on Highways 211 and 401 Bypass  
Raeford, Hoke County

Dear Mr. Garlick:

In accordance with your application for an amendment received January 9, 1992, we are forwarding herewith amended Well Construction Permit No. 46-0064-WM-0060, dated February 7, 1992, issued to Burlington Industries, Inc. for the construction of at least four (4) additional monitor wells located at the above mentioned location.

This Permit will be effective from the date of its issuance and shall be subject to the conditions and limitations as specified therein.

Issuance of this permit does not constitute approval of the subject wells for reimbursement from Trust Funds.

If any parts, requirements, or limitations contained in this amended Permit are unacceptable to you, you have the right to an adjudicatory hearing before a hearing officer upon written demand to the Director within 30 days following receipt of this amended Permit, identifying the specific issues to be contended. Unless such demand is made, this amended Permit shall be final and binding.

Sincerely,  
*original signed by*  
*[Signature]*  
M. J. Noland, P.E.  
Regional Supervisor

*cah*  
MJN/cah  
Enclosure

cc: Aquaterra, Inc.

NORTH CAROLINA

ENVIRONMENTAL MANAGEMENT COMMISSION

RALEIGH, NORTH CAROLINA

PERMIT FOR THE CONSTRUCTION OF A WELL OR WELL SYSTEM

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In accordance with the provisions of Article 7, Chapter 87, North Carolina General Statutes, and other applicable Laws, Rules and Regulations.

PERMISSION IS HEREBY GRANTED TO

Burlington Industries, Inc.

FOR THE CONSTRUCTION OF at least four (4) additional monitor wells in the surficial material, and located on Highways 211 and 401 Bypass in Raeford, Hoke County, in accordance with the amended application dated January 7, 1992, and in conformity with specifications and supporting data, all of which are filed with the Department of Environment, Health, and Natural Resources and are considered a part of this Permit.

This amended Permit is for well construction only and does not waive any provisions or requirements of the Water Use Act of 1967 or any other applicable laws or regulations.

Construction of a well under this amended Permit shall be in compliance with the North Carolina Well Construction Regulations and Standards and any other laws and regulations pertaining to well construction.

This amended Permit will be effective from the date of its issuance through the duration of this project or as this shall be amended, and shall be subject to other specified conditions, limitations, or exceptions as follows:

1. To receive approval for the construction of any additional monitor/recovery wells at the location described above contact:

Division of Environmental Management/Groundwater Section  
Suite 714, Wachovia Building  
Fayetteville, NC 28301-5043  
(919) 486-1541

Copies of construction diagrams for proposed wells and a site plan (map) showing the locations of proposed wells must be provided.

2. Furnish copies of all chemical analyses to the Division of Environmental Management at the above address.

Amended Well Construction Permit  
Page 2

Amended Permit issued this the 7th day of February, 1992.

FOR THE NORTH CAROLINA ENVIRONMENTAL MANAGEMENT COMMISSION

*original signed by*  
*M. J. Noland*

---

M. J. Noland, Regional Supervisor  
DIVISION OF ENVIRONMENTAL MANAGEMENT

By Authority of the Environmental Management Commission

Permit No. 46-0064-WM-0060

NORTH CAROLINA  
ENVIRONMENTAL MANAGEMENT COMMISSION  
DEPARTMENT OF ENVIRONMENT, HEALTH, & NATURAL RESOURCES

RECEIVED

---

**APPLICATION FOR PERMIT TO CONSTRUCT A MONITORING WELL SYSTEM** 1992

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Date: January 7, 19 92 County Hoke ENV. MANAGEMENT  
FAYETTEVILLE REG. OFFICE

In accordance with the provisions of Article 7, Chapter 87, General Statutes of North Carolina and regulations pursuant thereto, application is hereby made for a permit to monitoring wells.

1. Name of Applicant: Burlington Industries, Inc. c/o Mike Garlick (Telephone: 804-374-8111)  
Applicant's Mailing Address: Post Office Box 788, Clarksville, VA 23927
2. Name of Property Owner (if different from applicant) BI-Menswear Division  
Owner's Mailing Address: Raeford, NC
3. Contact Person: Steven Burrows, Aquaterra, Inc. (Telephone: 704-525-8680)
4. Location of Property: Hwys. 211 and 401 Bypass, Raeford, NC
5. Reason for Monitoring Well(s): Environmental Assessment  
(ex: nondischarge permit requirements, suspected contamination, environmental assessment, etc.)
6. Type of facility or site for which the monitoring well(s) is needed: dye pond  
(ex: nondischarge facility, waste disposal site, landfill, underground storage tank, etc.)
7. Type of contamination being monitored (if applicable): organic solvents  
(ex: nutrients, organics, heavy metals, etc.)
8. Are any existing recovery wells associated with the monitoring well(s)? NO If yes, how many? \_\_\_\_\_  
Recovery Well Construction Permit No. \_\_\_\_\_
9. Distance to a known waste or pollution source: 100 feet
10. Are any water supply wells located less than 500 feet from the proposed monitoring wells? NO  
If yes, give distance: \_\_\_\_\_ feet
11. Well Driller: Carolina Drillers
12. Registration #: 728
13. Driller's Address: Wilmington, NC 28404

**PROPOSED MONITORING WELL CONSTRUCTION INFORMATION**

1. Total Number of Wells to be constructed: 4 ; (A) Number to be completed in bedrock? 0  
(B) Number to be completed in unconsolidated material? 4
2. Estimated depth of well(s): 35' - 75' feet
3. Gravel or sand pack interval (if appropriate)  
From 23 feet To 35 feet  
68' ft. to 75'
4. Type of casing used: PVC  
(ex: PVC, stainless steel, galvanized steel, etc.)
5. Diameter of casing: 2 inches

FOR OFFICE USE ONLY	
<input type="checkbox"/> PERMITTED ACTIVITY	
<input type="checkbox"/> U.S.T. LEAK DETECTION	
<input type="checkbox"/> GROUNDWATER QUALITY STANDARDS VIOLATIONS SUSPECTED FROM UNPERMITTED ACTIVITIES	
<input type="checkbox"/> NOTICE OF NON-COMPLIANCE AT UNPERMITTED FACILITIES	
PERMIT NO. _____ ISSUED _____ 19 _____	
INCIDENT # _____	46-0064-WM-0060

6. Thickness of casing: 0.19" inches
7. How will the well(s) be secured? 4
8. Estimated beginning construction date: 1/16/92
9. Estimated completion date: 1/17/92

**ADDITIONAL INFORMATION**

1. ATTACH A SITE MAP SHOWING THE LOCATIONS OF THE FOLLOWING:
- 1 - PROPOSED MONITORING WELL(S)
  - 2 - ALL EXISTING MONITORING AND RECOVERY WELLS OR TEST BORINGS WITH THE PROPERTY BOUNDARY
  - 3 - ALL WATER SUPPLY WELLS WITHIN 500 FEET OF THE WASTE SOURCES
  - 4 - AT LEAST TWO REFERENCE POINTS (NUMBERED ROADS, INTERSECTIONS, STREAMS, ETC.)
2. PROVIDE A WELL CONSTRUCTION DIAGRAM OF EACH WELL SHOWING DIAMETER, ESTIMATED DEPTH, SCREEN INTERVALS, SAND/GRAVEL PACKS, TYPE OF CASING MATERIAL, CASING WALL THICKNESS, WELL HEAD COMPLETION DETAILS, ETC.)
- 
- 

The Applicant hereby agrees the proposed well(s) will be constructed in accordance with approved specifications and conditions of the Well Construction Permit as regulated under the Well Construction Standards (Title 15A North Carolina Administrative Code, Subchapter 2C) and accepts full responsibility for compliance with these rules.

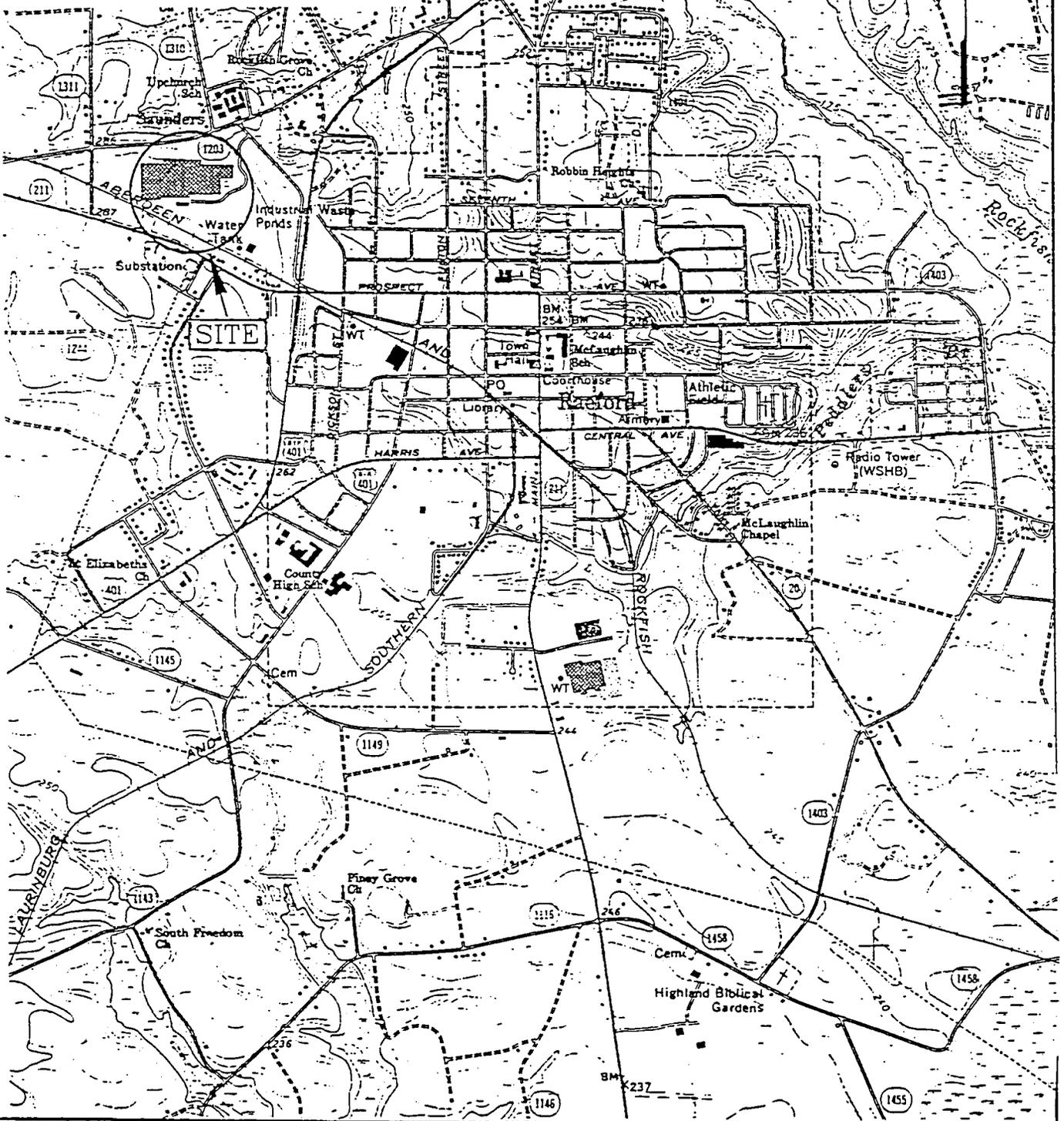
  
\_\_\_\_\_  
Signature of Applicant or Agent Steven M. Burrows

Project Geologist, Aquaterra, Inc., Charlotte, NC  
Title (if applicable)

If the property is owned by someone other than the applicant, the property owner hereby consents to allow the applicant to construct monitoring wells as outlined in this application and that it shall be the responsibility of the applicant to ensure that these monitoring wells conform to the Well Construction Standards (Title 15A North Carolina Administrative Code, Subchapter 2C).

N/A  
Signature of Property Owner (if different from applicant)

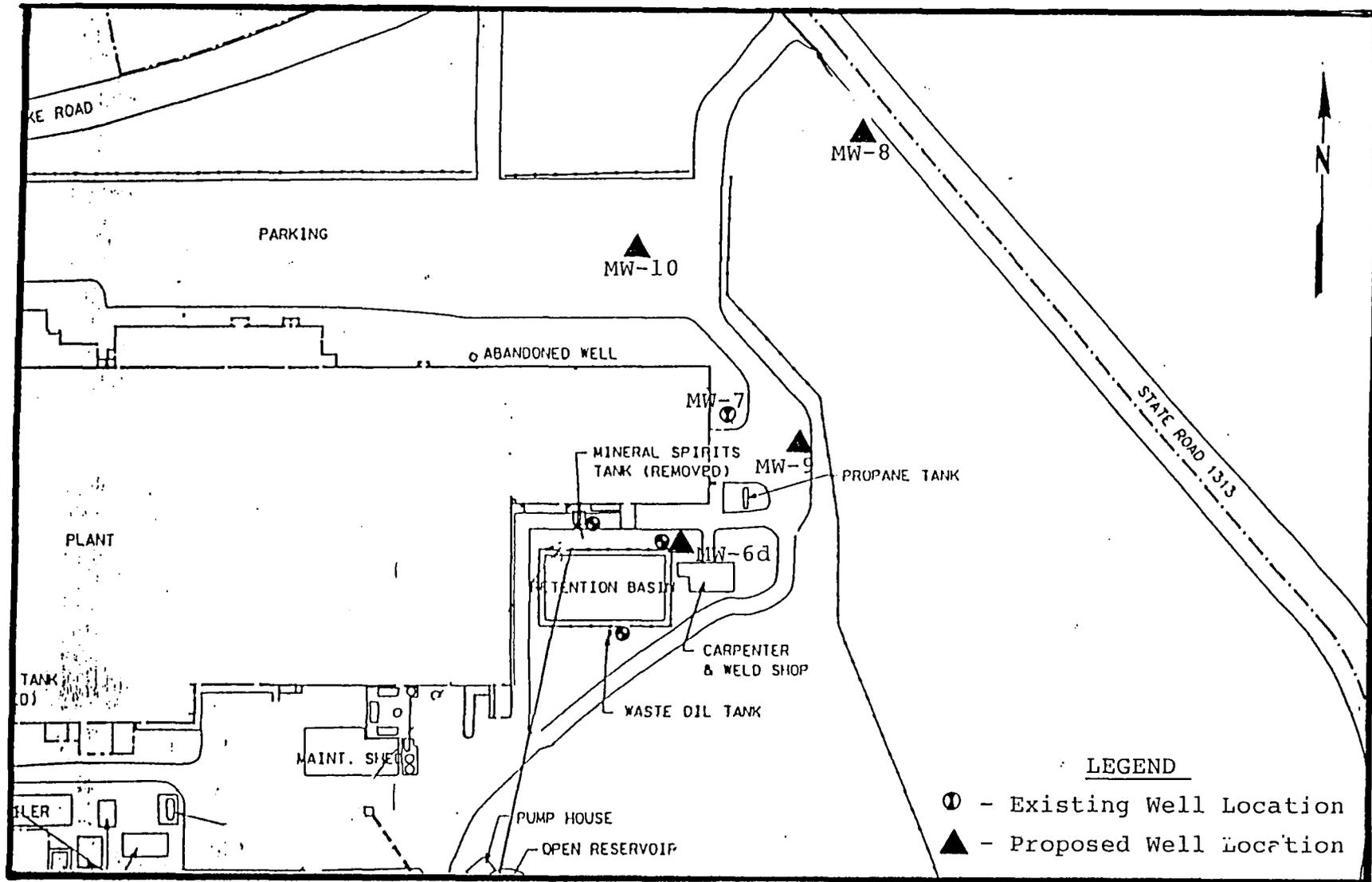
RAEFORD QUADRANGLE  
 NORTH CAROLINA  
 7.5 MINUTE SERIES (TOPOGRAPHIC) per City



**AQUATERRA, INC.**  
 RALEIGH, GREENSBORO, CHARLOTTE  
 NORTH CAROLINA

Author	Drawing	Layers	Date	Title
RMT				Site Location
Job No.	Revision	Figure	Scale	Project
C-467		1	1"=2000'	Burlington Industries Raeford, North Carolina





PROJECT:  
 Burlington Industries, Inc.  
 Raeford, North Carolina

TITLE:  
 Proposed Well Location Map

JOB: C467	DRAWING: ---	FIGURE: 1	SCALE: 1"=200'
--------------	-----------------	--------------	-------------------



**AQUATERRA, INC.**  
 RALEIGH, GREENSBORO, CHARLOTTE  
 NORTH CAROLINA



WELL NUMBER: MW-6d DRILLING METHOD: ASA  
 DATE STARTED: \_\_\_\_\_ DRILLING FLUIDS: \_\_\_\_\_  
 DATE FINISHED: \_\_\_\_\_ STATIC WATER LEVEL: \_\_\_\_\_ DATE: \_\_\_\_\_  
 GEOLOGIST/ENG: \_\_\_\_\_ OBSERVED BY: \_\_\_\_\_  
 REMARKS: \_\_\_\_\_

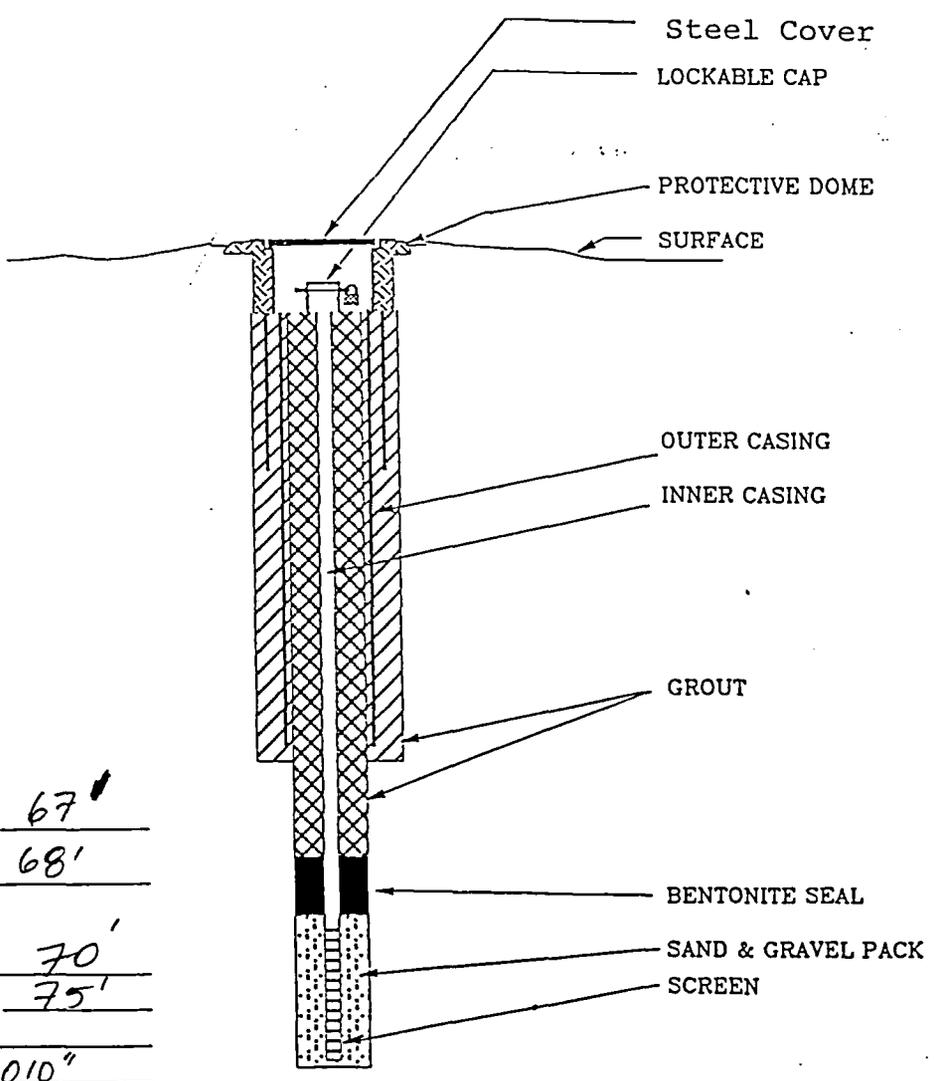
O.D. OF BOREHOLE: 10"  
 O.D. OF CASING: 2.375"  
 PIPE STICKUP: 0'  
 SURFACE ELEVATION: -  
 GROUT TYPE: Port. #1

\* (INNER)  
 CASING TYPE: PVC  
 CASING SIZE: 2"  
 BOREHOLE DIAMETER: \_\_\_\_\_  
 \* (OUTER)  
 CASING TYPE: PVC  
 CASING SIZE: 6"  
 BOREHOLE DIAMETER: 10"

DEPTH TO BOTTOM OF OUTER CASING 50'  
 DEPTH TO BOTTOM OF INNER CASING 70'

DEPTH TO TOP OF BENTONITE 67'  
 DEPTH TO TOP OF GRAVEL 68'

DEPTH TO TOP OF SCREEN 70'  
 DEPTH TO BOTTOM OF SCREEN 75'  
 LENGTH OF SCREEN: 5'  
 SCREEN OPENING SIZE: 0.010"  
 SCREEN TYPE: PVC  
 SCREEN SIZE: Sch. 40



PROJECT: <u>BI - Raeford, NC</u>		TITLE: <u>Monitoring Well Construction</u>			 <b>AQUATERRA, INC.</b> RALEIGH, GREENSBORO, CHARLOTTE NORTH CAROLINA
JOB: <u>C467</u>	DRAWING:	FIGURE:	SCALE:		



State of North Carolina  
Department of Environment, Health, and Natural Resources  
Fayetteville Regional Office

James G. Martin, Governor

William W. Cobey, Jr., Secretary

DIVISION OF ENVIRONMENTAL MANAGEMENT

January 6, 1992

Mr. Mike Garlick  
Burlington Industries  
Menswear Division  
P.O. Box 788  
Clarksville, VA 23927

SUBJECT: Groundwater Assessment  
Burlington Industries  
Raeford Plant Site  
Raeford, Hoke County  
Incident No. 5531

Dear Mr. Garlick:

The Fayetteville Regional Office has reviewed the plan of action for Phase II of the groundwater assessment outlined in your letter of December 16, 1991, and received in this office on December 23, 1991. The proposed actions planned for this assessment phase are adequate. The deadline for report submittal of this phase will be April 3, 1992.

Your monitor well permit (No. 46-0064-WM-0060) has been amended to include the additional wells to be installed during this next assessment phase.

A Certificate of Approval will be issued to Burlington Industries for the land application of the contaminated soil mentioned in the above referenced letter after the location and method of application has been reviewed and approved. This Certificate is issued after the soil has been land applied. Please provide the details of the land-application proposal as soon as possible.

Mr. Mike Garlick  
Page 2  
January 6, 1992

If you have any questions, please contact Mr. Stephen Barnhardt, L.G., or  
Mr. Jim Bales, L.G., at (919) 486-1541.

*Sincerely,*  
*M. J. Noland*

M. J. Noland, P.E.  
Regional Supervisor

<sup>SAB</sup>  
MJN/SAB/tf

## DIVISION OF ENVIRONMENTAL MANAGEMENT

January 6, 1992

Mr. Mike Garlick  
Burlington Industries  
Menswear Division  
P.O. Box 788  
Clarksville, VA 23927

SUBJECT: Groundwater Assessment  
Burlington Industries  
Raeford Plant Site  
Raeford, Hoke County  
Incident No. 5531

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Mr. Mike Garlick  
Page 2  
January 6, 1992

If you have any questions, please contact Mr. Stephen Barnhardt, L.G., or  
Mr. Jim Bales, L.G., at (919) 486-1541.

Sincerely,

M. J. Noland, P.E.  
Regional Supervisor

MJN/SAB/tf

OK TO PRINT

DIVISION OF ENVIRONMENTAL MANAGEMENT

October 25, 1991

Mr. Mike Garlick  
Burlington Menswear  
Executive Offices  
P.O. Box 788  
Clarksville, VA 23927

SUBJECT: Plan of Action  
Groundwater Assessment  
Burlington Industries  
Raeford, Hoke County  
Incident No. 5531

Dear Mr. Garlick:

The Fayetteville Regional Office has reviewed your letter of October 14, 1991, and finds your plan acceptable.

In reference to the former varsol tank and the closure activities, we evaluated the assessment report and no additional cleanup is required. Should additional information become available, we reserve the right to reverse this decision.

If you have any questions, please contact Mr. Stephen Barnhardt, L.G., or Mr. Jim Bales, L.G., at (919) 486-1541.

Sincerely,

*original signed by*  
*M. J. Noland*

M. J. Noland, P.E.  
Regional Supervisor

MJN/SAB/mla

## DIVISION OF ENVIRONMENTAL MANAGEMENT

September 27, 1991

Mr. Mike Garlick  
Burlington Menswear  
Executives Offices  
P.O. Box 788  
Clarksville, VA 23927

SUBJECT: Groundwater Assessment  
Burlington Industries  
Raeford, Hoke County  
Incident No. 5531

Dear Mr. Garlick:

The Fayetteville Regional Office has reviewed the assessment report by Aquaterra, Inc. at the Burlington Industries Raeford facility. Your consultant has not determined the vertical and horizontal extent of groundwater contamination nor the aquifer characteristics at the site.

The Division requests a plan of action and proposed time schedule be submitted no later than 15 days of the receipt of this letter. The Division requires that a completed comprehensive site assessment be submitted no later than forty-five (45) days after the receipt of this letter unless another deadline is approved by the Fayetteville Regional Office.

Under the authority of G.S. 143-215.6A, failure to comply with this deadline could result in an enforcement action, with civil penalties not to exceed \$10,000 per day for each day of continued noncompliance.

Mr. Mike Garlick  
Page 2  
September 27, 1991

If you have any questions, please contact Mr. Stephen Barnhardt, L.G., or Mr. Jim Bales, L.G., at (919) 486-1541.

*original signed by*  
*M. J. Noland*  
M. J. Noland, P.E.  
Regional Supervisor

MJN/SAB/rhg

cc: Aquaterra, Inc.

OK: Print  
FAD copy

DIVISION OF ENVIRONMENTAL MANAGEMENT

June 11, 1991

Mr. Mike Garlick  
Burlington Menswear  
Executives Offices  
PO Box 788  
Clarksville, VA 23927

SUBJECT: Groundwater Assessment  
Burlington Industries  
Raeford Facility  
Raeford, Hoke County  
Incident No. 5531

Dear Mr. Garlick:

The Fayetteville Regional Office has reviewed the May 23, 1991 letter regarding the additional site assessment requirements and proposed time schedule, and finds it acceptable. Please submit the assessment report by the date indicated.

If you have any questions, please contact Mr. Stephen Barnhardt, L.G., or Mr. Jim Bales, L.G., of this office at (919) 486-1541.

Sincerely,

*original signed by*  
  
M. J. Noland, P.E.  
Regional Supervisor

MJN/SAB/mla



State of North Carolina  
Department of Environment, Health, and Natural Resources  
Fayetteville Regional Office

James G. Martin, Governor

William W. Cobey, Jr., Secretary

DIVISION OF ENVIRONMENTAL MANAGEMENT

April 23, 1991

Mr. G. Mike Garlick  
Executives Offices  
P.O. Box 788  
Clarksville, VA 23927

SUBJECT: Additional Groundwater Assessment  
Requirements  
Burlington Industries  
Raeford Plant Site, Hoke County  
Incident No. 5531

Dear Mr. Garlick:

The Fayetteville Regional Office has reviewed the groundwater assessment report compiled by Aquatera for Burlington Industries and has determined additional hydrologic and analytical information is needed. Please provide the additional information listed below:

1. Determine the depth to, and give the permeability and thickness of the upper confining layer. Lithological test borings, if any are constructed, should be located outside the areas of potential groundwater contamination.
2. Resample MW3 and MW5, and use EPA Method 602 for the analyses.
3. Install an additional monitor well hydrologically downgradient of the former Safety Kleen UST location. It must be capable of sampling the groundwater at the lower boundary of the surficial aquifer. This sample should be analyzed using EPA Method 601.
4. Determine the source and extent of the groundwater contamination in the area of MW6.

Mr. G. Mike Garlick  
Page 2  
April 23, 1991

Please respond within 30 days of receipt of this letter with a proposed time schedule for completion of this site work. If you have any questions, please contact Mr. Stephen Barnhardt, L.G., or Mr. Jim Bales, L.G., at (919) 486-1541.

Sincerely,

*original signed by*  
M. J. Noland, P.E.  
Regional Supervisor

MJN/SAB/tf *SAB*

OK TO PRINT

## DIVISION OF ENVIRONMENTAL MANAGEMENT

February 18, 1991

Mr. G. Mike Garlick  
Burlington Menswear  
Executive Offices  
PO Box 788  
Clarksville, VA 23927

SUBJECT: Groundwater Assessment (Phase 1)  
Burlington Industries  
Raeford Plant  
Raeford, Hoke County  
Incident No. 5531

Dear Mr. Garlick:

The Division has reviewed the Groundwater Assessment Report conducted at the above referenced site and determined that additional information is needed. The location of the monitor wells shown on the maps provided with the Assessment Report are hydrologically upgradient from the former underground storage tank locations. Groundwater potentially impacted by a release from the underground storage tanks would not be detected by the monitor wells currently installed.

Please provide the Division with your proposal for installing one additional well adjacent to and hydrologically down gradient from each former tank location. We are aware that the distance from these sites to the foundation of the building structure is minimal. If locating an additional well at each location is not possible, another approach for assessing the groundwater quality must be proposed.

Mr. Mike Garlick  
Page 2  
February 18, 1991

Please respond within 30 days of receipt of this letter. If you have any questions, please contact Stephen Barnhardt, L.G. or Jim Bales, L.G. of this office at (919) 486-1541.

Sincerely,

*original signed by*

*[Handwritten Signature]*  
M. J. Noland, P.E.  
Regional Supervisor

*SAB*  
MJN/SAB/mla

## DIVISION OF ENVIRONMENTAL MANAGEMENT

December 27, 1990

Mr. Mike Garlick  
Burlington Menswear  
Executive Offices  
PO Box 788  
Clarksville, VA 23927

SUBJECT: Disposal of Contaminated Soil  
Burlington Industries  
Raeford Plant, Hoke County  
Incident # 5531

Dear Mr. Garlick:

This letter is in reference to your November 5, 1990 letter requesting Division approval to spread the contaminated soil excavated during underground storage tank removals at the Raeford, North Carolina plant site.

Be advised that our records indicate that the material contained in the afore mentioned underground storage tanks (Safety Kleen # 105) is considered to be a hazardous material. Treatment and disposal of this class waste is regulated by North Carolina Solid and Hazardous Waste Management Division. The contact person for this region is Flint Worrell, and he can be reached at (919) 486-1191.

If you have any questions, please contact Mr. Stephen Barnhardt, P.G. at (919) 486-1541.

Sincerely,

*original signed by*  
*[Signature]*  
W. J. [Signature] P.E.  
Regional Supervisor

MJN/SAB/mla

File



State of North Carolina  
Department of Environment, Health, and Natural Resources  
Fayetteville Regional Office

James G. Martin, Governor

William W. Cobey, Jr., Secretary

DIVISION OF ENVIRONMENTAL MANAGEMENT

October 16, 1990

Mr. Mike Garlick  
Burlington Menswear  
Executives Office  
P.O. Box 788  
Clarksville, VA 23927

SUBJECT: Proposed Plan of Action  
UST Release Assessment Proposal  
Brulington Industries Facility  
Raeford, Hoke County

Dear Mr. Garlick:

This is to acknowledge receipt of the above mentioned assessment proposal dated August 2, 1990, prepared by Aquaterra, Inc. and received by the Fayetteville Regional Office on August 3, 1990.

The technical aspect of the assessment proposal has been evaluated and determined to be adequate.

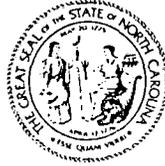
In order for the Fayetteville Regional Office to properly monitor the progress of remediation at leaking underground storage sites, it is requested that monthly progress reports be submitted until actual cleanup has begun.

Should you have any questions or need clarification, please contact Stephen A. Barnhardt of this office at (919) 486-1541.

Sincerely,  
*original signed by*  
*M. J. Noland*  
M. J. Noland, P.E.  
Regional Supervisor

MJN/SAB/rhg

cc: Mr. Thomas A. Proctor



State of North Carolina  
Department of Environment, Health, and Natural Resources  
Fayetteville Regional Office

James G. Martin, Governor

William W. Cobey, Jr., Secretary

DIVISION OF ENVIRONMENTAL MANAGEMENT

August 15, 1990

Mike Garlick  
Burlington Ind., Menswear Division  
P.O. Box 788  
Clarksville, VA 23927

SUBJECT: Well Construction Permit  
No. 46-0064-WM-0060  
For the Construction of Six (6)  
Monitor Wells Located at the  
Burlington Industries Facility  
Raeford, Hoke County

Dear Mr. Garlick:

In accordance with your application received August 3, 1990, we are forwarding herewith Well Construction Permit No. 46-0064-WM-0060 dated August 15, 1990 issued to Burlington Ind., Inc., as owner, for the construction of six (6) monitor wells at the subject location.

This Permit will be effective from the date of its issuance and shall be subject to the conditions and limitations as specified therein.

If any parts, requirements, or limitations contained in this Permit are unacceptable to you, you have the right to an adjudicatory hearing before a hearing officer upon written demand to the Director within 30 days following receipt of this Permit, identifying the specific issues to be contended. Unless such demand is made, this Permit shall be final and binding.

*original signed by*  
Sincerely,  
*[Signature]*  
M. J. Noland, P.E.  
Regional Supervisor

MJN/SAB/rhg

Enclosure

cc: Thomas Proctor

NORTH CAROLINA

ENVIRONMENTAL MANAGEMENT COMMISSION

RALEIGH, NORTH CAROLINA

PERMIT FOR THE CONSTRUCTION OF A WELL OR WELL SYSTEM

---

In accordance with the provisions of Article 7, Chapter 87, North Carolina General Statutes, and other applicable Laws, Rules and Regulations.

PERMISSION IS HEREBY GRANTED TO

Burlington Industries, Inc.

FOR THE CONSTRUCTION OF six (6) monitor wells to be completed in the surficial aquifer and located at the Burlington Industries, Inc. facility in Raeford, Hoke County; in accordance with the application dated July 31, 1990 and in conformity with specifications and supporting data, all of which are filed with the Department of Environment, Health and Natural Resources and are considered a part of this Permit.

This Permit is for well construction only, and does not waive any provisions or requirements of the Water Use Act of 1967 or any other applicable laws or regulations.

Construction of a well under this Permit shall be in compliance with the North Carolina Well Construction Regulations and Standards and any other laws and regulations pertaining to well construction.

This Permit will be effective from the date of its issuance through the duration of this project or as this shall be amended, and shall be subject to other specified conditions, limitations, or exceptions as follows:

1. To receive approval for the construction of any additional monitor/recovery wells at the location described above contact:

Division of Environmental management/Groundwater Section  
Suite 714, Wachovia Bldg.  
Fayetteville, NC  
(919) 486-1541

Copies of construction diagrams for proposed wells and a site plan (map) showing the locations of proposed wells must be provided.

2. Furnish copies of all chemical analyses to the Division of Environmental Management at the above address.

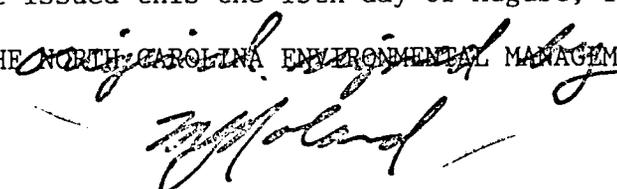
1/3/92 4 WELLS TO BE ADDED *AB*

Well Construction Permit No. 46-0064-WM-0060

Page 2

Permit issued this the 15th day of August, 1990

FOR THE NORTH CAROLINA ENVIRONMENTAL MANAGEMENT COMMISSION

---

M.J. Nöland, Regional Supervisor  
Division of Environmental Management

By Authority of the Environmental Management Commission

Permit No. 46-0064-WM-0060

DIVISION OF ENVIRONMENTAL MANAGEMENT

July 6, 1990

Mr. G. Mike Garlick  
Burlington Menswear  
Executives Offices  
P.O. Box 788  
Clarksville, VA 23927

SUBJECT: Evaluation of Proposed Timetable for  
Groundwater Investigation Assessment  
Burlington Industries Plant Site  
Raeford, Hoke County  
Incident No. 5531

Dear Mr. Garlick:

This is to acknowledge receipt of the above mentioned timetable dated June 29, 1990, and received in the Fayetteville Regional Office on July 2, 1990.

This timetable has been evaluated and determined adequate.

Please insure that your monthly progress reports are submitted to the Fayetteville Regional Office on or before the 6th of each month.

Should you have any questions or need clarification, please contact Mr. Stephen Barnhardt of this office at (919) 486-1541.

Sincerely,

*Original signed by*  
  
P. M. J. Noland, P.E.  
Regional Supervisor

MJN/SAB/tf



State of North Carolina  
Department of Environment, Health, and Natural Resources  
Fayetteville Regional Office

James G. Martin, Governor

William W. Cobey, Jr., Secretary

DIVISION OF ENVIRONMENTAL MANAGEMENT

June 6, 1990  
**RECEIVED**  
JUN 07 1990

**RECEIVED**  
JUN 7 1990

Mr. Mike Garlick  
Burlington Menswear  
Executive Offices  
P.O. Box 788  
Clarksville, Virginia 23927

POLLUTION CONTROL BRANCH

GROUNDWATER SECTION  
RALEIGH, NC

SUBJECT: Underground Storage Tank Release  
Assessment  
Burlington Industries  
Raeford, Hoke County  
Incident # 5531

Dear Mr. Garlick:

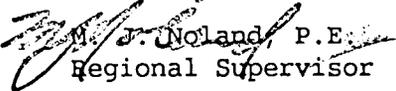
This letter is in response to the Underground Storage Tank removal assessment performed by Aquaterra at Burlington's Raeford and BMD plants located in Raeford, Hoke County. Because of a release of regulated substances into the subsurface environment, the Division requests Burlington Industries to perform an assessment of the potential impact to the groundwater beneath the former UST sites. Please include in the initial phase of this project all appropriate requirements shown in the attached Minimum Information Requirements:

In reference to part five (5) of the above mentioned attachment, the Division requires you submit an application to construct monitor wells, and that monitor well locations and test methods be reviewed and approved by Division personnel prior to the implementation of any site work. Please provide the Division with a plant site map (to scale) showing the location of each former UST site. This or an additional map shall also include all public, industrial, private, domestic and irrigation wells, surface water or other environmentally sensitive features within 1,500' of the former UST sites. The location of proposed monitor wells may be included on this initial base work map. The Division utilizes this information to evaluate your proposed site assessment strategy and will advise you if we feel any proposed actions are inadequate.

Mr. Mike Garlick  
Page 2  
June 6, 1990

Response is requested by July 5, 1990. Please provide an outline of your plan of action with estimated completion dates and the above referenced base map information. If you have any questions, please contact Stephen Barnhardt at (919) 486-1541.

Sincerely,

*original signed by*  
  
M. J. Noland, P.E.  
Regional Supervisor

<sup>219</sup>  
MJN/SAB/mla



State of North Carolina  
Department of Environment, Health, and Natural Resources  
Fayetteville Regional Office

James G. Martin, Governor

William W. Cobey, Jr., Secretary

DIVISION OF ENVIRONMENTAL MANAGEMENT

April 26, 1990

Mr. Mike Garlick  
Burlington Men's Wear  
P. O. Box 788  
Clarksville, VA 23927

SUBJECT: The Rights and Obligations of the Owner/Operator of a Commercial  
Leaking Petroleum Underground Storage Tank

Dear Mr. Garlick:

A leak from a petroleum underground storage tank puts the owner/operator under an obligation to clean up the contaminated soil and groundwater. North Carolina legislators decided to assist you to do that with a law which was passed in 1988 (N.C. G.S. 143-215.94). Assistance is available to owners/operators of leaking underground storage tanks through the State Trust Fund. It is funded by annual tank fees that all owners/operators of commercial underground storage tanks must pay.

If you are an owner/operator of such a leaking tank, this fund can help you to pay for cleaning up the contamination. To qualify, you must meet the following criteria and requirements:

1. Pay your annual underground storage tank fees.
2. Report a release/discharge to the appropriate Department of Environment, Health and Natural Resources Regional Office within 24 hours.
3. Obtain pre-approval from the Fayetteville Regional Office of your comprehensive site assessment and corrective action plan, including the cost estimates to perform these actions.

Mr. Mike Garlick

Page 2

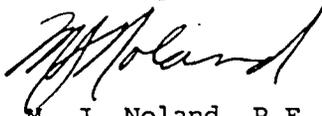
4. Upon approval, you may proceed with the site assessment and corrective action plans.
5. Request for reimbursement must be submitted to the Fayetteville Regional Office. You must submit invoices, with costs listed, to indicate that each step of the plan was executed. Costs must be itemized; for example, the rates/hour, rates/foot, rates/ton and how many hours were spent on each step of the plan.
6. Any deviation from the pre-approved plans and cost estimates must be presented to the Regional Office and approved before proceeding with such action.
7. There is a \$50,000 deductible for comprehensive site assessment and corrective action which you have to pay before the State Commercial Fund will pay.
8. There is a \$100,000 deductible for third-party liability which you have to pay if third parties are involved; for example, if you are sued because your neighbor's groundwater became contaminated with petroleum from your site.
9. The Commercial Fund may reimburse you up to a total of \$1 million per occurrence.
10. Because you have performed certain investigative and clean-up actions at this site prior to receipt of this letter, you must submit copies of all cost-related activities for which you have paid. Costs must be itemized; for example, the rate/hour, rates/foot, rates/ton and how many hours were spent on each step of the work.

We have enclosed the Procedural Checklist and Technical Guidelines for UST Site Assessment and Corrective Actions and associated forms. These guidelines should be used to direct any field investigations (assessments) and cleanup activities at your site. Please follow these instructions for the balance of the investigation and clean-up at your facility. You may desire to use the services of a qualified professional and/or consulting firm to perform these tasks.

Mr. Mike Garlick  
Page 3

Should you have any questions or need clarification, please contact  
Stephen A. Barnhardt at (919) 486-1541.

Sincerely,

A handwritten signature in black ink, appearing to read "M. J. Noland". The signature is fluid and cursive, with the first letters of the first and last names being capitalized and prominent.

M. J. Noland, P.E.  
Regional Supervisor

MJN/SAB/gcc

3 Attachments: Procedural Checklist & Technical Guidelines  
Owner(s)/Operator(s) Statement "A"  
Cost Proposal for LUST Cleanup Fund



State of North Carolina  
Department of Environment, Health, and Natural Resources  
Fayetteville Regional Office

James G. Martin, Governor

William W. Cobey, Jr., Secretary

DIVISION OF ENVIRONMENTAL MANAGEMENT

October 26, 1989

Mr. Larry Nowell  
Burlington Industries - Raeford Plant  
Aberdeen Road  
Raeford, NC 28376

SUBJECT: Notification of UST Abandonment  
Burlington Industries  
Aberdeen Road  
Raeford, Hoke County

Dear Mr. Nowell:

The Fayetteville Regional Office of the Division of Environmental Management has received your notification for the abandonment of underground storage tanks located at the subject site.

In response to the large number of questions which have arisen concerning the proper abandonment of underground storage tanks, we have attached for your information additional guidance for the proper procedures to follow when abandoning underground storage tanks.

Should you have any questions or need additional information, please contact Gene Jackson of this office at (919) 486-1541.

*original signed by*  
Sincerely,  
*M.J. Noland*  
M.J. Noland, P.E.  
Regional Supervisor

*MJN*  
MJN/GJ/rhg

Enclosure: Requirements for Tank Closure

# Notification for Underground Storage Tanks

FORM APPROVED  
OMB NO. 2050-0049  
APPROVAL EXPIRES 6-30-88

**FOR  
TANKS  
IN  
NC**

**RETURN  
COMPLETED  
FORM  
TO**

Div. of Environmental Mgmt./GW Section  
Dept. of Natural Resources & Comm. Development  
P.O. Box 27687  
Raleigh, NC 27611 (919) 733-5083

I.D. Number **STATE USE ONLY**  
Date Received

## GENERAL INFORMATION

Notification is required by Federal law for all underground tanks that have been used to store regulated substances since January 1, 1974, that are in the ground as of May 8, 1986, or that are brought into use after May 8, 1986. The information requested is required by Section 9002 of the Resource Conservation and Recovery Act, (RCRA), as amended.

The primary purpose of this notification program is to locate and evaluate underground tanks that store or have stored petroleum or hazardous substances. It is expected that the information you provide will be based on reasonably available records, or, in the absence of such records, your knowledge, belief, or recollection.

**Who Must Notify?** Section 9002 of RCRA, as amended, requires that, unless exempted, owners of underground tanks that store regulated substances must notify designated State or local agencies of the existence of their tanks. Owner means—

(a) in the case of an underground storage tank in use on November 8, 1984, or brought into use after that date, any person who owns an underground storage tank used for the storage, use, or dispensing of regulated substances, and

(b) in the case of any underground storage tank in use before November 8, 1984, but no longer in use on that date, any person who owned such tank immediately before the discontinuation of its use.

**What Tanks Are Included?** Underground storage tank is defined as any one or combination of tanks that (1) is used to contain an accumulation of "regulated substances," and (2) whose volume (including connected underground piping) is 10% or more beneath the ground. Some examples are underground tanks storing: 1. gasoline, used oil, or diesel fuel, and 2. industrial solvents, pesticides, herbicides or fumigants.

**What Tanks Are Excluded?** Tanks removed from the ground are not subject to notification. Other tanks excluded from notification are:

1. farm or residential tanks of 1,100 gallons or less capacity used for storing motor fuel for noncommercial purposes;
2. tanks used for storing heating oil for consumptive use on the premises where stored;
3. septic tanks;

4. pipeline facilities (including gathering lines) regulated under the Natural Gas Pipeline Safety Act of 1968, or the Hazardous Liquid Pipeline Safety Act of 1979, or which is an intrastate pipeline facility regulated under State laws;

5. surface impoundments, pits, ponds, or lagoons;

6. storm water or waste water collection systems;

7. flow-through process tanks;

8. liquid traps or associated gathering lines directly related to oil or gas production and gathering operations;

9. storage tanks situated in an underground area (such as a basement, cellar, mineworking, drift, shaft, or tunnel) if the storage tank is situated upon or above the surface of the floor.

**What Substances Are Covered?** The notification requirements apply to underground storage tanks that contain regulated substances. This includes any substance defined as hazardous in section 101 (14) of the Comprehensive Environmental Response, Compensation and Liability Act of 1980 (CERCLA), with the exception of those substances regulated as hazardous waste under Subtitle C of RCRA. It also includes petroleum, e.g., crude oil or any fraction thereof which is liquid at standard conditions of temperature and pressure (60 degrees Fahrenheit and 14.7 pounds per square inch absolute).

**Where To Notify?** Completed notification forms should be sent to the address given at the top of this page.

**When To Notify?** 1. Owners of underground storage tanks in use or that have been taken out of operation after January 1, 1974, but still in the ground, must notify by May 8, 1986. 2. Owners who bring underground storage tanks into use after May 8, 1986, must notify within 30 days of bringing the tanks into use.

**Penalties:** Any owner who knowingly fails to notify or submits false information shall be subject to a civil penalty not to exceed \$10,000 for each tank for which notification is not given or for which false information is submitted.

## INSTRUCTIONS

Please type or print in ink all items except "signature" in Section V. This form must be completed for each location containing underground storage tanks. If more than 5 tanks are owned at this location, photocopy the reverse side, and staple continuation sheets to this form.

Indicate number of continuation sheets attached

### I. OWNERSHIP OF TANK(S)

Owner Name (Corporation, Individual, Public Agency or Other Entity)  
BURLINGTON INDUSTRIES, INC.

Street Address  
3330 W. FRIENDLY AVE.

County  
GUILFORD

City State ZIP Code  
GREENSBORO NC 27420

Area Code Phone Number  
919 379-2000

Type of Owner (Mark all that apply )

Current  State or Local Gov't  
 Former  Federal Gov't (GSA facility I.D. no. \_\_\_\_\_)

Private or Corporate  Ownership uncertain

RECEIVED  
OCT 21 1989  
ENV. MGMT. DIV.  
FAVETTEVILLE REG. OFFICE

### II. LOCATION OF TANK(S)

(If same as Section I, mark box here )

Facility Name or Company Site Identifier, as applicable  
BURLINGTON INDUSTRIES - RAEFORD PLANT

Street Address or State Road, as applicable  
ABERDEEN RD.

County  
HOKE

City (nearest) State ZIP Code  
RAEFORD NC 28376

Indicate number of tanks at this location

Mark box here if tank(s) are located on land within an Indian reservation or on other Indian trust lands

### III. CONTACT PERSON AT TANK LOCATION

Name (If same as Section I, mark box here ) Job Title Area Code Phone Number  
LARRY NOWELL PLANT ENGINEER 919 875-3731

### IV. TYPE OF NOTIFICATION

Mark box here only if this is an amended or subsequent notification for this location.

### V. CERTIFICATION (Read and sign after completing Section VI.)

I certify under penalty of law that I have personally examined and am familiar with the information submitted in this and all attached documents, and that based on my inquiry of those individuals immediately responsible for obtaining the information, I believe that the submitted information is true, accurate, and complete.

Name and official title of owner or owner's authorized representative Signature Date Signed  
JEFF KNIGHT - FSIS - UST PROGRAM MGR [Signature] 10-24-89

CONTINUE ON REVERSE SIDE

VI. DESCRIPTION OF UNDERGROUND STORAGE TANKS (Complete for each tank at this location.)					
Tank Identification No. (e.g., ABC-123), or Arbitrarily Assigned Sequential Number (e.g., 1,2,3...)	Tank No. 1	Tank No. 2	Tank No. 3	Tank No. 4	Tank No.
<b>1. Status of Tank</b> (Mark all that apply <input checked="" type="checkbox"/> )					
Currently in Use	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Temporarily Out of Use	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Permanently Out of Use	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Brought into Use after 5/8/86	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<b>2. Estimated Age (Years)</b>	7	36	7	10	
<b>3. Estimated Total Capacity (Gallons)</b>	2,000	1,000	1,052	550	
<b>4. Material of Construction</b> (Mark one <input checked="" type="checkbox"/> )					
Steel	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Concrete	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Fiberglass Reinforced Plastic	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Unknown	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Other, Please Specify					
<b>5. Internal Protection</b> (Mark all that apply <input checked="" type="checkbox"/> )					
Cathodic Protection	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Interior Lining (e.g., epoxy resins)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
None	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Unknown	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Other, Please Specify					
<b>6. External Protection</b> (Mark all that apply <input checked="" type="checkbox"/> )					
Cathodic Protection	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Painted (e.g., asphaltic)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Fiberglass Reinforced Plastic Coated	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
None	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Unknown	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Other, Please Specify					
<b>7. Piping</b> (Mark all that apply <input checked="" type="checkbox"/> )					
Bare Steel	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Galvanized Steel	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Fiberglass Reinforced Plastic	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Cathodically Protected	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Unknown	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Other, Please Specify					
<b>8. Substance Currently or Last Stored in Greatest Quantity by Volume</b> (Mark all that apply <input checked="" type="checkbox"/> )					
<b>a. Empty</b>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<b>b. Petroleum</b>					
Diesel	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Kerosene	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Gasoline (including alcohol blends)	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Used Oil	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Other, Please Specify					
<b>c. Hazardous Substance</b>					
Please Indicate Name of Principal CERCLA Substance		STODDARD SOLVENT			
OR					
Chemical Abstract Service (CAS) No.		8052-41-3			
Mark box <input checked="" type="checkbox"/> if tank stores a mixture of substances	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<b>d. Unknown</b>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<b>9. Additional Information (for tanks permanently taken out of service)</b>	TANKS TO BE REMOVED BY FOUR SEASONS INDUSTRIAL SERVICES, INC. AFTER 11/24/89.				
a. Estimated date last used (mo/yr)	/	/	/	/	/
b. Estimated quantity of substance remaining (gal.)					
c. Mark box <input checked="" type="checkbox"/> if tank was filled with inert material (e.g., sand, concrete)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

# Notification for Underground Storage Tanks

FORM APPROVED  
OMB NO. 2050-0049  
APPROVAL EXPIRES 6-30-88

**FOR  
TANKS  
IN  
NC**

**RETURN  
COMPLETED  
FORM  
TO**

Div. of Environmental Mgmt./GW Section  
Dept. of Natural Resources & Comm. Development  
P.O. Box 27687  
Raleigh, NC 27611 (919) 733-5083

I.D. Number **STATE USE ONLY**  
Date Received

## GENERAL INFORMATION

Notification is required by Federal law for all underground tanks that have been used to store regulated substances since January 1, 1974, that are in the ground as of May 8, 1986, or that are brought into use after May 8, 1986. The information requested is required by Section 9002 of the Resource Conservation and Recovery Act, (RCRA), as amended.

The primary purpose of this notification program is to locate and evaluate underground tanks that store or have stored petroleum or hazardous substances. It is expected that the information you provide will be based on reasonably available records, or, in the absence of such records, your knowledge, belief, or recollection.

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(u) in the case of any underground storage tank in use before November 8, 1984, but no longer in use on that date, any person who owned such tank immediately before the discontinuation of its use.

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3. septic tanks;

4. pipeline facilities (including gathering lines) regulated under the Natural Gas Pipeline Safety Act of 1968, or the Hazardous Liquid Pipeline Safety Act of 1979, or which is an intrastate pipeline facility regulated under State laws;
5. surface impoundments, pits, ponds, or lagoons;
6. storm water or waste water collection systems;
7. flow-through process tanks;
8. liquid traps or associated gathering lines directly related to oil or gas production and gathering operations;
9. storage tanks situated in an underground area (such as a basement, cellar, mineworking, drift, shaft, or tunnel) if the storage tank is situated upon or above the surface of the floor.

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**Penalties:** Any owner who knowingly fails to notify or submits false information shall be subject to a civil penalty not to exceed \$10,000 for each tank for which notification is not given or for which false information is submitted.

## INSTRUCTIONS

Please type or print in ink all items except "signature" in Section V. This form must be completed for each location containing underground storage tanks. If more than 5 tanks are owned at this location, photocopy the reverse side, and staple continuation sheets to this form.

Indicate number of continuation sheets attached

### I. OWNERSHIP OF TANK(S)

Owner Name (Corporation, Individual, Public Agency, or Other Entity)

BURLINGTON INDUSTRIES, INC.

Street Address

3330 W. FRIENDLY AVE.

County

GUILFORD

City State ZIP Code

GREENSBORO NC 27420

Area Code Phone Number

919 379-2000

Type of Owner (Mark all that apply )

- Current  State or Local Gov't  Private or Corporate  
 Former  Federal Gov't (GSA facility I.D. no. \_\_\_\_\_)  Ownership uncertain

### II. LOCATION OF TANK(S)

(If same as Section 1, mark box here )

Facility Name or Company Site Identifier, as applicable

BI - BM DYEING PLANT

Street Address or State Road, as applicable

ABERDEEN RD.

County

Hoke

City (nearest) State ZIP Code

RAEFORD NC 28376

Indicate number of tanks at this location

Mark box here if tank(s) are located on land within an Indian reservation or on other Indian trust lands

### III. CONTACT PERSON AT TANK LOCATION

Name (If same as Section I, mark box here )

ROBERT FARIOLE

Job Title

PLT ENG.

Area Code

919

Phone Number

875-3731

### IV. TYPE OF NOTIFICATION

Mark box here only if this is an amended or subsequent notification for this location.

### V. CERTIFICATION (Read and sign after completing Section VI.)

I certify under penalty of law that I have personally examined and am familiar with the information submitted in this and all attached documents, and that based on my inquiry of those individuals immediately responsible for obtaining the information, I believe that the submitted information is true, accurate, and complete.

Name and official title of owner or owner's authorized representative

JEFF KNIGHT - FSIS - UST PROGRAM MGR

Signature

Jeff Knight

Date Signed

10-24-89

CONTINUE ON REVERSE SIDE

VI. DESCRIPTION OF UNDERGROUND STORAGE TANKS (Complete for each tank at this location.)					
Tank Identification No. (e.g., ABC-123), or Arbitrarily Assigned Sequential Number (e.g., 1,2,3...)	Tank No.	Tank No.	Tank No.	Tank No.	Tank No.
<b>1. Status of Tank</b> (Mark all that apply <input checked="" type="checkbox"/> ) Currently in Use <input checked="" type="checkbox"/> Temporarily Out of Use <input type="checkbox"/> Permanently Out of Use <input type="checkbox"/> Brought into Use after 5/8/86 <input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<b>2. Estimated Age (Years)</b>	18				
<b>3. Estimated Total Capacity (Gallons)</b>	500				
<b>4. Material of Construction</b> (Mark one <input checked="" type="checkbox"/> ) Steel <input checked="" type="checkbox"/> Concrete <input type="checkbox"/> Fiberglass Reinforced Plastic <input type="checkbox"/> Unknown <input type="checkbox"/> Other, Please Specify _____	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<b>5. Internal Protection</b> (Mark all that apply <input checked="" type="checkbox"/> ) Cathodic Protection <input type="checkbox"/> Interior Lining (e.g., epoxy resins) <input type="checkbox"/> None <input checked="" type="checkbox"/> Unknown <input type="checkbox"/> Other, Please Specify _____	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<b>6. External Protection</b> (Mark all that apply <input checked="" type="checkbox"/> ) Cathodic Protection <input type="checkbox"/> Painted (e.g., asphaltic) <input type="checkbox"/> Fiberglass Reinforced Plastic Coated <input type="checkbox"/> None <input checked="" type="checkbox"/> Unknown <input type="checkbox"/> Other, Please Specify _____	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<b>7. Piping</b> (Mark all that apply <input checked="" type="checkbox"/> ) Bare Steel <input checked="" type="checkbox"/> Galvanized Steel <input type="checkbox"/> Fiberglass Reinforced Plastic <input type="checkbox"/> Cathodically Protected <input type="checkbox"/> Unknown <input type="checkbox"/> Other, Please Specify _____	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<b>8. Substance Currently or Last Stored in Greatest Quantity by Volume</b> (Mark all that apply <input checked="" type="checkbox"/> ) a. Empty <input type="checkbox"/> b. Petroleum <input type="checkbox"/> Diesel <input type="checkbox"/> Kerosene <input type="checkbox"/> Gasoline (including alcohol blends) <input type="checkbox"/> Used Oil <input type="checkbox"/> Other, Please Specify _____ c. Hazardous Substance <input checked="" type="checkbox"/> Please Indicate Name of Principal CERCLA Substance OR Chemical Abstract Service (CAS) No. Mark box <input checked="" type="checkbox"/> if tank stores a mixture of substances d. Unknown <input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	SAFETY-KLEEN SOLVENT				
<b>9. Additional Information (for tanks permanently taken out of service)</b> a. Estimated date last used (mo/yr) b. Estimated quantity of substance remaining (gal.) c. Mark box <input checked="" type="checkbox"/> if tank was filled with inert material (e.g., sand, concrete)	TANK TO BE REMOVED BY FOUR SEASONS INDUSTRIAL SERVICES, INC. AFTER 11/24/89.				
	/	/	/	/	/
	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

**MATERIAL SAFETY DATA SHEET**

EXXON COMPANY, U.S.A. P.O. BOX 2180 HOUSTON, TX 77252-2180

**A. IDENTIFICATION AND EMERGENCY INFORMATION**

<b>PRODUCT NAME</b> VAR SOL 18	<b>PRODUCT CODE</b> 131624 - 00624
<b>CHEMICAL NAME</b> Petroleum Solvent	<b>CAS NUMBER</b> 8052-41-3
<b>PRODUCT APPEARANCE AND ODOR</b> Clear water-white liquid Mild mineral spirits odor	
<b>MEDICAL EMERGENCY TELEPHONE NUMBER</b> (713) 656-3424	

**B. COMPONENTS AND HAZARD INFORMATION**

COMPONENTS	CAS NO. OF COMPONENTS	APPROXIMATE CONCENTRATION
This product can be defined as: Low Aromatic Stoddard Solvent		
	8052-41-3	100%
It consists predominantly of C7-C10 hydrocarbons.		
This product contains:		
C7-C10 saturated hydrocarbons	Mixture	Approximately 92+
Toluene	108-88-3	Approximately 0.4%
Xylene	1330-20-7	Approximately 0.5%
Ethylbenzene	100-41-4	Approximately 0.2%
C8+ Aromatics	Mixture	Approximately 6%
This product and all components are listed on the U.S. TSCA inventory.		
See Section E for Health and Hazard Information.		
See Section H for additional Environmental Information.		
<b>HAZARDOUS MATERIALS IDENTIFICATION SYSTEM (HMIS)</b>		
Health	Flammability	Reactivity
1	2	0
<b>BASIS</b> Recommended by Exxon		
<b>EXPOSURE LIMIT FOR TOTAL PRODUCT</b>		
100 ppm (525 mg/m3) for an 8-hour workday		<b>BASIS</b> Recommended by the American Conference of Governmental Industrial Hygienists (ACGIH) for Stoddard Solvent
100 ppm 8-hour TWA		OSHA Regulation 29 CFR 1910.1000

**C. PRIMARY ROUTES OF ENTRY AND EMERGENCY AND FIRST AID PROCEDURES**

**EYE CONTACT**  
If splashed into the eyes, flush with clear water for 15 minutes or until irritation subsides. If irritation persists, call a physician.

**SKIN**  
In case of skin contact, remove any contaminated clothing and wash skin thoroughly with soap and water.

**INHALATION**

If overcome by vapor, remove from exposure and call a physician immediately. If breathing is irregular or has stopped, start resuscitation, administer oxygen, if available.

**INGESTION**

If ingested, DO NOT induce vomiting; call a physician immediately.

**D. FIRE AND EXPLOSION HAZARD INFORMATION**

**FLASH POINT (MINIMUM)**

COMBUSTIBLE - Per DOT 49 CFR 173.115  
38°C (100°F)  
ASTM D 56, Tag Closed Cup

**AUTOIGNITION TEMPERATURE**

Approximately 255°C (490°F)  
ASTM D 2155

**NATIONAL FIRE PROTECTION ASSOCIATION (NFPA) - HAZARD IDENTIFICATION**

Health Flammability Reactivity  
0 2 0

**BASIS**

Recommended by the National Fire Protection Association

**HANDLING PRECAUTIONS**

This liquid is volatile and gives off invisible vapors. Either the liquid or vapor may settle in low areas or travel some distance along the ground or surface to ignition sources where they may ignite or explode.

Keep product away from ignition sources, such as heat, sparks, pilot lights, static electricity, and open flames.

**FLAMMABLE OR EXPLOSIVE LIMITS (APPROXIMATE PERCENT BY VOLUME IN AIR)**

Estimated values: Lower Flammable Limit 0.9% Upper Flammable Limit 7%

**EXTINGUISHING MEDIA AND FIRE FIGHTING PROCEDURES**

Foam, water spray (fog), dry chemical, carbon dioxide and vaporizing liquid type extinguishing agents may all be suitable for extinguishing fires involving this type of product, depending on size or potential size of fire and circumstances related to the situation. Plan fire protection and response strategy through consultation with local fire protection authorities or appropriate specialists.

The following procedures for this type of product are based on the recommendations in the National Fire Protection Association's "Fire Protection Guide on Hazardous Materials", Eighth Edition (1984):

Use dry chemical, foam or carbon dioxide to extinguish the fire. Water may be ineffective, but water should be used to keep fire-exposed containers cool. If a leak or spill has ignited, use water spray to disperse the vapors and to protect men attempting to stop a leak. Water spray may be used to flush spills away from exposures. Minimize breathing of gases, vapor, fumes or decomposition products. Use supplied-air breathing equipment for enclosed or confined spaces or as otherwise needed.

NOTE: The inclusion of the phrase "water may be ineffective" is to indicate that although water can be used to cool and protect exposed material, water may not extinguish the fire unless used under favorable conditions by experienced fire fighters trained in fighting all types of flammable liquid fires.

**DECOMPOSITION PRODUCTS UNDER FIRE CONDITIONS**

Fumes, smoke, carbon monoxide, aldehydes and other decomposition products, in the case of incomplete combustion.

**"EMPTY" CONTAINER WARNING**

"Empty" containers retain residue (liquid and/or vapor) and can be dangerous. DO NOT PRESSURIZE, CUT, WELD, BRAZE, SOLDER, DRILL, GRIND OR EXPOSE SUCH CONTAINERS TO HEAT, FLAME, SPARKS, STATIC ELECTRICITY, OR OTHER SOURCES OF IGNITION; THEY MAY EXPLODE AND CAUSE INJURY OR DEATH. Do not attempt to clean since residue is difficult to remove. "Empty" drums should be completely drained, properly bunged and promptly returned to a drum reconditioner. All other containers should be disposed of in an environmentally safe manner and in accordance with governmental regulations. For work on tanks refer to Occupational Safety and Health Administration regulations, ANSI Z49.1, and other governmental and industrial references pertaining to cleaning, repairing, welding, or other contemplated operations.

## E. HEALTH AND HAZARD INFORMATION

### VARIABILITY AMONG INDIVIDUALS

Health studies have shown that many petroleum hydrocarbons and synthetic lubricants pose potential human health risks which may vary from person to person. As a precaution, exposure to liquids, vapors, mists or fumes should be minimized.

### EFFECTS OF OVEREXPOSURE (Signs and symptoms of exposure)

High vapor concentrations (greater than approximately 1000 ppm) are irritating to the eyes and the respiratory tract, and may cause headaches, dizziness, anesthesia, drowsiness, unconsciousness, and other central nervous system effects, including death.

### NATURE OF HAZARD AND TOXICITY INFORMATION

Prolonged or repeated skin contact with this product tends to remove skin oils, possibly leading to irritation and dermatitis; however, based on human experience and available toxicological data, this product is judged to be neither a "corrosive" nor an "irritant" by OSHA criteria.

Product contacting the eyes may cause eye irritation.

Laboratory animal studies have shown that prolonged and repeated inhalation exposure to light hydrocarbon vapors in the same naphtha boiling range as this product can produce adverse kidney effects in male rats. However, these effects were not observed in similar studies with female rats and male and female mice and in limited studies with other animal species. Additionally, in a number of human studies, there was no clinical evidence of such effects at normal occupational levels. It is therefore highly unlikely that the kidney effects observed in male rats have significant implications for humans exposed at or below the recommended vapor limits in the workplace.

Product has a low order of acute oral and dermal toxicity, but minute amounts aspirated into the lungs during ingestion or vomiting may cause mild to severe pulmonary injury and possibly death.

This product is judged to have an acute oral LD50 (rat) greater than 5 g/kg of body weight, and an acute dermal LD50 (rabbit) greater than 3.16 g/kg of body weight.

### PRE-EXISTING MEDICAL CONDITIONS WHICH MAY BE AGGRAVATED BY EXPOSURE

Petroleum Solvents/Petroleum Hydrocarbons - Skin contact may aggravate an existing dermatitis.

## F. PHYSICAL DATA

The following data are approximate or typical values and should not be used for precise design purposes.

### BOILING RANGE

Approximately 153-202°C (308-396°F)

### VAPOR PRESSURE

Less than 10 mm Hg @ 25°C  
ASTM D 2879

### SPECIFIC GRAVITY (15.6 C/15.6 C)

0.78

### VAPOR DENSITY (AIR = 1)

Approximately 5.0

### MOLECULAR WEIGHT

145

### PERCENT VOLATILE BY VOLUME

100 @ 1 atm. and 25°C (77°F)

### pH

Essentially neutral

### EVAPORATION RATE @ 1 ATM. AND 25 C (77 F)

(n-BUTYL ACETATE = 1)  
0.1

### POUR, CONGEALING OR MELTING POINT

Less than -18°C (0°F)  
Pour Point by ASTM D 97

### SOLUBILITY IN WATER @ 1 ATM. AND 25 C (77 F)

Negligible; less than 0.1%

### VISCOSITY

0.90 cP @ 25°C ASTM D 445

## G. REACTIVITY

This product is stable and will not react violently with water. Hazardous polymerization will not occur. Avoid contact with strong oxidants such as liquid chlorine, concentrated oxygen, sodium hypochlorite or calcium hypochlorite.

## H. ENVIRONMENTAL INFORMATION

### STEPS TO BE TAKEN IN CASE MATERIAL IS RELEASED OR SPILLED

Shut off and eliminate all ignition sources. Keep people away. Recover free product. Add sand, earth or other suitable absorbent to spill area. Minimize breathing vapors. Minimize skin contact. Ventilate confined spaces. Open all windows and doors. Keep product out of sewers and watercourses by diking or impounding. Advise authorities if product has entered or may enter sewers, watercourses, or extensive land areas. Assure conformity with applicable governmental regulations. Continue to observe precautions for volatile, combustible vapors from absorbed material.

THE FOLLOWING INFORMATION MAY BE USEFUL IN COMPLYING WITH VARIOUS STATE AND FEDERAL LAWS AND REGULATIONS UNDER VARIOUS ENVIRONMENTAL STATUTES:

#### REPORTABLE QUANTITY (RQ), EPA REGULATION 40 CFR 302 (CERCLA Section 102)

No RQ for product or any constituent greater than 1% or 0.1% (carcinogen).

#### THRESHOLD PLANNING QUANTITY (TPQ), EPA REGULATION 40 CFR 355 (SARA Sections 301-304)

No TPQ for product or any constituent greater than 1% or 0.1% (carcinogen).

#### TOXIC CHEMICAL RELEASE REPORTING, EPA REGULATION 40 CFR 372 (SARA Section 313)

This product contains approximately 2% 1,2,4-Trimethyl benzene.

#### HAZARDOUS CHEMICAL REPORTING, EPA REGULATION 40 CFR 370 (SARA Sections 311-312)

	Acute	Chronic	Fire	Pressure	Reactive	Not Applicable
EPA HAZARD CLASSIFICATION CODE:	Hazard	Hazard	Hazard	Hazard	Hazard	
	XXX		XXX			

## I. PROTECTION AND PRECAUTIONS

### VENTILATION

Use only with ventilation sufficient to prevent exceeding recommended exposure limit or buildup of explosive concentrations of vapor in air. No smoking, flame or other ignition sources.

### RESPIRATORY PROTECTION

Use supplied-air respiratory protection in confined or enclosed spaces, if needed.

### PROTECTIVE GLOVES

Use chemical-resistant gloves, if needed, to avoid prolonged or repeated skin contact.

### EYE PROTECTION

Use splash goggles or face shield when eye contact may occur.

### OTHER PROTECTIVE EQUIPMENT

Use chemical-resistant apron or other impervious clothing, if needed, to avoid contaminating regular clothing, which could result in prolonged or repeated skin contact.

### WORK PRACTICES / ENGINEERING CONTROLS

Keep containers closed when not in use. Do not store near heat, sparks, flame or strong oxidants. To prevent fire or explosion risk from static accumulation and discharge, effectively ground product transfer system in accordance with the National Fire Protection Association standard for petroleum products.

In order to prevent fire or explosion hazards, use appropriate equipment.

Information on electrical equipment appropriate for use with this product may be found in the latest edition of the National Electrical Code (NFPA-70). This document is available from the National Fire Protection Association, Batterymarch Park, Quincy, Massachusetts 02269.

**PERSONAL HYGIENE**

Minimize breathing vapor or mist. Avoid prolonged or repeated contact with skin. Remove contaminated clothing; launder or dry-clean before re-use. Remove contaminated shoes and thoroughly clean and dry before re-use. Cleanse skin thoroughly after contact, before breaks and meals, and at end of work period. Product is readily removed from skin by waterless hand cleaners followed by washing thoroughly with soap and water.

**J. TRANSPORTATION AND OSHA RELATED LABEL INFORMATION**

**TRANSPORTATION INCIDENT INFORMATION**

For further information relative to spills resulting from transportation incidents, refer to latest Department of Transportation Emergency Response Guidebook for Hazardous Materials Incidents, DOT P 5800.3.

**DOT IDENTIFICATION NUMBER**

UN 1255

**OSHA REQUIRED LABEL INFORMATION**

In compliance with hazard and right-to-know requirements, the following OSHA Hazard Warnings should be found on a label, bill of lading or invoice accompanying this shipment.

**DANGER!**

**COMBUSTIBLE**

Note: Product label will contain additional non-OSHA related information.

The information and recommendations contained herein are, to the best of Exxon's knowledge and belief, accurate and reliable as of the date issued. Exxon does not warrant or guarantee their accuracy or reliability, and Exxon shall not be liable for any loss or damage arising out of the use thereof.

The information and recommendations are offered for the user's consideration and examination, and it is the user's responsibility to satisfy itself that they are suitable and complete for its particular use. If buyer repackages this product, legal council should be consulted to insure proper health, safety and other necessary information is included on the container.

The Environmental Information included under Section H hereof as well as the Hazardous Materials Identification System (HMIS) and National Fire Protection Association (NFPA) ratings have been included by Exxon Company, U.S.A. in order to provide additional health and hazard classification information. The ratings recommended are based upon the criteria supplied by the developers of these rating systems, together with Exxon's interpretation of the available data.

**FOR ADDITIONAL INFORMATION ON HEALTH EFFECTS CONTACT:**

DIRECTOR OF INDUSTRIAL HYGIENE  
EXXON COMPANY, U.S.A.  
P. O. BOX 2180 ROOM 3157  
HOUSTON, TX 77252-2180  
(713) 656-2443

**FOR OTHER PRODUCT INFORMATION CONTACT:**

MANAGER, MARKETING TECHNICAL SERVICES  
EXXON COMPANY, U.S.A.  
P. O. BOX 2180 ROOM 2355  
HOUSTON, TX 77252-2180  
(713) 656-5949

# MEMO

DATE: \_\_\_\_\_

TO: \_\_\_\_\_

SUBJECT: \_\_\_\_\_

SAFTY CLEAN 105

- PARTS CLEANER -

\* UNUSED Product in TANKS \*

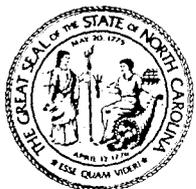
USED in a TROUGH that drained to 55 GAL DRUMS  
which SAFTY KLEEN comes by to pick up.

EPA ENGINEERING

\* CALLED: GLEN SHAUL

- NEED to ASK about bio-TREATMENT OF SAFTY KLEEN + VARSOL
- OR WHERE CAN WE get A REFERENCE OF THE DEGRADABILITY OF PARTICULAR CONSTITUANTS

From: \_\_\_\_\_



North Carolina Department of Environment,  
Health, and Natural Resources



Printed on Recycled Paper

02/07/90

NO. 92891624

**SECTION 1 PRODUCT IDENTIFICATION & EMERGENCY INFORMATION**

PRODUCT NAME

**VAR SOL 18**

**RECEIVED**  
MAY 25 1990

CHEMICAL NAME

Not Applicable: Blend

CAS 8052-41-3

CHEMICAL FAMILY

Petroleum Hydrocarbon

**ENV. MANAGEMENT  
FAYETTEVILLE REG. OFFICE**

PRODUCT APPEARANCE/DESCRIPTION

Clear colorless liquid containing mainly aliphatic hydrocarbons.

**EMERGENCY TELEPHONE NUMBERS: EXXON CHEMICAL AMERICAS 713-870-6000  
CHEMTREC 800-424-9300**

**SECTION 2 HAZARDOUS INGREDIENT INFORMATION**

The composition of this mixture may be proprietary information. In the event of a medical emergency, compositional information will be provided to a physician or nurse. This product is hazardous as defined in 29 CFR1910.1200, based on the following compositional information:

<u>COMPONENT</u>	<u>OSHA HAZARD</u>
Petroleum Hydrocarbons	Combustible
Trimethyl Benzene	OSHA PEL; ACGIH TLV
Stoddard Solvent	

For additional information see Section 3.

**SECTION 3 HEALTH INFORMATION & PROTECTION**

**NATURE OF HAZARD**

**EYE CONTACT:**

Slightly irritating but does not injure eye tissue.

**SKIN CONTACT:**

- Occasional brief contact with the liquid will not result in significant irritation unless evaporation is impeded.
- Corrosive; causes permanent skin damage.
- Low order of toxicity.

**INHALATION:**

High vapor concentrations are irritating to the eyes and the respiratory tract, may cause headaches and dizziness, are anesthetic and may have other central nervous system effects.

Low order of toxicity.

**INGESTION:**

Small amounts of the liquid aspirated into the respiratory system during ingestion, or from vomiting, may cause bronchiopneumonia or pulmonary edema.

Minimal toxicity.

**FIRST AID**

**EYE CONTACT:**

Flush eyes with large amounts of water until irritation subsides. If irritation persists, get medical attention.

**SKIN CONTACT:**

Flush with large amounts of water; use soap if available.

Remove grossly contaminated clothing, including shoes, and launder before reuse.

THIS INFORMATION RELATES TO THE SPECIFIC MATERIAL DESIGNATED AND MAY NOT BE VALID FOR SUCH MATERIAL USED IN COMBINATION WITH ANY OTHER MATERIALS OR IN ANY PROCESS. SUCH INFORMATION IS TO THE BEST OF OUR KNOWLEDGE AND BELIEF, ACCURATE AND RELIABLE AS OF THE DATE COMPILED. HOWEVER, NO REPRESENTATION, WARRANTY OR GUARANTEE IS MADE AS TO ITS ACCURACY, RELIABILITY OR COMPLETENESS. IT IS THE USER'S RESPONSIBILITY TO SATISFY HIMSELF AS TO THE SUITABILITY AND COMPLETENESS OF SUCH INFORMATION FOR HIS OWN PARTICULAR USE. WE DO NOT ACCEPT LIABILITY FOR ANY LOSS OR DAMAGE THAT MAY OCCUR FROM THE USE OF THIS INFORMATION NOR DO WE OFFER WARRANTY AGAINST PATENT INFRINGEMENT.

**INHALATION:**

Using proper respiratory protection, immediately remove the affected victim from exposure. Administer artificial respiration if breathing is stopped. Keep at rest. Call for prompt medical attention.

**INGESTION:**

If swallowed, DO NOT induce vomiting. Keep at rest. Get prompt medical attention.

**ACUTE TOXICITY DATA IS AVAILABLE UPON REQUEST.**

**WORKPLACE EXPOSURE LIMITS****OSHA REGULATION 29CFR1910.1000 REQUIRES THE FOLLOWING PERMISSIBLE EXPOSURE LIMITS:**

A TWA of 25 ppm (125 mg/m<sup>3</sup>) for Trimethyl Benzene.  
A TWA of 100 ppm (525 mg/m<sup>3</sup>) for Stoddard Solvent.

**THE ACGIH RECOMMENDS THE FOLLOWING THRESHOLD LIMIT VALUES:**

a TWA of 25 ppm (125 mg/m<sup>3</sup>) for Trimethyl Benzene.  
a TWA of 100 ppm (525 mg/m<sup>3</sup>) for Stoddard Solvent.

**EXXON RECOMMENDS THE FOLLOWING OCCUPATIONAL EXPOSURE LIMITS:**

100 ppm total hydrocarbon based on composition.

**PRECAUTIONS****PERSONAL PROTECTION**

For open systems where contact is likely, wear chemical resistant gloves, a chemical suit, rubber boots, and a face shield.  
Where contact may occur, wear long sleeves, chemical resistant gloves, and a face shield.  
Where concentrations in air may exceed the limits given in this Section and engineering, work practice or other means of exposure reduction are not adequate, NIOSH/MSHA approved respirators may be necessary to prevent overexposure by inhalation.

**VENTILATION**

The use of local exhaust ventilation is recommended to control process emissions near the source. Laboratory samples should be stored and handled in a lab hood. Provide mechanical ventilation of confined spaces. See respiratory protection recommendations.

**CHRONIC EFFECTS**

Laboratory animal studies have shown that prolonged and repeated inhalation exposure to light hydrocarbon vapors in the same naphtha boiling range as this product can produce adverse kidney effects in male rats. However, these effects were not observed in similar studies with female rats and male and female mice and in limited studies with other animal species. Additionally, in a number of human studies, there was no clinical evidence of such effects at normal occupational levels. It is therefore highly unlikely that the kidney effects observed in male rats have significant implications for humans exposed at or below recommended vapor limits in the workplace.

**CHRONIC TOXICITY DATA IS AVAILABLE UPON REQUEST**

**SECTION 4 FIRE & EXPLOSION HAZARD**

**FLASHPOINT:** 100 Deg F. **METHOD:** TCC **NOTE:** Minimum  
**FLAMMABLE LIMITS:** LEL: 0.9 UEL: 7.0 **NOTE:** Approximately  
**AUTOIGNITION TEMPERATURE:** > 490 Deg F. **NOTE:** Approximately

**GENERAL HAZARD**

Combustible Liquid, can form combustible mixtures at temperatures at or above the flashpoint.

02/07/90 VARSOL 18

NO. 92891624

Static Discharge, material can accumulate static charges which can cause an incendiary electrical discharge .  
"Empty" containers retain product residue (liquid and/or vapor) and can be dangerous. DO NOT PRESSURIZE, CUT, WELD, BRAZE, SOLDER, DRILL, GRIND, OR EXPOSE SUCH CONTAINERS TO HEAT, FLAME, SPARKS, STATIC ELECTRICITY, OR OTHER SOURCES OF IGNITION; THEY MAY EXPLODE AND CAUSE INJURY OR DEATH. Empty drums should be completely drained, properly bunged and promptly returned to a drum reconditioner, or properly disposed of.

**FIRE FIGHTING**

Use water spray to cool fire exposed surfaces and to protect personnel. Isolate "fuel" supply from fire.  
Use foam, dry chemical, or water spray to extinguish fire.  
Avoid spraying water directly into storage containers due to danger of boilover.

**DECOMPOSITION PRODUCTS UNDER FIRE CONDITIONS**

No unusual

**SECTION 5 SPILL CONTROL PROCEDURE****LAND SPILL**

Eliminate sources of ignition. Prevent additional discharge of material, if possible to do so without hazard. For small spills implement cleanup procedures; for large spills implement cleanup procedures and, if in public area, keep public away and advise authorities. Also, if this product is subject to CERCLA reporting (see Section VII) notify the National Response Center.

Prevent liquid from entering sewers, watercourses, or low areas. Contain spilled liquid with sand or earth. Do not use combustible materials such as sawdust.

Recover by pumping (use an explosion proof or hand pump) or with a suitable absorbent.

Consult an expert on disposal of recovered material and ensure conformity to local disposal regulations.

**WATER SPILL**

Remove from surface by skimming or with suitable adsorbents. If allowed by local authorities and environmental agencies, sinking and/or suitable dispersants may be used in non-confined waters.

Consult an expert on disposal of recovered material and ensure conformity to local disposal regulations.

**SECTION 6 NOTES**

No notes applicable.

**SECTION 7 REGULATORY INFORMATION****TSCA:**

This product is listed on the TSCA Inventory as a UVCB (Unknown, Variable Composition or Biological) Chemical at CAS Registry Number 8052-41-3

**CERCLA:**

If this product is accidentally spilled, it is not subject to any special reporting under the requirements of the Comprehensive Response, Compensation, and Liability Act (CERCLA). We recommend you contact local authorities to determine if there may be other local reporting requirements.

**SARA TITLE III:**

Under the provisions of Title III, Sections 311/312 of the Superfund Amendments and Reauthorization Act, this product is classified into the following hazard categories: Immediate health, Delayed Health, Fire.

This product contains the following Section 313 Reportable Ingredients:

<u>COMPONENT</u>	<u>CAS NO.</u>	<u>MAXIMUM %</u>
1,2,4-Trimethyl benzene	95-63-6	2.0

**SECTION 8 TYPICAL PHYSICAL & CHEMICAL PROPERTIES**

<b>SPECIFIC GRAVITY:</b> 0.78 at 60	<b>VAPOR PRESSURE, mmHg at °F:</b> Not Available
<b>SOLUBILITY IN WATER, WT. % AT °F:</b> Insoluble	<b>VISCOSITY OF LIQUID, CST AT °F:</b> 1 at 77
<b>SP. GRAV. OF VAPOR, at 1 atm (Air=1):</b> Approximately 4.8	<b>FREEZING/MELTING POINT, °F:</b> 32 Lower than
<b>EVAPORATION RATE, n-Bu Acetate=1:</b> 0.1, Approximate	<b>BOILING POINT, °F:</b> 308 to 396 Approximately

**SECTION 9 REACTIVITY DATA**

<b>STABILITY:</b> Stable	<b>HAZARDOUS POLYMERIZATION:</b> Will not occur
<b>CONDITIONS TO AVOID INSTABILITY:</b> Not Applicable	<b>COND. TO AVOID HAZARDOUS POLYMERIZATION:</b> Not Applicable
<b>MATERIALS AND CONDITIONS TO AVOID INCOMPATIBILITY:</b> Halogens, molten sulfur, strong oxidizing agents.	
<b>HAZARDOUS DECOMPOSITION PRODUCTS:</b> None	

**SECTION 10 TRANSPORT AND STORAGE**

<b>U.S. DOT CLASSIFICATION:</b> Combustible Liquid	<b>UN NUMBER:</b> U.S. DOT Identification Number: UN 1255
<b>ELECTROSTATIC ACCUMULATION HAZARD:</b> Yes, use proper grounding procedure	
<b>STORAGE TEMPERATURE, °F:</b> Ambient	<b>LOADING/UNLOADING TEMPERATURE, °F:</b> Ambient
<b>STORAGE/TRANSPORT PRESSURE, mmHg:</b> Atmospheric	<b>VISC. AT LOADING/UNLOADING TEMP., cST:</b> 1

**REFERENCE NUMBER:** HDHA-C-25039      **DATE PREPARED:** February 7, 1990      **SUPERCEDES ISSUE DATE:**

FOR ADDITIONAL PRODUCT INFORMATION, CONTACT YOUR TECHNICAL SALES REPRESENTATIVE  
FOR ADDITIONAL HEALTH/SAFETY INFORMATION, CALL 713-870-6885



**RECEIVED**  
JUN 4 1990

ENV. MANAGEMENT  
FAYETTEVILLE REG. OFFICE

DATE: 6-4-90

TIME: 1:15

MESSAGE TO: Steve Barnhardt

FAX NO.: 1-919-486-0707

NO. OF PAGES INCLUDING COVER PG. 5

MESSAGE FROM: Safety-Kleen

SENDER'S FAX NO.: 919-865-3675

SENDER'S TEL NO.: 919-865-5081

**IF YOU HAVE ANY TROUBLE RECIEVING  
THIS TRANSMISSION, PLEASE CALL SEN-  
DER'S TEL. NUMBER!**

# SAFETY-KLEEN 105 PARTS WASHING SOLVENT

## MATERIAL SAFETY DATA SHEET

### SECTION I -- PRODUCT INFORMATION

Safety-Kleen Corporation - 777 Big Timber Road - Elgin, IL 60123  
For Product/Sales Information Call 708/697-8460

#### EMERGENCY TELEPHONE

These numbers are for emergency use only. If you desire non-emergency information about this product, please call the telephone number listed above.

#### MEDICAL:

800/942-5969 or 312/942-5969  
RUSH POISON CONTROL CENTER  
CHICAGO, ILLINOIS (24 HOURS)

#### TRANSPORTATION:

800/424-9300  
CHEMTREC

**IDENTITY (TRADE NAME):** SAFETY-KLEEN 105 PARTS WASHING SOLVENT

**SYNONYMS:** PETROLEUM DISTILLATES, PETROLEUM NAPHTHA, MINERAL SPIRITS, STODDARD SOLVENT

**SK PART NUMBER:** 6617

**FAMILY/CHEMICAL NAME:** HYDROCARBON SOLVENT

**PRODUCT USAGE:** SOLVENT FOR CLEANING AND DEGREASING PARTS

### SECTION II -- HAZARDOUS COMPONENTS

NAME	SYNONYM	%	CAS NO.	OSHA PEL (ppm)	ACGIH TLV (ppm)
Parts Washer Solvent (consists predominantly of C9-C13 hydrocarbon)	Mineral Spirits	(Typical % by Wt.)			
C9-C13 Saturated Hydrocarbon		85	64741-41-9	100 (Stoddard Solvent)	100 (Stoddard Solvent)
*Toluene		0.5	108-88-3	100 150 STEL	100 150 STEL
*Xylene		1.0	1330-20-7	100 150 STEL	100 150 STEL
*Bihyl Benzene		0.5	100-41-4	100 Skin 125 STEL	100 125 STEL
C8+ Aromatics		12.0	Mixture	N/E	N/E
Chlorinated Solvents		(Max 1% by Wt.)			
*1,1,1 Trichloroethane		< 0.5	71-55-6	350 450 STEL	350 450 STEL
*Tetrachloroethylene		< 0.5	127-18-4	25	50 200 STEL

N/E = Not Established

\* See Section X - Other Regulatory Information

### SECTION III -- PHYSICAL DATA

**PHYSICAL STATE, APPEARANCE AND ODOR:** Combustible liquid - clear, green, with characteristic hydrocarbon odor.

**BOILING POINT:** 300° - 429° F

<b>EVAPORATION RATE:</b>	(Butyl Acetate = 1) 0.1
<b>PERCENT VOLATILE:</b>	99.9%
<b>VAPOR DENSITY:</b>	4.9 (Air = 1)
<b>VAPOR PRESSURE:</b>	2 mm of Hg at 68° F
<b>SOLUBILITY IN WATER:</b>	Negligible
<b>pH:</b>	Not Applicable
<b>SPECIFIC GRAVITY:</b>	0.77 to 0.80
<b>MOLECULAR WEIGHT:</b>	Approximately 142
<b>VOLATILE ORGANIC COMPOUNDS:</b>	795 g/L

#### SECTION IV -- FIRE AND EXPLOSION HAZARD DATA

<b>FLASH POINT:</b>	105° F (SETA)
<b>AUTOIGNITION TEMPERATURE:</b>	473° F
<b>CONDITIONS OF FLAMMABILITY:</b>	Materials must be moderately heated before ignition can occur.
<b>FLAMMABLE LIMITS IN AIR - LOWER:</b>	0.7%
<b>FLAMMABLE LIMITS IN AIR - UPPER:</b>	6.0%
<b>EXTINGUISHING MEDIA:</b>	Carbon dioxide, foam, dry chemical, water (mist only).
<b>FIRE FIGHTING PROCEDURES -- SPECIAL:</b>	NFPA 704 Rating 2-2-0

Keep storage tanks cool with water spray. Use self-contained breathing apparatus (SCBA).

#### **UNUSUAL FIRE AND EXPLOSION HAZARDS:**

Decomposition and combustion products may be toxic. Heated tanks may rupture, explode or be thrown into the air. Vapors are heavier than air and may travel great distances to ignition source and flashback.

#### **HAZARDOUS COMBUSTION PRODUCTS:**

Thermal decomposition and burning may produce carbon monoxide.

#### SECTION V -- REACTIVITY DATA

<b>STABILITY:</b>	Normally stable even under fire exposure conditions and is not reactive with water. Normal firefighting procedures may be used.
<b>INCOMPATIBILITY (CONDITIONS TO AVOID):</b>	Strong oxidizing agents (e.g. chlorine, peroxides, strong acids).
<b>HAZARDOUS POLYMERIZATION:</b>	Not known to occur under normal conditions.
<b>HAZARDOUS DECOMPOSITION PRODUCTS:</b>	Normally none; however, incomplete burning may yield carbon monoxide.

#### SECTION VI -- HEALTH HAZARD DATA

<b>PRIMARY ROUTES OF EXPOSURE:</b>	Skin and eye contact; inhalation.
<b>HEALTH HAZARD DATA/SIGNS AND SYMPTOMS OF EXPOSURE:</b>	
<b>ACUTE:</b>	<i>Skin:</i> Prolonged or repeated contact tends to remove skin oils, possibly leading to irritation and dermatitis. No significant skin absorption hazard.

**Eyes:** Contact may cause slight to moderate irritation. High vapor concentrations (> 500 ppm) are irritating to the eyes.

**Inhalation:** High concentrations of vapor or mist may be irritating to the respiratory tract, cause headaches, dizziness, nausea, impaired coordination, anesthesia and may have other central nervous system effects.

**Ingestion:** Low order of acute oral toxicity. May cause irritation of the throat, nausea, vomiting and symptoms of central nervous system depression. Aspiration into the lungs during ingestion or vomiting may cause mild to severe pulmonary injury and possibly death.

**CHRONIC:** Prolonged and/or repeated contact may cause drying and cracking of the skin or dermatitis.

**OTHER POTENTIAL HEALTH HAZARDS:**

The impurities that may be present are not expected to add significantly to the effects of exposure.

**MEDICAL CONDITIONS**

**AGGRAVATED BY EXPOSURE:**

Individuals with pre-existing central nervous system dysfunction may have increased susceptibility to the effects of exposure. Contact with skin may aggravate pre-existing dermatitis.

**CARCINOGENICITY:** Tetrachloroethylene is listed by IARC and NTP as a suspected carcinogen. Studies indicate that Ethyl Benzene and 1,1,1 Trichloroethane are experimental teratogens.

## SECTION VII -- EMERGENCY AND FIRST AID PROCEDURES

- EYES:** For direct contact, flush eyes with water for 15 minutes lifting upper and lower lids occasionally. Consult physician if irritation or pain persists. If irritation or redness from exposure to vapors or mists develop, move victim away from exposure into fresh air.
- SKIN:** Remove contaminated clothing. Wash skin twice with soap and water. If irritation develops and persists, consult a physician.
- INGESTION:** If conscious, dilute with 4 to 8 ounces of water and seek immediate medical attention. DO NOT induce vomiting.
- INHALATION:** Remove to fresh air immediately. Use oxygen if there is difficulty breathing or artificial respiration if respiration has stopped. Do not leave victim unattended. Seek immediate medical attention if necessary.

## SECTION VIII -- PRECAUTIONS FOR SAFE USE AND HANDLING

**SPILL**

**PROCEDURES:** Remove all ignition sources. Ventilate area and avoid breathing vapors. For large spills, isolate area and deny entry. If possible, contain as a liquid for possible re-refining. Absorb onto sand or other absorbent material. Shovel into closable container for disposal. Wear protective equipment specified below. Contain away from surface waters and sewers.

**WASTE DISPOSAL  
METHODS:**

Dispose in accordance with Federal, State, and local regulations. Contact Safety-Kleen regarding recycling.

**HANDLING**

**PRECAUTIONS:** Avoid contact with eyes, skin or clothing. Use in well ventilated area and avoid breathing vapors or mists. Keep away from heat, sparks and open flames.

**SHIPPING AND STORING**

**PRECAUTIONS:** Empty product containers may contain product residue. Do not pressurize, cut, heat, weld, grind or expose containers to flame or other sources of ignition. Keep container tightly closed when not in use and during transport.

**PERSONAL  
HYGIENE:**

Use good personal hygiene. Wash thoroughly with soap and water after handling and before eating, drinking or using tobacco products. Launder contaminated clothing and clean protective equipment before reuse.

<b>SECTION IX -- CONTROL MEASURES</b>
---------------------------------------

**VENTILATION:**

Provide local exhaust or general dilution ventilation as determined necessary to maintain concentrations of vapors or mists below applicable exposure limits. Where explosive mixtures may be present, systems safe for such locations should be used.

**PROTECTIVE  
GLOVES:**

Use nitrile or neoprene gloves to prevent contact with skin.

**EYE  
PROTECTION:**

Where there is likelihood of spill or splash, wear chemical goggles or faceshield. Contact lenses should not be worn.

**RESPIRATORY  
PROTECTION:**

Use NIOSH-approved respiratory protective equipment when concentration of vapors or mists exceeds applicable exposure limit. Depending on the airborne concentration, use a respirator or gas mask with appropriate cartridges and canisters (for organic vapor with mist prefilter). A self-contained breathing apparatus (SCBA) is required for large spills and emergencies. Selection and use of respiratory protective equipment should be in accordance with OSHA General Industry Standard 29 CFR 1910.134 - Respiratory Protection.

**OTHER PROTECTIVE  
EQUIPMENT:**

Wear solvent-resistant boots, apron or other protective clothing where spills and splashes are possible. A source of clean water should be available in work areas for flushing the eyes and skin.

<b>SECTION X -- OTHER REGULATORY INFORMATION</b>
--

**DOT PROPER SHIPPING NAME:** Petroleum Naphtha

**DOT CLASS:** Combustible Liquid

**DOT NUMBER:** UN 1255

**SARA TITLE III:** Product contains a toxic chemical or chemicals subject to the reporting requirements of Section 313 of Title III of the Superfund Amendments and Reauthorization Act of 1986 and 40 CFR Part 372. Toxic constituents are listed with an asterisk in Section II of this Material Safety Data Sheet.

Product poses the following physical and/or health hazard(s) as defined in 40 CFR 370.3 (Sections 311, 312 of SARA Title III):

Immediate (Acute) Health Hazard  
Delayed (Chronic) Health Hazard  
Fire Hazard

<b>SECTION XI -- PREPARATION INFORMATION</b>
--

**PREPARED BY:** SK Product Review Committee **FORM NO.** 900-14-001

**ORIGINAL ISSUE DATE:** July 20, 1989 **REVISED:** March 12, 1990 **SUPERSEDES:** July 20, 1989

User assumes all risks incident to the use of this product. To the best of our knowledge, the information contained herein is accurate. However, Safety-Kleen assumes no liability whatsoever for the accuracy or completeness of the information contained herein. No representations or warranties, either express or implied, or merchantability, fitness for a particular purpose or of any other nature are made hereunder with respect to information or the product to which information refers. The data contained on this sheet applies to the material as supplied to the user.

# POLLUTION INCIDENT/U.S.T. LEAK REPORTING FORM

Division of Environmental Management  
GROUNDWATER SECTION

1. Incident # 5531  
2. Tabulate only \_\_\_\_\_

## TYPE OF ACTION      POLLUTION CONTROL BRANCH

<b>A</b>	1. Emergency Response	3. Complaint Investigation	⑤ U.S.T. Leak	
	2. Compliance Investigation	4. Routine Inventory	6. Other: _____	
POTENTIAL HAZARDS: 1. Toxic Chemicals    2. Radioactivity    ③ Air Emissions    4. Explosives    5. Fire				

## INCIDENT DESCRIPTION

Incident Location/Name <del>RAEIGH PLANT CORP</del> <u>Burlington Industries - Raeford Plt</u>				
Address <u>P.O. Box 40</u>				
City/Town <u>RAEFORD</u>		County <u>HOKE</u>	Region <u>FAYETTEVINE</u>	
Briefly Describe Incident <u>DURING UNDERGROUND TANK REMOVALS, CONSULTANT NOTED POTENTIAL PROBLEMS.</u>				
<b>B</b> <u>APPARENTLY 2 OF THE VARSOL-TYPE STORAGE TANKS SHOWED EVIDENCE OF RELEASE. APPROX. 100 YARDS OF SOIL WAS REMOVED FROM TANK AREA AND STOCK-PILED ON-SITE.</u>				
Date Incident Occurred or Leak Detected <u>- DURING TANK PULLS</u> <u>DATE NOT YET KNOWN.</u> <u>- SHOULD BE INCLUDED IN UPCOMING REPORT.</u>	If L.U.S.T., How Leak Was Detected	1. Tank Gauging	5. Interstitial Monitoring	8. Other _____
		2. Vapor Monitoring	⑥ Tank Removal	_____
		3. GW Monitoring	7. Tightness Test	_____
		4. Contractor who tightness tested, removed tank, or installed leak detection system. _____		

## PERSON REPORTING INCIDENT

<b>C</b>	Name <u>JEFF KNIGHT</u>	Date <u>3/13/90</u>	Time <u>5:30 PM</u>
	Company/Agency <u>FOUR SEASONS</u>	Telephone <u>919/273-2718</u>	
	REPORTED BY: 1. Tank owner/operator    2. Government agency    ③ Private (3rd party) 4. Facility owner (Non-L.U.S.T.)    5. Other: _____		

## RECOMMENDED ACTION

<b>D</b>	(MULTIPLE CHOICES POSSIBLE)								
	1. Investigation complete		3. Initiate/complete cleanup		5. Drilling support		7. Confirm leak		
	② Continue investigation		4. Long-term remedial action		6. Issue NOV		8. Monitoring plan		
	Comments <u>PRESENTLY AWAITING REPORT FROM AQUATELA BEFORE REQUIRING ADDITIONAL ACTION.</u>								
CLEANUP LEAD				① Responsible Party				Site Priority Ranking <u>35</u>	
D.E.M. Regional Contact <u>Stephen A. Barnhardt</u>				Signature <u>[Signature]</u>				Date <u>4/4/90</u>	

# POLLUTION INCIDENT/U.S.T. LEAK REPORTING FORM

## POLLUTANTS INVOLVED

	MATERIALS INVOLVED	AMOUNT STORED OR TANK CAPACITY	AMOUNT LOST	AMOUNT RECOVERED
<b>E</b>	#1 <u>VAR SOL - SAFETY CLEAN</u>	<u>1000</u>	<u>UNKNOWN</u>	<u>NONE</u>
	#2 <u>VAR SOL - SAFETY CLEAN</u>	<u>1000</u>	<u>UNKNOWN</u>	<u>NONE</u>
	_____	_____	_____	_____

## IMPACT ON SURFACE WATERS

<b>F</b>	WATERS AFFECTED	1. Yes	<input checked="" type="radio"/> 2. No	3. Potentially	Distance to Stream(ft) <u>(1) 2100' (2) 1900</u>
	Fish Kill	1. Yes	<input checked="" type="radio"/> 2. No		Name of Stream <u>UNKNOWN TRIBUTARY OF TONEYS CREEK</u>

## IMPACT ON DRINKING WATER SUPPLIES

<b>G</b>	WELLS AFFECTED	1. Yes	<input checked="" type="radio"/> 2. No	3. Potentially	No. of Wells Affected <u>N/A</u>	No. of Wells Potentially Affected <u>2</u>
	Population Served By Affected Wells <u>NONE/PROCESS</u>	Estimated Population Served By Potentially Affected Wells <u>N/A</u>			Aquifer(s) Being Used <input checked="" type="radio"/> 1. Water Table    2. Confined    3. Bedrock	

## POTENTIAL SOURCE OF POLLUTION

<b>H</b>	<u>PRIMARY SOURCE OF POTENTIAL POLLUTION</u> (Select one)	<u>PRIMARY POLLUTANT TYPE</u> (Select one)	<u>LOCATION</u>	<u>SETTING</u>
	1. Intentional dump	13. Well	1. Pesticide/herbicide	1. Residential
	2. Pit, pond, lagoon	14. Dredge spoil	2. Radioactive waste	<input checked="" type="radio"/> 2. Industrial
	<input checked="" type="radio"/> 3. Leak-underground	15. Nonpoint source	3. Gasoline/diesel	3. Urban
	4. Spray irrigation		4. Heating oil	4. Rural
	5. Land application		<input checked="" type="radio"/> 5. Other petroleum prod.	
6. Animal feedlot		6. Sewage/septage		
7. Source unknown		7. Fertilizers		
8. Septic tank		8. Sludge		
9. Sewer line		9. Solid waste leachate		
10. Stockpile		10. Metals		
11. Landfill		11. Other Inorganics		
12. Spill-surface		12. Other organics		
If other sources, list corresponding No's. <u>N/A at this time</u>			Confirmed Violation of: 1. 15 NCAC 2L _____ Yes _____ No 2. Article 21A Part I _____ Yes _____ No 3. Article 21A Part II _____ Yes _____ No 4. Federal/State U.S.T. rules _____ Yes _____ No	
If multiple pollutant types, list corresponding No's. <u>N/A</u>				
If PIRF previously submitted for Nonprimary Sources, list incident No's. <u>N/A</u>				

# POLLUTION INCIDENT/U.S.T. LEAK REPORTING FORM

## POTENTIAL SOURCE OWNER-OPERATOR

Potential Source Owner-Operator <b>Burlington INDUSTRIES</b>				Telephone <b>919/875-3931</b> EXT. <b>405</b>
Company <b>Burlington INDUSTRIES / Andrew Allen</b>		Street Address <b>P.O. Box 40</b>		
City <b>Raeford</b>	County <b>Sutton Hoke</b>	State <b>NC</b>	Zip Code <b>28376</b>	
U.S.T. REGISTERED 1. YES 2. NO <b>UNKNOWN</b>	SOURCE/U.S.T. IN USE 1. N/A 2. YES 3. NO	PERMIT TYPE <b>1</b> N/A 1. Non-discharge 2. Oil terminal 3. Landfill 4. Mining 5. NPDES 6. RCRA	OWNERSHIP 0. N/A 1. Municipal 2. Military 3. Unknown <b>4</b> Private 5. Federal 6. County 7. State	OPERATION TYPE 0. N/A 1. Public Service 2. Agricultural 3. Residential 4. Educational/Religious <b>5</b> Industrial 6. Commercial 7. Mining
FACILITY ID# <b>UNKNOWN</b>	SOURCE PERMITTED 1. Yes 2. No <b>UNKNOWN</b>			
FEDERAL U.S.T. DESIGNATION <b>1</b> Regulated 2. Non-Regulated	PERMIT NUMBER			
STATE U.S.T. DESIGNATION <b>1</b> Commercial 2. Non-Commercial	SOURCE ON ERRIS LIST 1. Yes 2. No <b>?</b>			
	ERRIS NUMBER <b>1</b>			
U.S.T. LEAK PREVENTION MEASURES Was tank retrofitted with overfill protection? 1. Yes 2. No <b>UNKNOWN</b> When and by whom? _____ Was tank retrofitted with interior lining? 1. Yes 2. No <b>UNKNOWN</b> When and by whom? _____ Was tank retrofitted with cathodic protection? 1. Yes 2. No <b>UNKNOWN</b> When and by whom? _____				REASON FOR INCIDENT 1. Transportation 2. Mechanical failure 3. Facility 4. Inventory only 5. Human error 6. Vandallism <b>7</b> Unknown

## ACTIONS TAKEN

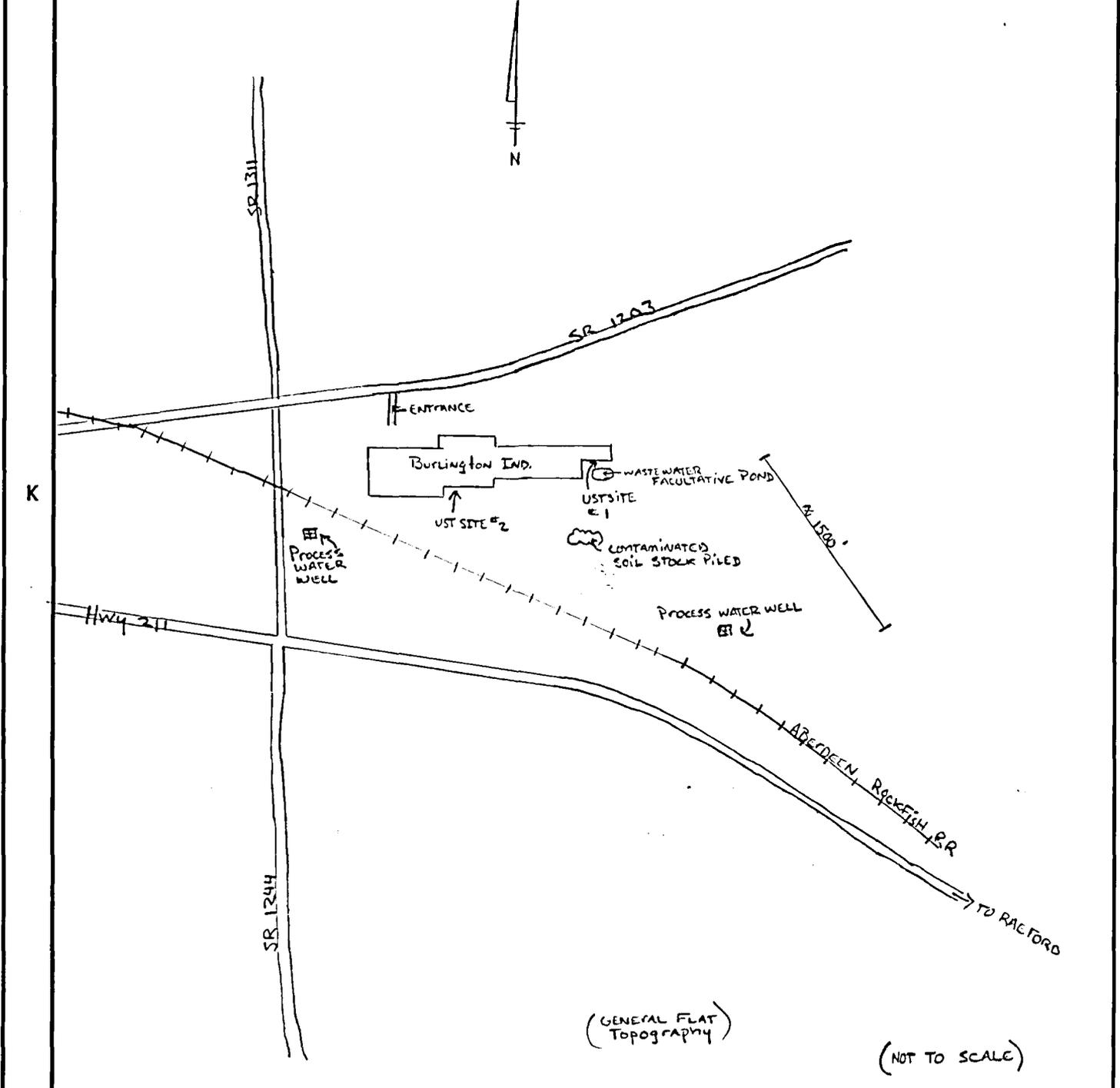
J	Investigation, Containment, Cleanup, etc. <b>TANKS WERE REMOVED, SOIL SAMPLES COLLECTED, SOME OF CONTAMINATED SOIL WAS REMOVED AND STOCKPILED AND COVERED 200 YARDS. CONSULTANT (AQUATERA) IS MAKING OUT A REPORT OF SAMPLING POINTS ANALYTICAL RESULTS, AND SITE CHARACTERISTICS ETC.</b>
Circle Appropriate Responses Lab Samples Taken By:    1. D.E.M.            2. D.H.S. <b>3</b> Responsible Party            4. None	
Samples Taken Include 1. Groundwater <b>2</b> Soil            3. Surface Water	

# POLLUTION INCIDENT/U.S.T. LEAK REPORTING

## LOCATION OF INCIDENT

7 1/2 Min. Quad Name <b>RAEFORD</b>	Lat. : Deg : Min : Sec : (1) 34° 59' 42" (2) 34° 59' 44"
Five Min. Quad Number	Long. : Deg : Min : Sec : (1) 79° 15' 33" (2) 79° 15' 23"

Draw Sketch of Area



Sketch Should Identify The Following:

- |                               |  |  |
|-------------------------------|--|--|
|                               | 1. Pollutant Source(s)                         | 2. Impacted and Threatened Water Supplies                |
| 3. Direction of Overland Flow | 4. Significant Recharge and Discharge Features | 5. Relative Physical Structures (roads, buildings, etc.) |
| 6. North Arrow                | 7. Scale                                       |  |

It is the intent of the tank(s) owner, to report a summary of activities related to the abatement of spilled or released Petroleum or Hazardous Substances. This document is submitted as a confirmation of those United States Environmental Protection Agency notification requirements in 40 CFR, Part 280.62, [b].

# NOTIFICATION OF RESPONSE ACTIVITIES

**RECEIVED**  
MAR 16 1990

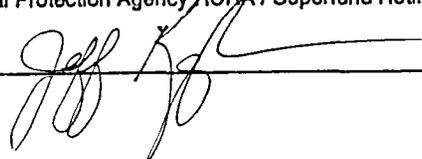
OWNERSHIP OF TANK(S)	LOCATION OF TANK(S)
ENV. MANAGEMENT FAYETTEVILLE REG. OFFICE	
Name: <u>BURLINGTON INDUSTRIES, INC.</u>	Site Name: <u>BI - RAEFORD PLANT</u>
Address: <u>3330 W. FRIENDLY AVE.</u>	Address: <u>ABERDEEN RD.</u>
<u>GREENSBORO, N.C. 27420</u>	<u>RAEFORD, N.C. 28376</u>
Phone Number: <u>(919) 379-2000</u>	County: <u>HOKE</u>

INITIAL NOTIFICATION		
As required in 40 CFR, Part 280.61 [a], upon confirmation of a release from a UST system the owner or operator is responsible for the notification of the release to the implementing state agency within 24 hours of such release.		
Notification By: <u>JEFF KNIGHT - <sup>FOUR SEASONS</sup> IND. SERVICES</u>	Notification Time: <u>5:30 P.M.</u>	Notification Date: <u>3-13-90</u>
Agency Notified: <u>NCDEHR</u>	Contact: <u>JIM BALES</u>	Phone: <u>(919) 486-1541</u>

INITIAL ABATEMENT CHECK LIST	
As required in 40 CFR, Part 280.62 [a], upon confirmation of a release from a UST system the owner or operator is responsible for performing the following abatement measures relative to such releases. This check list is prepared to meet the requirements.	
<u>YES</u>	1.) Did the owner or operator remove as much of the regulated substance from the UST system, as was necessary to prevent further release to the environment?
<u>YES</u>	2.) Did the owner or operator visually inspect any aboveground releases or exposed belowground releases and prevent further migration of released substance into the surrounding soils and ground water?
<u>YES</u>	3.) Did the owner or operator continue to monitor and mitigate, any additional fire and safety hazards posed by vapors or free product that have migrated from the UST excavation zone and entered subsurface structures?
<u>YES</u>	4.) Did the owner or operator remedy hazards posed by contaminated soils that are excavated or exposed as a result of release confirmation, site investigation, abatement, or corrective action activities?
<u>YES</u>	5.) Did the owner or operator measure for the presence of a release where contamination is most likely to be present at the UST site?
<u>NA</u>	6.) Did the owner or operator investigate to determine the possible presence of free product and begin free product removal as soon it was practicable?
Comments: _____	

UST SYSTEM ABATEMENT OPERATIONS TO BE PERFORMED BY:	
(Contractor) Name: <u>FOUR SEASONS INDUSTRIAL SERVICES</u>	
Address: <u>207 ROBBINS ST., GREENSBORO</u>	State: <u>NC</u> Zip: <u>27406</u>
Contact: <u>JEFF KNIGHT</u>	Phone: <u>(919) 273-2718</u>
<u>YES</u>	Is this contractor / operator knowledgeable of the requirements for the abatement and remediation of UST system releases?
<u>YES</u>	Is this contractor / operator and employees specifically medically monitored as required by DOL OSHA 29 CFR, Part 1910.120 [f] ?
<u>YES</u>	Is this contractor / operator and employees specifically Haz-Sub trained as required by DOL OSHA 29 CFR, Part 1910.120 [e] ?

Tank owners are required to notify the implementing state agency at least 20 days after the release notification as required in 40 CFR, Part 280.62 [b]. For further information contact the U. S. Environmental Protection Agency RCRA / Superfund Hotline at 800-424-9346

Submitted By: JEFF KNIGHT Signature:  Date: 3-13-90

Incident Name Burlington Industries  
Region/County FAYETTEVILLE Region / HOKE  
Groundwater Incident File # \_\_\_\_\_  
Ranking Performed by S.A. BARNHART Date 4/6/90

NORTH CAROLINA

GROUNDWATER CONTAMINATION INCIDENT MANAGEMENT  
SITE PRIORITY RANKING SYSTEM

	<u>Points Awarded</u>
I. IMMINENT HAZARD ASSESSMENT	
A. Explosion - free product in confined areas or vapor phase product detected at or above 20% of the lower explosive limit; award 50 points total	<u>0</u>
B. Fire - free product subject to ignition in exposed areas such as surface water impoundments, streams, excavations, etc.; award 50 points total	<u>0</u>
II. EXPOSURE ASSESSMENT	
A. Contaminated Drinking Water Supplies	
1. Private, domestic water supply well containing substances in concentrations exceeding Class GA underground water quality standards; award 10 points per well	<u>0</u>
2. Public or institutional water supply well containing substances in concentrations exceeding Class GA underground water quality standards; award 30 points per well	<u>0</u>
3. Exceedences of Class WS-1 surface water quality standards as a result of groundwater discharge; award 20 points per surface water body impacted	<u>0</u>
4. If a water supply well identified in items II.A.1 and II.A.2 cannot be replaced by an existing public water supply source requiring hook-up only; award additional 10 points per irreplaceable well	<u>0</u>

B. Threat To Uncontaminated Drinking Water Supplies

1. Private, domestic water supply well located within 1500 feet downgradient of contaminant source; award 10 points per well 0
2. Public or institutional water supply well located within 1/2 mile downgradient of contaminant source; award 15 points per well 0
3. Raw surface water intake for public water supply located within 1/2 mile downgradient of contaminant source; award 5 points per water supply system 0
4. If any well identified in items II.B.1 and II.B.2 is located within 250 feet of contaminant source; award additional 20 points total 0

C. Vapor Phase Exposure

1. Product vapors detected in inhabitable building(s); award 30 points total 0
2. Product vapors detected in other confined areas (uninhabitable buildings, sewer lines, utility vaults, etc.); award 5 points total 0

III. CONTAMINANT HAZARD ASSESSMENT (chemical groups are categorized based on toxicity, mobility and persistence in the environment). Evaluate the most hazardous substances detected and select only one of the following:

A. Award 30 points total if contaminants detected are identified with any of the following groups: 30 (4/8/91)

1. Aromatic (Benzene) Acids
2. Aromatic Hydrocarbons (Benzene Derivatives)
3. Sulfonated Hydrocarbons
4. Halogenated Hydrocarbons
5. Alkaloids
6. Anilines
7. Phenols
8. Aldehydes
9. Ketones
10. Organic Sulfur Compounds (Sulfides, Mercaptans)
11. Organometallic Compounds

12. Cyanides
13. Esters
14. Metal Salts, Including Heavy Metals

B. Award 20 points total if contaminants detected are identified with any of the following groups: 20

1. Aliphatic (Fatty) Acids
2. Alcohols
3. Aliphatic Hydrocarbons (Petroleum Derivative)
4. Pyridines
5. Thiocyanides
6. Mineral and Metal Acids
7. Mineral and Metal Bases
8. Oxides
9. Sulfides

C. Award 10 points total if contaminants detected are identified with any of the following groups: 0

1. Aliphatic Amines and Their Salts
2. Sugars and Cellulose
3. Carbon and Graphite

#### IV. SOURCE ASSESSMENT

A. Free product thickness of  $\geq 1/4$  inch detected on water table in observation or monitoring well; award 20 points total 0

B. Contaminated Soil (select only one answer)

1. Soil saturated with product (saturation determined by release of free liquid upon compaction of a soil sample by hand pressure); award 10 points total 0

2. Soil exhibiting organic vapor content above 100 ppm as measured by organic vapor or volatile organic detection equipment; award 5 points total 5

C. Uncontrolled or Unabated Primary Source (including dumpsites, stockpiles, lagoons, land applications, septic tanks, landfills, underground and above ground storage tanks, etc.)

1. Suspected or confirmed source remains in active use and continues to receive raw product, wastewater or solid waste; award 20 points per source

0

2. Active use of suspected or confirmed source has been discontinued or source was caused by a one-time release of product or waste, however, source continues to release product or contaminants into the environment; award 10 points per source

0

V. ENVIRONMENTAL VULNERABILITY ASSESSMENT

A. Vertical Contaminant Migration - Literature or well logs indicate that no confining layer is present above bedrock or above twenty feet below land surface; award 10 points total

0 10 4/8/91

B. Horizontal Contaminant Migration - Data or observations indicate that no discharge points or aquifer discontinuities exist between the source and the nearest downgradient drinking water supply; award 10 points total

10

C. Hydraulic Gradient Is Determined By (select only one answer):

1. Calculations based on groundwater level measurements; award 10 points total

10 4/8/91

2. Observation of significant recharge/discharge features in the vicinity of contaminant source and local topographic features; award 5 points total

0

3. Observation of local topographic features only; award 0 points

0

D. Existing Groundwater Quality

1. Analytical test(s) performed on groundwater sample(s) obtained from site confirm presence of substances in concentrations exceeding Class GA underground water quality standards; award 10 points total

10 4/8/91

2. Source(s) identified in Section IV constitute the only known source(s) of contamination resulting in exposure or potential exposure identified in Section II; award 10 points total

0

TOTAL POINTS AWARDED

~~35~~

95.00