



Department of Energy

Richland Field Office
P.O. Box 550
Richland, Washington 99352

Incoming:9307006

93-RPS-297

JUL 30 1993

Mr. David C. Nylander
Office Manager
State of Washington
Department of Ecology
P.O. Box 47600
Olympia, Washington 98504-7600

Dear Mr. Nylander:

TRANSMITTAL OF 1993 UNDERGROUND STORAGE TANK TIGHTNESS TESTING CHECKLISTS

This letter transmits the form, "Underground Storage Tank (UST) Tightness Testing Checklist" for eighteen of the active UST on the Hanford Site, the tightness testing results for each UST, and a proposal for the closure of UST 1172-9. Successful tightness testing was completed for all but two of the USTs required to be tested at the Hanford Site in calendar year (CY) 1993 pursuant to Washington Administrative Code 173-360-345. These two USTs were 1172-9 and 2721-HP-18.

The results of the tightness test for UST 1172-9 were inconclusive. The testing company, Earth Science Technology (EST), stated that the test results indicated that UST 1172-9 was probably not leaking, but this fact could not be certified because the temperature variations during the test were outside the limits of the test procedure protocol. UST 1172-9 is scheduled for removal as part of Project L-044 "Hanford Infrastructure USTs." Closure activities on UST 1172-9 will commence in August 1993. UST 2721E-HP-18 was not tested because closure activities will commence on this UST in CY 1993.

The eighteen checklists for the active USTs were completed by EST. Should you have any questions or comments, please contact me or Ms. A. L. Rodriguez of my staff on 372-0277.

Sincerely,

Robert G. Holt, Acting Program Manager
Office of Environmental Assurance,
Permits, and Policy

EAP:ALR

Enclosures:

1. Summary of Results
2. UST Checklists
3. Proposed Closure Schedule

cc: K. Giese, WHC, w/o encl.
R. Moyer, Ecology, w/encl.
R. Oldham, WHC, w/encl.
J. Phillips, Ecology, w/originals



1993 Underground Storage Tank Tightness Testing Results

TANK ID	AREA	CAPACITY GALLONS	TYPE	RESULT
2713W-22	2W/2713W	4000	UNLEADED	PASSED
2713W-23	2W/2713W	2000	UNLEADED	PASSED
2713W-24	2W/2713W	4000	DIESEL	PASSED
100-B-1	100B/181B	10000	DIESEL	PASSED
2713W-21	2W/2713W	1500	OIL-1	PASSED
2713E-19	2E/2713E	4000	UNLEADED	PASSED
2713E-20	2E/2713E	2000	DIESEL	PASSED
TK-101	2E/225BC	1000	DIESEL	PASSED
244-AR	2E/244-AR	550	DIESEL	PASSED
2721E-HP-18	2E/2721E	300	DIESEL	NOT TESTED-2
1171-5	1100/1171	2000	OIL-1	PASSED
3621-D	300/3621-D	4000	DIESEL	PASSED
6652-C	600/6652C	5000	UNLEADED	PASSED
1172-8	1100/1172A	15000	UNLEADED	PASSED
1172-9	1100/1172A	15000	UNLEADED	INCONCLUSIVE-3
1172-10	1100/1172A	15000	DIESEL	PASSED
1172-11	1100/1172A	6000	WASTE FUEL-1	PASSED
400FFTF-T17	400/4621E	20000	DIESEL	PASSED
400FFTF-T18	400/4621W	20000	DIESEL	PASSED
400FFTF-T24	400/481	550	DIESEL	PASSED

PRESSURE TEST FUEL LINES FOR TANKS	AREA	RESULT
1172-8	1171 AREA FUELING STATION	PASSED
1172-9	1171 AREA FUELING STATION	PASSED
1172-10	1171 AREA FUELING STATION	PASSED

1. Oil and waste fuel tanks were filled with diesel fuel before the test.
2. Closure activities will commence in calendar year 1993.
3. Closure activities will commence in August 1993.

GROUNDWATER ELEVATIONS RELATIVE TO UST ELEVATIONS

It was necessary to review information on groundwater levels in the areas where the tanks were located. The following table provides the approximate distance from the Underground Storage Tanks (UST) to the average groundwater elevation. It was assumed that the average burial depth of each UST was ten feet.

AREA	GROUNDWATER ELEVATION (FEET)	REFERENCE, PAGE	SURFACE ELEVATION (FEET)	REFERENCE, PAGE	APPROXIMATE DISTANCE FROM WATER LEVEL TO THE UST (FEET)
100B	400	A, 3F-47	426	C, SHT 1/1	16
200E	405	A, 3F-50	600 - 700	A, 3F-1	185 - 285
200W	450	A, 3F-47	600 - 700	A, 3F-1	140 - 240
300	350	""	400	B, SHT 8/8	40
400	390	""	500	A, 3F-1	100
1100	360	""	410	B, SHT 8/8	40
RATTLESNAKE MOUNTAIN	1400	A, 3F-48	3400	B, SHT 6/8	1990

- A. DOE RL, 1992, "200 West Groundwater Aggregate Area Management Study Report," DOE/RL-92-16.
- B. DOE RL, "Hanford Area USGS Octant Map," Drawing H-6-2435, March 1990.
- C. DOE RL "100 Area Topographic Map," Drawing H-13-000103, August 1991.

PROPOSED CLOSURE SCHEDULE OF UST 1172-9

UST 1172-9 is scheduled for removal as part of Project L-044, "Hanford Infrastructure Underground Storage Tanks (UST)". The Project L-044 schedule calls for removal of UST 1172-9 in the time period of December 1993 to February 1994. It is proposed to initiate closure activities for UST 1172-9 before August 1993.

In addition to UST 1172-9, there are three other USTs at the 1100 Area Fueling Facility that will also be removed as part of Project L-044. These other USTs that are scheduled for removal are 1172-8, 1172-10, and 1172-11. All four USTs will be removed along with the piping and service islands, and only two new USTs will be installed.

9356259D
Enclosure 2



UNDERGROUND STORAGE TANK Tightness Testing Checklist

T 21-21

The purpose of this form is to certify the proper tightness testing of underground storage tank (UST) systems including connecting underground piping. Tightness testing shall be conducted in accordance with Chapter 173.360 WAC.

This Tightness Testing Checklist shall be completed and signed by a Licensed Tightness Testing Supervisor. The supervisor shall be on site when all tank tightness testing activities are being conducted. The firm which employs the licensed supervisor shall also be licensed by the Washington State Department of Ecology as a Service Provider.

Underground storage tank rules require owners/operators to employ a licensed tank services provider to repair, replace, upgrade, or close the UST system and to begin corrective action in accordance with WAC 173-360-399 if the test results indicate that a leak exists.

For further information about completing this form, please contact the Department of Ecology UST Program.

A separate checklist must be completed for each UST system (tank and associated piping) tightness tested, except that separate UST systems tightness tested at one site may be reported together by completing page 2 of this form separately for each system. The completed checklist should be mailed to the following address within 30 days of completion of tightness testing:

Underground Storage Tank Section
Department of Ecology
Mail Stop PV-11
Olympia, WA 98504-8711

1. UST SYSTEM OWNER AND LOCATION

UST Owner/Operator: U.S. DEPARTMENT OF ENERGY-RICHLAND OPERATIONS

Owners Address: 825 JADWIN 550
Street P.O. Box
RICHLAND WA 99352
City State ZIP-Code

Telephone: (509) 376-7387

Site ID Number (on invoice or available from Ecology if tank is registered): 012763

Site/Business Name: U.S. DEPARTMENT OF ENERGY-RICHLAND OPERATIONS

Site Address: 825 JADWIN P.O. BOX 550 BENTON
Street County
RICHLAND WA 99352
City State ZIP-Code

2. TIGHTNESS TESTING PERFORMED BY:

Firm: EARTH SCIENCE TECHNOLOGY License Number: S000255

Address: 8196 SW HALL BLVD. SUITE 210
Street P.O. Box
BEAVERTON OREGON 97005
City State ZIP-Code

Telephone: (503) 643-5374

Licensed Supervisor: FRANK NICHOLS Tightness Testing License Number: 13512

Sections 1, 2 and 3 must be completed separately for each tank and associated piping tested at the site. For additional tanks you may photocopy this form prior to completing.

3. TANK AND TESTING INFORMATION

1. Tank ID Number (as registered with Ecology): 2713 W-21 2. Date installed: 1/1/43
3. Tank capacity in gallons: 1500 4. Date of tightness test: 6/22/93
5. Last substance stored: Waste Oil 6. Is tank compartmentalized? NO
7. Tank is: single wall double wall
8. Reason for conducting tightness test:
- To comply with leak detection requirements in UST rules
- To bring temporarily closed tank back into service
- Tank or piping repair
- Other (describe) _____
9. Type of test conducted: 10. Test method type:
- Tank tightness test only Overfill
- Line tightness test only Underfill volumetric
- Tank and lines tested separately Nonvolumetric
- Total system test (tank and lines tested together)
11. Tightness testing method(s) used (indicate if more than one method was used - see note following Item 12):
- Test method name/version HORNER EZY-CHEK
- Test method manufacturer HORNER CREATIVE PRODUCTS
12. If a tank tightness test was conducted, indicate the percentage of tank volume that was filled with product during the test: 100%
- Note: A tank must be tested up to the product level limited by the overfill prevention device. If an overfill prevention device is not installed, a tank must be tested up to the 95% full level. When underfill volumetric testing methods are used, the tank must be: 1) filled with product to the 95% full level or 2) the portion of the tank above the product level must be tested using a nonvolumetric method which meets performance standards, for tightness testing.
13. Indicate the method used to determine if groundwater was present above the bottom of the tank during the test (for single wall tanks): PER CUSTOMER INFO

4. CHECKLIST

The following items shall be initialed by the licensed supervisor whose signature appears below.

	Yes	No	NA*
<p>1. Has the tightness testing method used been demonstrated to meet the performance standard specified in the UST rules for the conditions under which the test was conducted? (e.g., detecting a 0.10 gallon per hour leak rate with probability of detection of at least 95% and a probability of false alarm of no more than 5%)</p> <p>Note: A copy of Ecology's policy for demonstrating that leak detection methods meet performance standards may be obtained by contacting Ecology's UST section in Olympia</p>			



UNDERGROUND STORAGE TANK Tightness Testing Checklist

T 273W-22

The purpose of this form is to certify the proper tightness testing of underground storage tank (UST) systems including connecting underground piping. Tightness testing shall be conducted in accordance with Chapter 173.360 WAC.

This Tightness Testing Checklist shall be completed and signed by a Licensed Tightness Testing Supervisor. The supervisor shall be on site when all tank tightness testing activities are being conducted. The firm which employs the licensed supervisor shall also be licensed by the Washington State Department of Ecology as a Service Provider.

Underground storage tank rules require owners/operators to employ a licensed tank services provider to repair, replace, upgrade, or close the UST system and to begin corrective action in accordance with WAC 173-360-399 if the test results indicate that a leak exists.

For further information about completing this form, please contact the Department of Ecology UST Program.

A separate checklist must be completed for each UST system (tank and associated piping) tightness tested, except that separate UST systems tightness tested at one site may be reported together by completing page 2 of this form separately for each system. The completed checklist should be mailed to the following address within 30 days of completion of tightness testing:

Underground Storage Tank Section
Department of Ecology
Mail Stop PV-11
Olympia, WA 98504-8711

1. UST SYSTEM OWNER AND LOCATION

UST Owner/Operator: U.S. DEPARTMENT OF ENERGY-RICHLAND OPERATIONS

Owners Address: 825 JADWIN 550
Street P.O. Box
RICHLAND WA 99352
City State ZIP Code

Telephone: (509) 376-7387

Site ID Number (on invoice or available from Ecology if tank is registered): 012763

Site/Business Name: U.S. DEPARTMENT OF ENERGY-RICHLAND OPERATIONS

Site Address: 825 JADWIN P.O. BOX 550 BENTON
Street County
RICHLAND WA 99352
City State ZIP Code

2. TIGHTNESS TESTING PERFORMED BY:

Firm: EARTH SCIENCE TECHNOLOGY License Number: S000255

Address: 8196 SW HALL BLVD. SUITE 210
Street P.O. Box
BEAVERTON OREGON 97005
City State ZIP Code

Telephone: (503) 643-5374

Licensed Supervisor: FRANK NICHOLS Tightness Testing License Number: 13512

Additional tanks must be completed separately for each tank and associated piping tested at the site. For additional tanks you may photocopy this form prior to completing.

3. TANK AND TESTING INFORMATION

1. Tank ID Number (as registered with Ecology): 2713W-22 2. Date installed: 01/01/1981
 3. Tank capacity in gallons: 4000 4. Date of tightness test: 6/21/93
 5. Last substance stored: UL Gasoline 6. Is tank compartmentalized? No
 7. Tank is: single wall double wall

8. Reason for conducting tightness test:
 To comply with leak detection requirements in UST rules
 To bring temporarily closed tank back into service
 Tank or piping repair
 Other (describe) _____

9. Type of test conducted:
 Tank tightness test only
 Line tightness test only
 Tank and lines tested separately
 Total system test (tank and lines tested together)
 10. Test method type:
 Overfill
 Underfill volumetric
 Nonvolumetric

11. Tightness testing method(s) used (indicate if more than one method was used - see note following item 12):
 Test method name/version HORNER EZY-CHEK
 Test method manufacturer HORNER CREATIVE PRODUCTS

12. If a tank tightness test was conducted, indicate the percentage of tank volume that was filled with product during the test: 100%

Note: A tank must be tested up to the product level limited by the overfill prevention device. If an overfill prevention device is not installed, a tank must be tested up to the 95% full level. When underfill volumetric testing methods are used, the tank must be: 1) filled with product to the 95% full level or 2) the portion of the tank above the product level must be tested using a nonvolumetric method which meets performance standards, for tightness testing.

13. Indicate the method used to determine if groundwater was present above the bottom of the tank during the test (for single wall tanks): PER CUSTOMER INFO

4. CHECKLIST

The following items shall be initialed by the licensed supervisor whose signature appears below.

	Yes	No	NA*
1. Has the tightness testing method used been demonstrated to meet the performance standard specified in the UST rules for the conditions under which the test was conducted? (e.g., detecting a 0.10 gallon per hour leak rate with probability of detection of at least 95% and a probability of false alarm of no more than 5%) Note: A copy of Ecology's policy for demonstrating that leak detection methods meet performance standards may be obtained by contacting Ecology's UST section in Olympia			



UNDERGROUND STORAGE TANK Tightness Testing Checklist

T 1000-24

The purpose of this form is to certify the proper tightness testing of underground storage tank (UST) systems including connecting underground piping. Tightness testing shall be conducted in accordance with Chapter 173.360 WAC.

This Tightness Testing Checklist shall be completed and signed by a Licensed Tightness Testing Supervisor. The supervisor shall be on site when all tank tightness testing activities are being conducted. The firm which employs the licensed supervisor shall also be licensed by the Washington State Department of Ecology as a Service Provider.

Underground storage tank rules require owners/operators to employ a licensed tank services provider to repair, replace, upgrade, or close the UST system and to begin corrective action in accordance with WAC 173-360-399 if the test results indicate that a leak exists.

For further information about completing this form, please contact the Department of Ecology UST Program.

A separate checklist must be completed for each UST system (tank and associated piping) tightness tested, except that separate UST systems tightness tested at one site may be reported together by completing page 2 of this form separately for each system. The completed checklist should be mailed to the following address within 30 days of completion of tightness testing:

Underground Storage Tank Section
Department of Ecology
Mail Stop PV-11
Olympia, WA 98504-8711

1. UST SYSTEM OWNER AND LOCATION

UST Owner/Operator: U.S. DEPARTMENT OF ENERGY-RICHLAND OPERATIONS

Owners Address: 825 JADWIN 550
Street P.O. Box
RICHLAND WA 99352
City State ZIP-Code

Telephone: (509) 376-7387

Site ID Number (on Invoice or available from Ecology if tank is registered): 012763

Site/Business Name: U.S. DEPARTMENT OF ENERGY-RICHLAND OPERATIONS

Site Address: 825 JADWIN P.O. BOX 550 BENTON
Street County
RICHLAND WA 99352
City State ZIP-Code

2. TIGHTNESS TESTING PERFORMED BY:

Firm: EARTH SCIENCE TECHNOLOGY License Number: S000255

Address: 8196 SW HALL BLVD. SUITE 210
Street P.O. Box
BEAVERTON OREGON 97005
City State ZIP-Code

Telephone: (503) 643-5374

Licensed Supervisor: FRANK NICHOLS Tightness Testing License Number: 13512

Additional tanks you may photocopy this form prior to completing.

3. TANK AND TESTING INFORMATION

1. Tank ID Number (as registered with Ecology): 2713W-24 2. Date installed: 01/01/81
 3. Tank capacity in gallons: 4000 4. Date of tightness test: 6/21/93
 5. Last substance stored: Diesel 6. Is tank compartmentalized? No

7. Tank is: single wall double wall

8. Reason for conducting tightness test:
 To comply with leak detection requirements in UST rules
 To bring temporarily closed tank back into service
 Tank or piping repair
 Other (describe) _____

9. Type of test conducted: Tank tightness test only
 Line tightness test only
 Tank and lines tested separately
 Total system test (tank and lines tested together)
 10. Test method type: Overfill
 Underfill volumetric
 Nonvolumetric

11. Tightness testing method(s) used (indicate if more than one method was used - see note following Item 12):
 Test method name/version HORNER EZY-CHEK
 Test method manufacturer HORNER CREATIVE PRODUCTS

12. If a tank tightness test was conducted, indicate the percentage of tank volume that was filled with product during the test: 100%

Note: A tank must be tested up to the product level limited by the overfill prevention device. If an overfill prevention device is not installed, a tank must be tested up to the 95% full level. When underfill volumetric testing methods are used, the tank must be: 1) filled with product to the 95% full level or 2) the portion of the tank above the product level must be tested using a nonvolumetric method which meets performance standards, for tightness testing.

13. Indicate the method used to determine if groundwater was present above the bottom of the tank during the test (for single wall tanks): PER CUSTOMER INFO

4. CHECKLIST

The following items shall be initialed by the licensed supervisor whose signature appears below.

	Yes	No	NA*
1. Has the tightness testing method used been demonstrated to meet the performance standard specified in the UST rules for the conditions under which the test was conducted? (e.g., detecting a 0.10 gallon per hour leak rate with probability of detection of at least 95% and a probability of false alarm of no more than 5%) Note: A copy of Ecology's policy for demonstrating that leak detection methods meet performance standards may be obtained by contacting Ecology's UST section in Olympia	<i>th</i>		



UNDERGROUND STORAGE TANK Tightness Testing Checklist

T 2713W-23

The purpose of this form is to certify the proper tightness testing of underground storage tank (UST) systems including connecting underground piping. Tightness testing shall be conducted in accordance with Chapter 173.360 WAC.

This Tightness Testing Checklist shall be completed and signed by a Licensed Tightness Testing Supervisor. The supervisor shall be on site when all tank tightness testing activities are being conducted. The firm which employs the licensed supervisor shall also be licensed by the Washington State Department of Ecology as a Service Provider.

Underground storage tank rules require owners/operators to employ a licensed tank services provider to repair, replace, upgrade, or close the UST system and to begin corrective action in accordance with WAC 173-360-399 if the test results indicate that a leak exists.

For further information about completing this form, please contact the Department of Ecology UST Program.

A separate checklist must be completed for each UST system (tank and associated piping) tightness tested, except that separate UST systems tightness tested at one site may be reported together by completing page 2 of this form separately for each system. The completed checklist should be mailed to the following address within 30 days of completion of tightness testing:

Underground Storage Tank Section
Department of Ecology
Mail Stop PV-11
Olympia, WA 98504-8711

1. UST SYSTEM OWNER AND LOCATION

UST Owner/Operator: U.S. DEPARTMENT OF ENERGY-RICHLAND OPERATIONS

Owners Address: 825 JADWIN 550
Street P.O. Box

RICHLAND WA 99352
City State ZIP-Code

Telephone: (509) 376-7387

Site ID Number (on invoice or available from Ecology if tank is registered): 012763

Site/Business Name: U.S. DEPARTMENT OF ENERGY-RICHLAND OPERATIONS

Site Address: 825 JADWIN P.O. BOX 550 BENTON
Street County

RICHLAND WA 99352
City State ZIP-Code

2. TIGHTNESS TESTING PERFORMED BY:

Firm: EARTH SCIENCE TECHNOLOGY License Number: S000255

Address: 8196 SW HALL BLVD. SUITE 210
Street P.O. Box

BEAVERTON OREGON 97005
City State ZIP-Code

Telephone: (503) 643-5374

Licensed Supervisor: FRANK NICHOLS Tightness Testing License Number: 13512

Sections 3, 4 and 5 must be completed separately for each tank and associated piping tested at the site. For additional tanks you may photocopy this form prior to completing.

3. TANK AND TESTING INFORMATION

1. Tank ID Number (as registered with Ecology): 2713W-23 2. Date installed: 01/01/76
3. Tank capacity in gallons: 2000 4. Date of tightness test: 6/21/93
5. Last substance stored: UL Gasoline 6. Is tank compartmentalized? No

7. Tank is: single wall double wall

8. Reason for conducting tightness test:
 To comply with leak detection requirements in UST rules
 To bring temporarily closed tank back into service
 Tank or piping repair
 Other (describe) _____

9. Type of test conducted: Tank tightness test only
 Line tightness test only
 Tank and lines tested separately
 Total system test (tank and lines tested together)

10. Test method type: Overfill
 Underfill volumetric
 Nonvolumetric

11. Tightness testing method(s) used (indicate if more than one method was used - see note following Item 12):
Test method name/version HORNER EZY-CHEK
Test method manufacturer HORNER CREATIVE PRODUCTS

12. If a tank tightness test was conducted, indicate the percentage of tank volume that was filled with product during the test: 100%

Note: A tank must be tested up to the product level limited by the overfill prevention device. If an overfill prevention device is not installed, a tank must be tested up to the 95% full level. When underfill volumetric testing methods are used, the tank must be: 1) filled with product to the 95% full level or 2) the portion of the tank above the product level must be tested using a nonvolumetric method which meets performance standards, for tightness testing.

13. Indicate the method used to determine if groundwater was present above the bottom of the tank during the test (for single wall tanks): PER CUSTOMER INFO

4. CHECKLIST

The following items shall be initialed by the licensed supervisor whose signature appears below.

	Yes	No	NA*
1. Has the tightness testing method used been demonstrated to meet the performance standard specified in the UST rules for the conditions under which the test was conducted? (e.g., detecting a 0.10 gallon per hour leak rate with probability of detection of at least 95% and a probability of false alarm of no more than 5%) <i>Note: A copy of Ecology's policy for demonstrating that leak detection methods meet performance standards may be obtained by contacting Ecology's UST section in Olympia.</i>			



UNDERGROUND STORAGE TANK Tightness Testing Checklist

T 100-B1

The purpose of this form is to certify the proper tightness testing of underground storage tank (UST) systems including connecting underground piping. Tightness testing shall be conducted in accordance with Chapter 173.360 WAC.

This Tightness Testing Checklist shall be completed and signed by a Licensed Tightness Testing Supervisor. The supervisor shall be on site when all tank tightness testing activities are being conducted. The firm which employs the licensed supervisor shall also be licensed by the Washington State Department of Ecology as a Service Provider.

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For further information about completing this form, please contact the Department of Ecology UST Program.

A separate checklist must be completed for each UST system (tank and associated piping) tightness tested, except that separate UST systems tightness tested at one site may be reported together by completing page 2 of this form separately for each system. The completed checklist should be mailed to the following address within 30 days of completion of tightness testing:

Underground Storage Tank Section
Department of Ecology
Mail Stop PV-11
Olympia, WA 98504-8711

1. UST SYSTEM OWNER AND LOCATION

UST Owner/Operator: U.S. DEPARTMENT OF ENERGY-RICHLAND OPERATIONS

Owners Address: 825 JADWIN 550
Street P.O. Box
RICHLAND WA 99352
City State ZIP-Code

Telephone: (509) 376-7387

Site ID Number (on invoice or available from Ecology if tank is registered): 012763

Site/Business Name: U.S. DEPARTMENT OF ENERGY-RICHLAND OPERATIONS

Site Address: 825 JADWIN P.O. BOX 550 BENTON
Street County
RICHLAND WA 99352
City State ZIP-Code

2. TIGHTNESS TESTING PERFORMED BY:

Firm: EARTH SCIENCE TECHNOLOGY License Number: S000255

Address: 8196 SW HALL BLVD. SUITE 210
Street P.O. Box
BEAVERTON OREGON 97005
City State ZIP-Code

Telephone: (503) 643-5374

Licensed Supervisor: FRANK NICHOLS Tightness Testing License Number: 13512

Sections 3, 4 and 5 must be completed separately for each tank and associated piping tested at the site. For additional tanks you may photocopy this form prior to completing.

3. TANK AND TESTING INFORMATION

1. Tank ID Number (as registered with Ecology): 100-81 2. Date installed: _____
 3. Tank capacity in gallons: 10,000 4. Date of tightness test: 6/22/93
 5. Last substance stored: Diesel 6. Is tank compartmentalized? No
 7. Tank is: single wall _____ double wall

8. Reason for conducting tightness test:
 To comply with leak detection requirements in UST rules
 _____ To bring temporarily closed tank back into service
 _____ Tank or piping repair
 _____ Other (describe) _____

9. Type of test conducted: 10. Test method type:
 _____ Tank tightness test only Overfill
 _____ Line tightness test only _____ Underfill volumetric
 _____ Tank and lines tested separately _____ Nonvolumetric
 Total system test (tank and lines tested together)

11. Tightness testing method(s) used (indicate if more than one method was used - see note following item 12):
 Test method name/version HORNER EZY-CHEK
 Test method manufacturer HORNER CREATIVE PRODUCTS

12. If a tank tightness test was conducted, indicate the percentage of tank volume that was filled with product during the test: 100%

Note: A tank must be tested up to the product level limited by the overfill prevention device. If an overfill prevention device is not installed, a tank must be tested up to the 95% full level. When underfill volumetric testing methods are used, the tank must be: 1) filled with product to the 95% full level or 2) the portion of the tank above the product level must be tested using a nonvolumetric method which meets performance standards, for tightness testing.

13. Indicate the method used to determine if groundwater was present above the bottom of the tank during the test (for single wall tanks): PER CUSTOMER INFO

4. CHECKLIST

The following items shall be initialed by the licensed supervisor whose signature appears below.

	Yes	No	NA*
1. Has the tightness testing method used been demonstrated to meet the performance standard specified in the UST rules for the conditions under which the test was conducted? (e.g., detecting a 0.10 gallon per hour leak rate with probability of detection of at least 95% and a probability of false alarm of no more than 5%) <i>Note: A copy of Ecology's policy for demonstrating that leak detection methods meet performance standards may be obtained by contacting Ecology's UST section in Olympia.</i>	<i>Ln</i>		



UNDERGROUND STORAGE TANK Tightness Testing Checklist

T 27115-20

The purpose of this form is to certify the proper tightness testing of underground storage tank (UST) systems including connecting underground piping. Tightness testing shall be conducted in accordance with Chapter 173.360 WAC.

This Tightness Testing Checklist shall be completed and signed by a Licensed Tightness Testing Supervisor. The supervisor shall be on site when all tank tightness testing activities are being conducted. The firm which employs the licensed supervisor shall also be licensed by the Washington State Department of Ecology as a Service Provider.

Underground storage tank rules require owners/operators to employ a licensed tank services provider to repair, replace, upgrade, or close the UST system and to begin corrective action in accordance with WAC 173-360-399 if the test results indicate that a leak exists.

For further information about completing this form, please contact the Department of Ecology UST Program.

A separate checklist must be completed for each UST system (tank and associated piping) tightness tested, except that separate UST systems tightness tested at one site may be reported together by completing page 2 of this form separately for each system. The completed checklist should be mailed to the following address within 30 days of completion of tightness testing:

Underground Storage Tank Section
Department of Ecology
Mail Stop PV-11
Olympia, WA 98504-8711

1. UST SYSTEM OWNER AND LOCATION

UST Owner/Operator: U.S. DEPARTMENT OF ENERGY-RICHLAND OPERATIONS

Owners Address: 825 JADWIN 550
Street P.O. Box

RICHLAND WA 99352
City State ZIP-Code

Telephone: (509) 376-7387

Site ID Number (on invoice or available from Ecology if tank is registered): 012763

Site/Business Name: U.S. DEPARTMENT OF ENERGY-RICHLAND OPERATIONS

Site Address: 825 JADWIN P.O. BOX 550 BENTON
Street County

RICHLAND WA 99352
City State ZIP-Code

2. TIGHTNESS TESTING PERFORMED BY:

Firm: EARTH SCIENCE TECHNOLOGY License Number: S000255

Address: 8196 SW HALL BLVD. SUITE 210
Street P.O. Box

BEAVERTON OREGON 97005
City State ZIP-Code

Telephone: (503) 643-5374

Licensed Supervisor: FRANK NICHOLS Tightness Testing License Number: 13512

Sections 3, 4 and 5 must be completed separately for each tank and associated piping tested at the site. For additional tanks you may photocopy this form prior to completing.

3. TANK AND TESTING INFORMATION

1. Tank ID Number (as registered with Ecology): 2713E-20 2. Date installed: _____
 3. Tank capacity in gallons: 2000 4. Date of tightness test: 6/23/93
 5. Last substance stored: Diesel 6. Is tank compartmentalized? No
 7. Tank is: single wall double wall

8. Reason for conducting tightness test:
 To comply with leak detection requirements in UST rules
 To bring temporarily closed tank back into service
 Tank or piping repair
 Other (describe) _____

9. Type of test conducted:
 Tank tightness test only
 Line tightness test only
 Tank and lines tested separately
 Total system test (tank and lines tested together)

10. Test method type:
 Overfill
 Underfill volumetric
 Nonvolumetric

11. Tightness testing method(s) used (indicate if more than one method was used - see note following item 12):
 Test method name/version HORNER EZY-CHEK
 Test method manufacturer HORNER CREATIVE PRODUCTS

12. If a tank tightness test was conducted, indicate the percentage of tank volume that was filled with product during the test: 100%

Note: A tank must be tested up to the product level limited by the overfill prevention device. If an overfill prevention device is not installed, a tank must be tested up to the 95% full level. When underfill volumetric testing methods are used, the tank must be: 1) filled with product to the 95% full level or 2) the portion of the tank above the product level must be tested using a nonvolumetric method which meets performance standards, for tightness testing.

13. Indicate the method used to determine if groundwater was present above the bottom of the tank during the test (for single wall tanks): PER CUSTOMER INFO

4. CHECKLIST

The following items shall be initialed by the licensed supervisor whose signature appears below.

	Yes	No	NA*
1. Has the tightness testing method used been demonstrated to meet the performance standard specified in the UST rules for the conditions under which the test was conducted? (e.g., detecting a 0.10 gallon per hour leak rate with probability of detection of at least 95% and a probability of false alarm of no more than 5%) Note: A copy of Ecology's policy for demonstrating that leak detection methods meet performance standards may be obtained by contacting Ecology's UST section in Olympia			



UNDERGROUND STORAGE TANK Tightness Testing Checklist

TK101

The purpose of this form is to certify the proper tightness testing of underground storage tank (UST) systems including connecting underground piping. Tightness testing shall be conducted in accordance with Chapter 173.360 WAC.

This Tightness Testing Checklist shall be completed and signed by a Licensed Tightness Testing Supervisor. The supervisor shall be on site when all tank tightness testing activities are being conducted. The firm which employs the licensed supervisor shall also be licensed by the Washington State Department of Ecology as a Service Provider.

Underground storage tank rules require owners/operators to employ a licensed tank services provider to repair, replace, upgrade, or close the UST system and to begin corrective action in accordance with WAC 173-360-399 if the test results indicate that a leak exists.

For further information about completing this form, please contact the Department of Ecology UST Program.

A separate checklist must be completed for each UST system (tank and associated piping) tightness tested, except that separate UST systems tightness tested at one site may be reported together by completing page 2 of this form separately for each system. The completed checklist should be mailed to the following address within 30 days of completion of tightness testing:

Underground Storage Tank Section
Department of Ecology
Mail Stop PV-11
Olympia, WA 98504-8711

1. UST SYSTEM OWNER AND LOCATION

UST Owner/Operator: U.S. DEPARTMENT OF ENERGY-RICHLAND OPERATIONS

Owners Address: 825 JADWIN 550
Street P.O. Box
RICHLAND WA 99352
City State ZIP-Code

Telephone: (509) 376-7387

Site ID Number (on invoice or available from Ecology if tank is registered): 012763

Site/Business Name: U.S. DEPARTMENT OF ENERGY-RICHLAND OPERATIONS

Site Address: 825 JADWIN P.O. BOX 550 BENTON
Street County
RICHLAND WA 99352
City State ZIP-Code

2. TIGHTNESS TESTING PERFORMED BY:

Firm: EARTH SCIENCE TECHNOLOGY License Number: S000255

Address: 8196 SW HALL BLVD. SUITE 210
Street P.O. Box
BEAVERTON OREGON 97005
City State ZIP-Code

Telephone: (503) 643-5374

Licensed Supervisor: FRANK NICHOLS Tightness Testing License Number: 13512

Sections 3, 4 and 5 must be completed separately for each tank and associated piping tested at the site. For additional tanks you may photocopy this form prior to completing.

3. TANK AND TESTING INFORMATION

1. Tank ID Number (as registered with Ecology): TK101 2. Date installed: _____
 3. Tank capacity in gallons: 1000 4. Date of tightness test: 6/23/93
 5. Last substance stored: Diesel 6. Is tank compartmentalized? No

7. Tank is: single wall _____ double wall

8. Reason for conducting tightness test:
 To comply with leak detection requirements in UST rules
 _____ To bring temporarily closed tank back into service
 _____ Tank or piping repair
 _____ Other (describe) _____

9. Type of test conducted: 10. Test method type:
 _____ Tank tightness test only Overfill
 _____ Line tightness test only _____ Underfill volumetric
 _____ Tank and lines tested separately _____ Nonvolumetric
 Total system test (tank and lines tested together)

11. Tightness testing method(s) used (Indicate if more than one method was used - see note following item 12):
 Test method name/version HORNER EZY-CHEK
 Test method manufacturer HORNER CREATIVE PRODUCTS

12. If a tank tightness test was conducted, indicate the percentage of tank volume that was filled with product during the test: 100%

Note: A tank must be tested up to the product level limited by the overfill prevention device. If an overfill prevention device is not installed, a tank must be tested up to the 95% full level. When underfill volumetric testing methods are used, the tank must be: 1) filled with product to the 95% full level or 2) the portion of the tank above the product level must be tested using a nonvolumetric method which meets performance standards, for tightness testing.

13. Indicate the method used to determine if groundwater was present above the bottom of the tank during the test (for single wall tanks): PER CUSTOMER INFO

4. CHECKLIST

The following items shall be initialed by the licensed supervisor whose signature appears below.

	Yes	No	NA*
1. Has the tightness testing method used been demonstrated to meet the performance standard specified in the UST rules for the conditions under which the test was conducted? (e.g., detecting a 0.10 gallon per hour leak rate with probability of detection of at least 95% and a probability of false alarm of no more than 5%) <i>Note: A copy of Ecology's policy for demonstrating that leak detection methods meet performance standards may be obtained by contacting Ecology's UST section in Olympia</i>	<i>th</i>		



UNDERGROUND STORAGE TANK Tightness Testing Checklist

T 2715 E-19

The purpose of this form is to certify the proper tightness testing of underground storage tank (UST) systems including connecting underground piping. Tightness testing shall be conducted in accordance with Chapter 173.360 WAC.

This Tightness Testing Checklist shall be completed and signed by a Licensed Tightness Testing Supervisor. The supervisor shall be on site when all tank tightness testing activities are being conducted. The firm which employs the licensed supervisor shall also be licensed by the Washington State Department of Ecology as a Service Provider.

Underground storage tank rules require owners/operators to employ a licensed tank services provider to repair, replace, upgrade, or close the UST system and to begin corrective action in accordance with WAC 173-360-399 if the test results indicate that a leak exists.

For further information about completing this form, please contact the Department of Ecology UST Program.

A separate checklist must be completed for each UST system (tank and associated piping) tightness tested, except that separate UST systems tightness tested at one site may be reported together by completing page 2 of this form separately for each system. The completed checklist should be mailed to the following address within 30 days of completion of tightness testing:

Underground Storage Tank Section
Department of Ecology
Mail Stop PV-11
Olympia, WA 98504-8711

1. UST SYSTEM OWNER AND LOCATION

UST Owner/Operator: U.S. DEPARTMENT OF ENERGY-RICHLAND OPERATIONS

Owners Address: 825 JADWIN 550
Street P.O. Box
RICHLAND WA 99352
City State ZIP-Code

Telephone: (509) 376-7387

Site ID Number (on invoice or available from Ecology if tank is registered): 012763

Site/Business Name: U.S. DEPARTMENT OF ENERGY-RICHLAND OPERATIONS

Site Address: 825 JADWIN P.O. BOX 550 BENTON
Street P.O. Box County
RICHLAND WA 99352
City State ZIP-Code

2. TIGHTNESS TESTING PERFORMED BY:

Firm: EARTH SCIENCE TECHNOLOGY License Number: S000255

Address: 8196 SW HALL BLVD. SUITE 210
Street P.O. Box
BEAVERTON OREGON 97005
City State ZIP-Code

Telephone: (503) 643-5374

Licensed Supervisor: FRANK NICHOLS Tightness Testing License Number: 13512

Sections 3, 4 and 5 must be completed separately for each tank and associated piping tested at the site. For additional tanks you may photocopy this form prior to completing.

TANK AND TESTING INFORMATION

1. Tank ID Number (as registered with Ecology): 2713E-19 2. Date installed: _____

3. Tank capacity in gallons: 4000 4. Date of tightness test: 6/23/93

5. Last substance stored: UL Gasoline 6. Is tank compartmentalized? No

7. Tank is: single wall double wall

8. Reason for conducting tightness test:
 To comply with leak detection requirements in UST rules
 To bring temporarily closed tank back into service
 Tank or piping repair
 Other (describe) _____

9. Type of test conducted: _____ Tank tightness test only
_____ Line tightness test only
_____ Tank and lines tested separately
 Total system test (tank and lines tested together)
10. Test method type:
 Overfill
_____ Underfill volumetric
_____ Nonvolumetric

11. Tightness testing method(s) used (indicate if more than one method was used - see note following item 12):
Test method name/version HORNER EZY-CHEK
Test method manufacturer HORNER CREATIVE PRODUCTS

12. If a tank tightness test was conducted, indicate the percentage of tank volume that was filled with product during the test: 100%

Note: A tank must be tested up to the product level limited by the overfill prevention device. If an overfill prevention device is not installed, a tank must be tested up to the 95% full level. When underfill volumetric testing methods are used, the tank must be: 1) filled with product to the 95% full level or 2) the portion of the tank above the product level must be tested using a nonvolumetric method which meets performance standards, for tightness testing.

13. Indicate the method used to determine if groundwater was present above the bottom of the tank during the test (for single wall tanks): PER CUSTOMER INFO

CHECKLIST

The following items shall be initialed by the licensed supervisor whose signature appears below.

	Yes	No	NA*
Has the tightness testing method used been demonstrated to meet the performance standard specified in the UST rules for the conditions under which the test was conducted? (e.g., detecting a 0.10 gallon per hour leak rate with probability of detection of at least 95% and a probability of false alarm of no more than 5%)			
<i>Note: A copy of Ecology's policy for demonstrating that leak detection methods meet performance standards may be obtained by contacting Ecology's UST section in Olympia.</i>			

Ln

<p>2. Have all written testing procedures developed by the manufacturer of the testing equipment and method been followed while the test was being set up and conducted?</p>	<p>Yes</p>	<p>No</p>	<p>NA*</p>
<p>3. Was the product level in the tank during the test within the limitations stated in the evaluation results used to demonstrate that the tightness test method meets performance standards?</p>	<p>Yes</p>	<p>No</p>	<p>NA*</p>
<p>4. Was the waiting period between the addition of product to the tank and the beginning of the test at or above the minimum waiting period stated in the evaluation results?</p>	<p>Yes</p>	<p>No</p>	<p>NA*</p>
<p>5. If groundwater was present above the bottom of the tank, have the testing procedures accounted for its presence? (for single wall tanks)</p>	<p>Yes</p>	<p>No</p>	<p>NA*</p>
<p>6. Have any loose fittings at the top of the tank been either tightened prior to beginning the test or accounted for when conducting the test and evaluating test results? (Applies to overfill methods only) <i>Exception: Interstitial space fitting on double wall tank should remain loose during test for interstitial space to vent to atmosphere.</i></p>	<p>Yes</p>	<p>No</p>	<p>NA*</p>
<p>7. Have all vapor pockets either been removed prior to beginning the test or otherwise accounted for when conducting the test and evaluating test results?</p>	<p>Yes</p>	<p>No</p>	<p>NA*</p>
<p>8. Based on evaluating test results and conducting any retesting as necessary to obtain conclusive test results, the tightness test is: <input checked="" type="checkbox"/> Passed <input type="checkbox"/> Failed Note: Inconclusive test results will not be considered as a valid tightness test for purposes of complying with UST release detection regulations.</p>	<p>Yes</p>	<p>No</p>	<p>NA*</p>
<p>9. If the tightness test is considered a failed test, has the owner/operator been notified of the test results? Note: The tank owner or operator must report a failed tightness test as a suspected release to UST staff at the appropriate Ecology regional office within 24 hours of being notified by the testing firm that a failed tightness test has occurred.</p>	<p>Yes</p>	<p>No</p>	<p>NA*</p>
<p>10. If a failed test has occurred, results indicate that there is a leak in the _____ Tank _____ Piping System If known, the leak rate is: _____ gallons per hour</p>	<p>Yes</p>	<p>No</p>	<p>NA*</p>

*Item not applicable

I hereby certify that I have been the licensed supervisor present during the above listed tightness testing activities and to the best of my knowledge they have been conducted in compliance with all applicable state and federal laws, regulations and procedures pertaining to underground storage tanks.

Persons submitting false information are subject to penalties under Chapter 173-360 WAC.

6/23/93

Date

Frank [Signature]

Signature of Licensed Supervisor

5. ADDITIONAL REQUIRED SIGNATURES

6/23/93

Date

J. Joseph Moriarty

Signature of Licensed Service Provider firm (owner or person with signature authority)

Date

Signature of Tank Owner or Authorized Representative



UNDERGROUND STORAGE TANK Tightness Testing Checklist

T 204 AR

The purpose of this form is to certify the proper tightness testing of underground storage tank (UST) systems including connecting underground piping. Tightness testing shall be conducted in accordance with Chapter 173.360 WAC.

This Tightness Testing Checklist shall be completed and signed by a Licensed Tightness Testing Supervisor. The supervisor shall be on site when all tank tightness testing activities are being conducted. The firm which employs the licensed supervisor shall also be licensed by the Washington State Department of Ecology as a Service Provider.

Underground storage tank rules require owners/operators to employ a licensed tank services provider to repair, replace, upgrade, or close the UST system and to begin corrective action in accordance with WAC 173-360-399 if the test results indicate that a leak exists.

For further information about completing this form, please contact the Department of Ecology UST Program.

A separate checklist must be completed for each UST system (tank and associated piping) tightness tested, except that separate UST systems tightness tested at one site may be reported together by completing page 2 of this form separately for each system. The completed checklist should be mailed to the following address within 30 days of completion of tightness testing:

Underground Storage Tank Section
Department of Ecology
Mail Stop PV-11
Olympia, WA 98504-8711

1. UST SYSTEM OWNER AND LOCATION

UST Owner/Operator: U.S. DEPARTMENT OF ENERGY-RICHLAND OPERATIONS

Owners Address: 825 JADWIN 550
Street P.O. Box
RICHLAND WA 99352
City State ZIP-Code

Telephone: (509) 376-7387

Site ID Number (on invoice or available from Ecology if tank is registered): 012763

Site/Business Name: U.S. DEPARTMENT OF ENERGY-RICHLAND OPERATIONS

Site Address: 825 JADWIN P.O. BOX 550 BENTON
Street County
RICHLAND WA 99352
City State ZIP-Code

2. TIGHTNESS TESTING PERFORMED BY:

Firm: EARTH SCIENCE TECHNOLOGY License Number: S000255

Address: 8196 SW HALL BLVD. SUITE 210
Street P.O. Box
BEAVERTON OREGON 97005
City State ZIP-Code

Telephone: (503) 643-5374

Licensed Supervisor: FRANK NICHOLS Tightness Testing License Number: 13512

Sections 3, 4, and 5 must be completed separately for each tank and associated piping tested at the site. For additional tanks you may photocopy this form prior to completing.

3. TANK AND TESTING INFORMATION

1. Tank ID Number (as registered with Ecology): 244AR 2. Date installed: _____

3. Tank capacity in gallons: 550 4. Date of tightness test: 6/24/93

5. Last substance stored: Diesel 6. Is tank compartmentalized? No

7. Tank is: single wall double wall

8. Reason for conducting tightness test:
 To comply with leak detection requirements in UST rules
 To bring temporarily closed tank back into service
 Tank or piping repair
 Other (describe) _____

9. Type of test conducted: Tank tightness test only
 Line tightness test only
 Tank and lines tested separately
 Total system test (tank and lines tested together)
10. Test method type: Overfill
 Underfill volumetric
 Nonvolumetric

11. Tightness testing method(s) used (indicate if more than one method was used - see note following item 12):
Test method name/version: HORNER EZY-CHEK
Test method manufacturer: HORNER CREATIVE PRODUCTS

12. If a tank tightness test was conducted, indicate the percentage of tank volume that was filled with product during the test: 100%

Note: A tank must be tested up to the product level limited by the overfill prevention device. If an overfill prevention device is not installed, a tank must be tested up to the 95% full level. When underfill volumetric testing methods are used, the tank must be: 1) filled with product to the 95% full level or 2) the portion of the tank above the product level must be tested using a nonvolumetric method which meets performance standards, for tightness testing.

13. Indicate the method used to determine if groundwater was present above the bottom of the tank during the test (for single wall tanks): PER CUSTOMER INFO

4. CHECKLIST

The following items shall be initialed by the licensed supervisor whose signature appears below.

	Yes	No	NA*
1. Has the tightness testing method used been demonstrated to meet the performance standard specified in the UST rules for the conditions under which the test was conducted? (e.g., detecting a 0.10 gallon per hour leak rate with probability of detection of at least 95% and a probability of false alarm of no more than 5%) <i>Note: A copy of Ecology's policy for demonstrating that leak detection methods meet performance standards may be obtained by contacting Ecology's UST section in Olympia</i>			



UNDERGROUND STORAGE TANK Tightness Testing Checklist

T 1171-5

The purpose of this form is to certify the proper tightness testing of underground storage tank (UST) systems including connecting underground piping. Tightness testing shall be conducted in accordance with Chapter 173.360 WAC.

This Tightness Testing Checklist shall be completed and signed by a Licensed Tightness Testing Supervisor. The supervisor shall be on site when all tank tightness testing activities are being conducted. The firm which employs the licensed supervisor shall also be licensed by the Washington State Department of Ecology as a Service Provider.

Underground storage tank rules require owners/operators to employ a licensed tank services provider to repair, replace, upgrade, or close the UST system and to begin corrective action in accordance with WAC 173.360-399 if the test results indicate that a leak exists.

For further information about completing this form, please contact the Department of Ecology UST Program.

A separate checklist must be completed for each UST system (tank and associated piping) tightness tested, except that separate UST systems tightness tested at one site may be reported together by completing page 2 of this form separately for each system. The completed checklist should be mailed to the following address within 30 days of completion of tightness testing:

Underground Storage Tank Section
Department of Ecology
Mail Stop PV-11
Olympia, WA 98504-8711

1. UST SYSTEM OWNER AND LOCATION

UST Owner/Operator: U.S. DEPARTMENT OF ENERGY-RICHLAND OPERATIONS

Owners Address: 825 JADWIN 550
Street P.O. Box
RICHLAND WA 99352
City State ZIP-Code

Telephone: (509) 376-7387

Site ID Number (on invoice or available from Ecology if tank is registered): 012763

Site/Business Name: U.S. DEPARTMENT OF ENERGY-RICHLAND OPERATIONS

Site Address: 825 JADWIN P.O. BOX 550 BENTON
Street County
RICHLAND WA 99352
City State ZIP-Code

2. TIGHTNESS TESTING PERFORMED BY:

Firm: EARTH SCIENCE TECHNOLOGY License Number: S000255

Address: 8196 SW HALL BLVD. SUITE 210
Street P.O. Box
BEAVERTON OREGON 97005
City State ZIP-Code

Telephone: (503) 643-5374

Licensed Supervisor: FRANK NICHOLS Tightness Testing License Number: 13512

Additional tanks you may photocopy this form prior to completing.

3. TANK AND TESTING INFORMATION

1. Tank ID Number (as registered with Ecology): 1171-5 2. Date installed: _____

3. Tank capacity in gallons: 2000 4. Date of tightness test: 6/26/93

5. Last substance stored: Waste Oil 6. Is tank compartmentalized? No

7. Tank is: single wall double wall

8. Reason for conducting tightness test:
 To comply with leak detection requirements in UST rules
 To bring temporarily closed tank back into service
 Tank or piping repair
 Other (describe) _____

9. Type of test conducted: _____ Tank tightness test only
_____ Line tightness test only
_____ Tank and lines tested separately
 Total system test (tank and lines tested together)
10. Test method type:
 Overfill
_____ Underfill volumetric
_____ Nonvolumetric

11. Tightness testing method(s) used (indicate if more than one method was used - see note following item 12):
Test method name/version HORNER EZY-CHEK
Test method manufacturer HORNER CREATIVE PRODUCTS

12. If a tank tightness test was conducted, indicate the percentage of tank volume that was filled with product during the test: 100%

Note: A tank must be tested up to the product level limited by the overfill prevention device. If an overfill prevention device is not installed, a tank must be tested up to the 95% fill level. When underfill volumetric testing methods are used, the tank must be: 1) filled with product to the 95% full level or 2) the portion of the tank above the product level must be tested using a nonvolumetric method which meets performance standards, for tightness testing.

13. Indicate the method used to determine if groundwater was present above the bottom of the tank during the test (for single wall tanks): PER CUSTOMER INFO

4. CHECKLIST

The following items shall be initiated by the licensed supervisor whose signature appears below.

	Yes	No	NA*
Has the tightness testing method used been demonstrated to meet the performance standard specified in the UST rules for the conditions under which the test was conducted? (e.g., detecting a 0.10 gallon per hour leak rate with probability of detection of at least 95% and a probability of false alarm of no more than 5%)			
<i>Note: A copy of Ecology's policy for demonstrating that leak detection methods meet performance standards may be obtained by contacting Ecology's UST section in Olympia</i>			



UNDERGROUND STORAGE TANK Tightness Testing Checklist

T 3001 D

The purpose of this form is to certify the proper tightness testing of underground storage tank (UST) systems including connecting underground piping. Tightness testing shall be conducted in accordance with Chapter 173.360 WAC.

This Tightness Testing Checklist shall be completed and signed by a Licensed Tightness Testing Supervisor. The supervisor shall be on site when all tank tightness testing activities are being conducted. The firm which employs the licensed supervisor shall also be licensed by the Washington State Department of Ecology as a Service Provider.

Underground storage tank rules require owners/operators to employ a licensed tank services provider to repair, replace, upgrade, or close the UST system and to begin corrective action in accordance with WAC 173-360-399 if the test results indicate that a leak exists.

For further information about completing this form, please contact the Department of Ecology UST Program.

A separate checklist must be completed for each UST system (tank and associated piping) tightness tested, except that separate UST systems tightness tested at one site may be reported together by completing page 2 of this form separately for each system. The completed checklist should be mailed to the following address within 30 days of completion of tightness testing:

Underground Storage Tank Section
Department of Ecology
Mail Stop PV-11
Olympia, WA 98504-8711

1. UST SYSTEM OWNER AND LOCATION

UST Owner/Operator: U.S. DEPARTMENT OF ENERGY-RICHLAND OPERATIONS

Owners Address: 825 JADWIN 550
Street P.O. Box
RICHLAND WA 99352
City State ZIP-Code

Telephone: (509) 376-7387

Site ID Number (on invoice or available from Ecology if tank is registered): 012763

Site/Business Name: U.S. DEPARTMENT OF ENERGY-RICHLAND OPERATIONS

Site Address: 825 JADWIN P.O. BOX 550 BENTON
Street County
RICHLAND WA 99352
City State ZIP-Code

2. TIGHTNESS TESTING PERFORMED BY:

Firm: EARTH SCIENCE TECHNOLOGY License Number: S000255

Address: 8196 SW HALL BLVD. SUITE 210
Street P.O. Box
BEAVERTON OREGON 97005
City State ZIP-Code

Telephone: (503) 643-5374

Licensed Supervisor: FRANK NICHOLS Tightness Testing License Number: 13512

Sections 3, 4 and 5 must be completed separately for each tank and associated piping tested at the site. For additional tanks you may photocopy this form prior to completing.

3. TANK AND TESTING INFORMATION

1. Tank ID Number (as registered with Ecology): 3621-D 2. Date installed: _____
3. Tank capacity in gallons: 4000 4. Date of tightness test: 6/26/93
5. Last substance stored: Diesel 6. Is tank compartmentalized? No
7. Tank is: single wall _____ double wall

8. Reason for conducting tightness test:
- To comply with leak detection requirements in UST rules
- _____ To bring temporarily closed tank back into service
- _____ Tank or piping repair
- _____ Other (describe) _____

9. Type of test conducted: 10. Test method type:
- _____ Tank tightness test only Overfill
- _____ Line tightness test only _____ Underfill volumetric
- _____ Tank and lines tested separately _____ Nonvolumetric
- Total system test (tank and lines tested together)

11. Tightness testing method(s) used (indicate if more than one method was used - see note following item 12):
- Test method name/version HORNER EZY-CHEK
- Test method manufacturer HORNER CREATIVE PRODUCTS

12. If a tank tightness test was conducted, indicate the percentage of tank volume that was filled with product during the test: 100%

Note: A tank must be tested up to the product level limited by the overfill prevention device. If an overfill prevention device is not installed, a tank must be tested up to the 95% fill level. When underfill volumetric testing methods are used, the tank must be: 1) filled with product to the 95% full level or 2) the portion of the tank above the product level must be tested using a nonvolumetric method which meets performance standards, for tightness testing.

13. Indicate the method used to determine if groundwater was present above the bottom of the tank during the test (for single wall tanks): PER CUSTOMER INFO

4. CHECKLIST

The following items shall be initialed by the licensed supervisor whose signature appears below.

	Yes	No	NA*
1. Has the tightness testing method used been demonstrated to meet the performance standard specified in the UST rules for the conditions under which the test was conducted? (e.g., detecting a 0.10 gallon per hour leak rate with probability of detection of at least 95% and a probability of false alarm of no more than 5%)	<i>fn</i>		
<i>Note: A copy of Ecology's policy for demonstrating that leak detection methods meet performance standards may be obtained by contacting Ecology's UST section in Olympia.</i>			

<p>2. Have all written testing procedures developed by the manufacturer of the testing equipment and method been followed while the test was being set up and conducted?</p>	<p>th</p>		
<p>3. Was the product level in the tank during the test within the limitations stated in the evaluation results used to demonstrate that the tightness test method meets performance standards?</p>	<p>th</p>		
<p>4. Was the waiting period between the addition of product to the tank and the beginning of the test at or above the minimum waiting period stated in the evaluation results?</p>	<p>th</p>		
<p>5. If groundwater was present above the bottom of the tank, have the testing procedures accounted for its presence? (for single wall tanks)</p>			<p>th</p>
<p>6. Have any loose fittings at the top of the tank been either tightened prior to beginning the test or accounted for when conducting the test and evaluating test results? (Applies to overfill methods only) <i>Exception: Interstitial space fitting on double wall tank should remain loose during test for interstitial space to vent to atmosphere.</i></p>	<p>th</p>		
<p>7. Have all vapor pockets either been removed prior to beginning the test or otherwise accounted for when conducting the test and evaluating test results?</p>	<p>th</p>		
<p>8. Based on evaluating test results and conducting any retesting as necessary to obtain conclusive test results, the tightness test is: <input checked="" type="checkbox"/> Passed <input type="checkbox"/> Failed Note: Inconclusive test results will not be considered as a valid tightness test for purposes of complying with UST release detection regulations.</p>			
<p>9. If the tightness test is considered a failed test, has the owner/operator been notified of the test results? Note: The tank owner or operator must report a failed tightness test as a suspected release to UST staff at the appropriate Ecology regional office within 24 hours of being notified by the testing firm that a failed tightness test has occurred.</p>			<p>th</p>
<p>10. If a failed test has occurred, results indicate that there is a leak in the _____ Tank _____ Piping System If known, the leak rate is: _____ gallons per hour</p>			

*Item not applicable

I hereby certify that I have been the licensed supervisor present during the above listed tightness testing activities and to the best of my knowledge they have been conducted in compliance with all applicable state and federal laws, regulations and procedures pertaining to underground storage tanks.

Persons submitting false information are subject to penalties under Chapter 173-360 WAC.

6/26/93 _____
Date Signature of Licensed Supervisor

5. ADDITIONAL REQUIRED SIGNATURES

6/26/93 _____
Date Signature of Licensed Service Provider firm (owner or person with signature authority)

Date Signature of Tank Owner or Authorized Representative



UNDERGROUND STORAGE TANK Tightness Testing Checklist

T 1172-10

The purpose of this form is to certify the proper tightness testing of underground storage tank (UST) systems including connecting underground piping. Tightness testing shall be conducted in accordance with Chapter 173.360 WAC.

This Tightness Testing Checklist shall be completed and signed by a Licensed Tightness Testing Supervisor. The supervisor shall be on site when all tank tightness testing activities are being conducted. The firm which employs the licensed supervisor shall also be licensed by the Washington State Department of Ecology as a Service Provider.

Underground storage tank rules require owners/operators to employ a licensed tank services provider to repair, replace, upgrade, or close the UST system and to begin corrective action in accordance with WAC 173-360-399 if the test results indicate that a leak exists.

For further information about completing this form, please contact the Department of Ecology UST Program.

A separate checklist must be completed for each UST system (tank and associated piping) tightness tested, except that separate UST systems tightness tested at one site may be reported together by completing page 2 of this form separately for each system. The completed checklist should be mailed to the following address within 30 days of completion of tightness testing:

Underground Storage Tank Section
Department of Ecology
Mail Stop PV-11
Olympia, WA 98504-8711

1. UST SYSTEM OWNER AND LOCATION

UST Owner/Operator: U.S. DEPARTMENT OF ENERGY-RICHLAND OPERATIONS

Owners Address: 825 JADWIN 550
Street P.O. Box
RICHLAND WA 99352
City State ZIP Code

Telephone: (509) 376-7387

Site ID Number (on invoice or available from Ecology if tank is registered): 012763

Site/Business Name: U.S. DEPARTMENT OF ENERGY-RICHLAND OPERATIONS

Site Address: 825 JADWIN P.O. BOX 550 BENTON
Street County
RICHLAND WA 99352
City State ZIP Code

2. TIGHTNESS TESTING PERFORMED BY:

Firm: EARTH SCIENCE TECHNOLOGY License Number: S000255

Address: 8196 SW HALL BLVD. SUITE 210
Street P.O. Box
BEAVERTON OREGON 97005
City State ZIP Code

Telephone: (503) 643-5374

Licensed Supervisor: FRANK Nichols Tightness Testing License Number: 13512

Sections 3, 4 and 5 must be completed separately for each tank and associated piping tested at the site. For additional tanks you may photocopy this form prior to completing.

3. TANK AND TESTING INFORMATION

1. Tank ID Number (as registered with Ecology): 1172-10 2. Date installed: _____
 3. Tank capacity in gallons: 15000 4. Date of tightness test: 6/24/93
 5. Last substance stored: Diesel 6. Is tank compartmentalized? No
 7. Tank is: single wall double wall

8. Reason for conducting tightness test:
 To comply with leak detection requirements in UST rules
 To bring temporarily closed tank back into service
 Tank or piping repair
 Other (describe) _____

9. Type of test conducted: 10. Test method type:
 Tank tightness test only Overfill
 Line tightness test only Underfill volumetric
 Tank and lines tested separately Nonvolumetric
 Total system test (tank and lines tested together)

11. Tightness testing method(s) used (indicate if more than one method was used - see note following item 12):
 Test method name/version: HORNER EZY-CHEK
 Test method manufacturer: HORNER CREATIVE PRODUCTS

12. If a tank tightness test was conducted, indicate the percentage of tank volume that was filled with product during the test: 100%

Note: A tank must be tested up to the product level limited by the overfill prevention device. If an overfill prevention device is not installed, a tank must be tested up to the 95% full level. When underfill volumetric testing methods are used, the tank must be: 1) filled with product to the 95% full level or 2) the portion of the tank above the product level must be tested using a nonvolumetric method which meets performance standards, for tightness testing.

13. Indicate the method used to determine if groundwater was present above the bottom of the tank during the test (for single wall tanks): PER CUSTOMER INFO

4. CHECKLIST

The following items shall be initiated by the licensed supervisor whose signature appears below.

	Yes	No	NA*
1. Has the tightness testing method used been demonstrated to meet the performance standard specified in the UST rules for the conditions under which the test was conducted? (e.g., detecting a 0.10 gallon per hour leak rate with probability of detection of at least 95% and a probability of false alarm of no more than 5%) <i>Note: A copy of Ecology's policy for demonstrating that leak detection methods meet performance standards may be obtained by contacting Ecology's UST section in Olympia</i>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

<p>2. Have all written testing procedures developed by the manufacturer of the testing equipment and method been followed while the test was being set up and conducted?</p>	<p>Yes</p>	<p>No</p>	<p>NA*</p>
<p>3. Was the product level in the tank during the test within the limitations stated in the evaluation results used to demonstrate that the tightness test method meets performance standards?</p>	<p>Yes</p>	<p>No</p>	<p>NA*</p>
<p>4. Was the waiting period between the addition of product to the tank and the beginning of the test at or above the minimum waiting period stated in the evaluation results?</p>	<p>Yes</p>	<p>No</p>	<p>NA*</p>
<p>5. If groundwater was present above the bottom of the tank, have the testing procedures accounted for its presence? (for single wall tanks)</p>	<p>Yes</p>	<p>No</p>	<p>NA*</p>
<p>6. Have any loose fittings at the top of the tank been either tightened prior to beginning the test or accounted for when conducting the test and evaluating test results? (Applies to overfill methods only) <i>Exception: Interstitial space fitting on double wall tank should remain loose during test for interstitial space to vent to atmosphere.</i></p>	<p>Yes</p>	<p>No</p>	<p>NA*</p>
<p>7. Have all vapor pockets either been removed prior to beginning the test or otherwise accounted for when conducting the test and evaluating test results?</p>	<p>Yes</p>	<p>No</p>	<p>NA*</p>
<p>8. Based on evaluating test results and conducting any retesting as necessary to obtain conclusive test results, the tightness test is: <input checked="" type="checkbox"/> Passed <input type="checkbox"/> Failed Note: Inconclusive test results will not be considered as a valid tightness test for purposes of complying with UST release detection regulations.</p>	<p>Yes</p>	<p>No</p>	<p>NA*</p>
<p>9. If the tightness test is considered a failed test, has the owner/operator been notified of the test results? Note: The tank owner or operator must report a failed tightness test as a suspected release to UST staff at the appropriate Ecology regional office within 24 hours of being notified by the testing firm that a failed tightness test has occurred.</p>	<p>Yes</p>	<p>No</p>	<p>NA*</p>
<p>10. If a failed test has occurred, results indicate that there is a leak in the _____ Tank _____ Piping System If known, the leak rate is: _____ gallons per hour</p>	<p>Yes</p>	<p>No</p>	<p>NA*</p>
<p>*Item not applicable</p> <p><i>I hereby certify that I have been the licensed supervisor present during the above listed tightness testing activities and to the best of my knowledge they have been conducted in compliance with all applicable state and federal laws, regulations and procedures pertaining to underground storage tanks.</i></p> <p><i>Persons submitting false information are subject to penalties under Chapter 173-360 WAC.</i></p> <p><u>6/27/93</u> _____ Date Signature of Licensed Supervisor</p>			

5. ADDITIONAL REQUIRED SIGNATURES

6/27/93 _____
Date Signature of Licensed Service Provider firm (owner or person with signature authority)

Date Signature of Tank Owner or Authorized Representative



UNDERGROUND STORAGE TANK Tightness Testing Checklist

T 1172-3

The purpose of this form is to certify the proper tightness testing of underground storage tank (UST) systems including connecting underground piping. Tightness testing shall be conducted in accordance with Chapter 173.360 WAC.

This Tightness Testing Checklist shall be completed and signed by a Licensed Tightness Testing Supervisor. The supervisor shall be on site when all tank tightness testing activities are being conducted. The firm which employs the licensed supervisor shall also be licensed by the Washington State Department of Ecology as a Service Provider.

Underground storage tank rules require owners/operators to employ a licensed tank services provider to repair, replace, upgrade, or close the UST system and to begin corrective action in accordance with WAC 173-360-399 if the test results indicate that a leak exists.

For further information about completing this form, please contact the Department of Ecology UST Program.

A separate checklist must be completed for each UST system (tank and associated piping) tightness tested, except that separate UST systems tightness tested at one site may be reported together by completing page 2 of this form separately for each system. The completed checklist should be mailed to the following address within 30 days of completion of tightness testing:

Underground Storage Tank Section
Department of Ecology
Mail Stop PV-11
Olympia, WA 98504-8711

1. UST SYSTEM OWNER AND LOCATION

UST Owner/Operator: U.S. DEPARTMENT OF ENERGY-RICHLAND OPERATIONS

Owners Address: 825 JADWIN 550
Street P.O. Box
RICHLAND WA 99352
City State ZIP-Code

Telephone: (509) 376-7387

Site ID Number (on invoice or available from Ecology if tank is registered): 012763

Site/Business Name: U.S. DEPARTMENT OF ENERGY-RICHLAND OPERATIONS

Site Address: 825 JADWIN P.O. BOX 550 BENTON
Street P.O. Box County
RICHLAND WA 99352
City State ZIP-Code

2. TIGHTNESS TESTING PERFORMED BY:

Firm: EARTH SCIENCE TECHNOLOGY License Number: S000255

Address: 8196 SW HALL BLVD. SUITE 210
Street P.O. Box
BEAVERTON OREGON 97005
City State ZIP-Code

Telephone: (503) 643-5374

Licensed Supervisor: FRANK NICHOLS Tightness Testing License Number: 13512

Sections 3, 4 and 5 must be completed separately for each tank and associated piping tested at the site. For additional tanks you may photocopy this form prior to completing.

3. TANK AND TESTING INFORMATION

1. Tank ID Number (as registered with Ecology): 1172-8 2. Date installed: _____
 3. Tank capacity in gallons: 15000 4. Date of tightness test: 6/27/93
 5. Last substance stored: UL Gasoline 6. Is tank compartmentalized? No
 7. Tank is: single wall _____ double wall

8. Reason for conducting tightness test:
 To comply with leak detection requirements in UST rules
 _____ To bring temporarily closed tank back into service
 _____ Tank or piping repair
 _____ Other (describe) _____

9. Type of test conducted: 10. Test method type:
 _____ Tank tightness test only Overfill
 _____ Line tightness test only _____ Underfill volumetric
 _____ Tank and lines tested separately _____ Nonvolumetric
 Total system test (tank and lines tested together)

11. Tightness testing method(s) used (indicate if more than one method was used - see note following item 12):
 Test method name/version HORNER EZY-CHEK
 Test method manufacturer HORNER CREATIVE PRODUCTS

12. If a tank tightness test was conducted, indicate the percentage of tank volume that was filled with product during the test: 100%

Note: A tank must be tested up to the product level limited by the overfill prevention device. If an overfill prevention device is not installed, a tank must be tested up to the 95% full level. When underfill volumetric testing methods are used, the tank must be: 1) filled with product to the 95% full level or 2) the portion of the tank above the product level must be tested using a nonvolumetric method which meets performance standards, for tightness testing.

13. Indicate the method used to determine if groundwater was present above the bottom of the tank during the test (for single wall tanks): PER CUSTOMER INFO

4. CHECKLIST

The following items shall be initialed by the licensed supervisor whose signature appears below.

	Yes	No	NA*
1. Has the tightness testing method used been demonstrated to meet the performance standard specified in the UST rules for the conditions under which the test was conducted? (e.g., detecting a 0.10 gallon per hour leak rate with probability of detection of at least 95% and a probability of false alarm of no more than 5%) <i>Note: A copy of Ecology's policy for demonstrating that leak detection methods meet performance standards may be obtained by contacting Ecology's UST section in Olympia.</i>			



UNDERGROUND STORAGE TANK Tightness Testing Checklist

T 1172-11

The purpose of this form is to certify the proper tightness testing of underground storage tank (UST) systems including connecting underground piping. Tightness testing shall be conducted in accordance with Chapter 173.360 WAC.

This Tightness Testing Checklist shall be completed and signed by a Licensed Tightness Testing Supervisor. The supervisor shall be on site when all tank tightness testing activities are being conducted. The firm which employs the licensed supervisor shall also be licensed by the Washington State Department of Ecology as a Service Provider.

Underground storage tank rules require owners/operators to employ a licensed tank services provider to repair, replace, upgrade, or close the UST system and to begin corrective action in accordance with WAC 173-360-399 if the test results indicate that a leak exists.

For further information about completing this form, please contact the Department of Ecology UST Program.

A separate checklist must be completed for each UST system (tank and associated piping) tightness tested, except that separate UST systems tightness tested at one site may be reported together by completing page 2 of this form separately for each system. The completed checklist should be mailed to the following address within 30 days of completion of tightness testing:

Underground Storage Tank Section
Department of Ecology
Mail Stop PV-11
Olympia, WA 98504-8711

1. UST SYSTEM OWNER AND LOCATION

UST Owner/Operator: U.S. DEPARTMENT OF ENERGY-RICHLAND OPERATIONS

Owners Address: 825 JADWIN 550
Street P.O. Box
RICHLAND WA 99352
City State ZIP Code

Telephone: (509) 376-7387

Site ID Number (on invoice or available from Ecology if tank is registered): 012763

Site/Business Name: U.S. DEPARTMENT OF ENERGY-RICHLAND OPERATIONS

Site Address: 825 JADWIN P.O. BOX 550 BENTON
Street County
RICHLAND WA 99352
City State ZIP Code

2. TIGHTNESS TESTING PERFORMED BY:

Firm: EARTH SCIENCE TECHNOLOGY License Number: S000255

Address: 8196 SW HALL BLVD. SUITE 210
Street P.O. Box
BEAVERTON OREGON 97005
City State ZIP Code

Telephone: (503) 643-5374

Licensed Supervisor: FRANK NICHOLS Tightness Testing License Number: 13512

Sections 3, 4 and 5 must be completed separately for each tank and associated piping tested at the site. For additional tanks you may photocopy this form prior to completing.

2. TANK AND TESTING INFORMATION

1. Tank ID Number (as registered with Ecology): _____ 2. Date installed: _____
 3. Tank capacity in gallons: 6000 4. Date of tightness test: 6/27/93
 5. Last substance stored: Waste Oil 6. Is tank compartmentalized? No
 7. Tank is: single wall _____ double wall

8. Reason for conducting tightness test:
 To comply with leak detection requirements in UST rules
 _____ To bring temporarily closed tank back into service
 _____ Tank or piping repair
 _____ Other (describe) _____

9. Type of test conducted: _____ Tank tightness test only
 _____ Line tightness test only
 _____ Tank and lines tested separately
 Total system test (tank and lines tested together)
 10. Test method type:
 Overfill
 _____ Underfill volumetric
 _____ Nonvolumetric

11. Tightness testing method(s) used (indicate if more than one method was used - see note following item 12):
 Test method name/version HORNER EZY-CHEK
 Test method manufacturer HORNER CREATIVE PRODUCTS

12. If a tank tightness test was conducted, indicate the percentage of tank volume that was filled with product during the test: 100%

Note: A tank must be tested up to the product level limited by the overfill prevention device. If an overfill prevention device is not installed, a tank must be tested up to the 95% full level. When underfill volumetric testing methods are used, the tank must be: 1) filled with product to the 95% full level or 2) the portion of the tank above the product level must be tested using a nonvolumetric method which meets performance standards, for tightness testing.

13. Indicate the method used to determine if groundwater was present above the bottom of the tank during the test (for single wall tanks): PER CUSTOMER INFO

4. CHECKLIST

The following items shall be initialed by the licensed supervisor whose signature appears below.

	Yes	No	NA*
1. Has the tightness testing method used been demonstrated to meet the performance standard specified in the UST rules for the conditions under which the test was conducted? (e.g., detecting a 0.10 gallon per hour leak rate with probability of detection of at least 95% and a probability of false alarm of no more than 5%) Note: A copy of Ecology's policy for demonstrating that leak detection methods meet performance standards may be obtained by contacting Ecology's UST section in Olympia.			



UNDERGROUND STORAGE TANK Tightness Testing Checklist

T17

The purpose of this form is to certify the proper tightness testing of underground storage tank (UST) systems including connecting underground piping. Tightness testing shall be conducted in accordance with Chapter 173.360 WAC.

This Tightness Testing Checklist shall be completed and signed by a Licensed Tightness Testing Supervisor. The supervisor shall be on site when all tank tightness testing activities are being conducted. The firm which employs the licensed supervisor shall also be licensed by the Washington State Department of Ecology as a Service Provider.

Underground storage tank rules require owners/operators to employ a licensed tank services provider to repair, replace, upgrade, or close the UST system and to begin corrective action in accordance with WAC 173-360-399 if the test results indicate that a leak exists.

For further information about completing this form, please contact the Department of Ecology UST Program.

A separate checklist must be completed for each UST system (tank and associated piping) tightness tested, except that separate UST systems tightness tested at one site may be reported together by completing page 2 of this form separately for each system. The completed checklist should be mailed to the following address within 30 days of completion of tightness testing:

Underground Storage Tank Section
Department of Ecology
Mail Stop PV-11
Olympia, WA 98504-8711

1. UST SYSTEM OWNER AND LOCATION

UST Owner/Operator: U.S. DEPARTMENT OF ENERGY-RICHLAND OPERATIONS

Owners Address: 825 JADWIN 550
Street P.O. Box
RICHLAND WA 99352
City State ZIP-Code

Telephone: (509) 376-7387

Site ID Number (on invoice or available from Ecology if tank is registered): 012763

Site/Business Name: U.S. DEPARTMENT OF ENERGY-RICHLAND OPERATIONS

Site Address: 825 JADWIN P.O. BOX 550 BENTON
Street P.O. Box County
RICHLAND WA 99352
City State ZIP-Code

2. TIGHTNESS TESTING PERFORMED BY:

Firm: EARTH SCIENCE TECHNOLOGY License Number: S000255

Address: 8196 SW HALL BLVD. SUITE 210
Street P.O. Box
BEAVERTON OREGON 97005
City State ZIP-Code

Telephone: (503) 643-5374

Licensed Supervisor: FRANK NICHOLS Tightness Testing License Number: 13512

Sections 1, 2 and 3 must be completed separately for each tank and associated piping tested at the site. For additional tanks you may photocopy this form prior to completing.

3. TANK AND TESTING INFORMATION

1. Tank ID Number (as registered with Ecology): T17 2. Date installed: _____
3. Tank capacity in gallons: 20,000 4. Date of tightness test: 6/29/93
5. Last substance stored: Diesel 6. Is tank compartmentalized? NO
7. Tank is: single wall _____ double wall

8. Reason for conducting tightness test:
 To comply with leak detection requirements in UST rules
____ To bring temporarily closed tank back into service
____ Tank or piping repair
____ Other (describe) _____

9. Type of test conducted: 10. Test method type:
____ Tank tightness test only Overfill
____ Line tightness test only _____ Underfill volumetric
____ Tank and lines tested separately _____ Nonvolumetric
 Total system test (tank and lines tested together)

11. Tightness testing method(s) used (indicate if more than one method was used - see note following item 12):
Test method name/version HORNER EZY-CHEK
Test method manufacturer HORNER CREATIVE PRODUCTS

12. If a tank tightness test was conducted, indicate the percentage of tank volume that was filled with product during the test: 100%

Note: A tank must be tested up to the product level limited by the overfill prevention device. If an overfill prevention device is not installed, a tank must be tested up to the 95% full level. When underfill volumetric testing methods are used, the tank must be: 1) filled with product to the 95% full level or 2) the portion of the tank above the product level must be tested using a nonvolumetric method which meets performance standards, for tightness testing.

13. Indicate the method used to determine if groundwater was present above the bottom of the tank during the test (for single wall tanks): PER CUSTOMER INFO

4. CHECKLIST

The following items shall be initiated by the licensed supervisor whose signature appears below.

	Yes	No	NA*
1. Has the tightness testing method used been demonstrated to meet the performance standard specified in the UST rules for the conditions under which the test was conducted? (e.g., detecting a 0.10 gallon per hour leak rate with probability of detection of at least 95% and a probability of false alarm of no more than 5%) <i>Note: A copy of Ecology's policy for demonstrating that leak detection methods meet performance standards may be obtained by contacting Ecology's UST section in Olympia.</i>			

<p>2. Have all written testing procedures developed by the manufacturer of the testing equipment and method been followed while the test was being set up and conducted?</p>	<p>Yes</p>	<p>No</p>	<p>NA*</p>
<p>3. Was the product level in the tank during the test within the limitations stated in the evaluation results used to demonstrate that the tightness test method meets performance standards?</p>	<p>Yes</p>	<p>No</p>	<p>NA*</p>
<p>4. Was the waiting period between the addition of product to the tank and the beginning of the test at or above the minimum waiting period stated in the evaluation results?</p>	<p>Yes</p>	<p>No</p>	<p>NA*</p>
<p>5. If groundwater was present above the bottom of the tank, have the testing procedures accounted for its presence? (for single wall tanks)</p>	<p>Yes</p>	<p>No</p>	<p>NA*</p>
<p>6. Have any loose fittings at the top of the tank been either tightened prior to beginning the test or accounted for when conducting the test and evaluating test results? (Applies to overfill methods only) <i>Exception: Interstitial space fitting on double wall tank should remain loose during test for interstitial space to vent to atmosphere.</i></p>	<p>Yes</p>	<p>No</p>	<p>NA*</p>
<p>7. Have all vapor pockets either been removed prior to beginning the test or otherwise accounted for when conducting the test and evaluating test results?</p>	<p>Yes</p>	<p>No</p>	<p>NA*</p>
<p>8. Based on evaluating test results and conducting any retesting as necessary to obtain conclusive test results, the tightness test is: <input checked="" type="checkbox"/> Passed <input type="checkbox"/> Failed Note: Inconclusive test results will not be considered as a valid tightness test for purposes of complying with UST release detection regulations.</p>	<p>Yes</p>	<p>No</p>	<p>NA*</p>
<p>9. If the tightness test is considered a failed test, has the owner/operator been notified of the test results? Note: The tank owner or operator must report a failed tightness test as a suspected release to UST staff at the appropriate Ecology regional office within 24 hours of being notified by the testing firm that a failed tightness test has occurred.</p>	<p>Yes</p>	<p>No</p>	<p>NA*</p>
<p>10. If a failed test has occurred, results indicate that there is a leak in the _____ Tank _____ Piping System If known, the leak rate is: _____ gallons per hour</p>	<p>Yes</p>	<p>No</p>	<p>NA*</p>

*Item not applicable

I hereby certify that I have been the licensed supervisor present during the above listed tightness testing activities and to the best of my knowledge they have been conducted in compliance with all applicable state and federal laws, regulations and procedures pertaining to underground storage tanks.

Persons submitting false information are subject to penalties under Chapter 173-360 WAC.

6/29/93
Date

Frank Mitchell
Signature of Licensed Supervisor

5. ADDITIONAL REQUIRED SIGNATURES

6/29/93
Date

J. Joseph Moriarty
Signature of Licensed Service Provider firm (owner or person with signature authority)

Date

Signature of Tank Owner or Authorized Representative



UNDERGROUND STORAGE TANK Tightness Testing Checklist

T 24

The purpose of this form is to certify the proper tightness testing of underground storage tank (UST) systems including connecting underground piping. Tightness testing shall be conducted in accordance with Chapter 173.360 WAC.

This Tightness Testing Checklist shall be completed and signed by a Licensed Tightness Testing Supervisor. The supervisor shall be on site when all tank tightness testing activities are being conducted. The firm which employs the licensed supervisor shall also be licensed by the Washington State Department of Ecology as a Service Provider.

Underground storage tank rules require owners/operators to employ a licensed tank services provider to repair, replace, upgrade, or close the UST system and to begin corrective action in accordance with WAC 173-360-399 if the test results indicate that a leak exists.

For further information about completing this form, please contact the Department of Ecology UST Program.

A separate checklist must be completed for each UST system (tank and associated piping) tightness tested, except that separate UST systems tightness tested at one site may be reported together by completing page 2 of this form separately for each system. The completed checklist should be mailed to the following address within 30 days of completion of tightness testing:

Underground Storage Tank Section
Department of Ecology
Mail Stop PV-11
Olympia, WA 98504-8711

1. UST SYSTEM OWNER AND LOCATION

UST Owner/Operator: U.S. DEPARTMENT OF ENERGY-RICHLAND OPERATIONS

Owners Address: 825 JADWIN 550
Street P.O. Box

RICHLAND WA 99352
City State ZIP-Code

Telephone: (509) 376-7387

Site ID Number (on invoice or available from Ecology if tank is registered): 012763

Site/Business Name: U.S. DEPARTMENT OF ENERGY-RICHLAND OPERATIONS

Site Address: 825 JADWIN P.O. BOX 550 BENTON
Street County

RICHLAND WA 99352
City State ZIP-Code

2. TIGHTNESS TESTING PERFORMED BY:

Firm: EARTH SCIENCE TECHNOLOGY License Number: S000255

Address: 8196 SW HALL BLVD. SUITE 210
Street P.O. Box

BEAVERTON OREGON 97005
City State ZIP-Code

Telephone: (503) 643-5374

Licensed Supervisor: FRANK NICHOLS Tightness Testing License Number: 13512

3. TANK AND TESTING INFORMATION

1. Tank ID Number (as registered with Ecology): T24 2. Date installed: _____
3. Tank capacity in gallons: 550 4. Date of tightness test: 6/29/93
5. Last substance stored: Diesel 6. Is tank compartmentalized? No
7. Tank is: single wall double wall

8. Reason for conducting tightness test:
- To comply with leak detection requirements in UST rules
- To bring temporarily closed tank back into service
- Tank or piping repair
- Other (describe) _____

9. Type of test conducted:
- Tank tightness test only
- Line tightness test only
- Tank and lines tested separately
- Total system test (tank and lines tested together)
10. Test method type:
- Overfill
- Underfill volumetric
- Nonvolumetric

11. Tightness testing method(s) used (indicate if more than one method was used - see note following item 12):
- Test method name/version: HORNER EZY-CHEK
- Test method manufacturer: HORNER CREATIVE PRODUCTS

12. If a tank tightness test was conducted, indicate the percentage of tank volume that was filled with product during the test: 100%

Note: A tank must be tested up to the product level limited by the overfill prevention device. If an overfill prevention device is not installed, a tank must be tested up to the 95% full level. When underfill volumetric testing methods are used, the tank must be: 1) filled with product to the 95% full level or 2) the portion of the tank above the product level must be tested using a nonvolumetric method which meets performance standards, for tightness testing.

13. Indicate the method used to determine if groundwater was present above the bottom of the tank during the test (for single wall tanks): PER CUSTOMER INFO

4. CHECKLIST

The following items shall be initiated by the licensed supervisor whose signature appears below.

	Yes	No	NA*
1. Has the tightness testing method used been demonstrated to meet the performance standard specified in the UST rules for the conditions under which the test was conducted? (e.g., detecting a 0.10 gallon per hour leak rate with probability of detection of at least 95% and a probability of false alarm of no more than 5%) <i>Note: A copy of Ecology's policy for demonstrating that leak detection methods meet performance standards may be obtained by contacting Ecology's UST section in Olympia.</i>			



UNDERGROUND STORAGE TANK Tightness Testing Checklist

T18

The purpose of this form is to certify the proper tightness testing of underground storage tank (UST) systems including connecting underground piping. Tightness testing shall be conducted in accordance with Chapter 173.360 WAC.

This Tightness Testing Checklist shall be completed and signed by a Licensed Tightness Testing Supervisor. The supervisor shall be on site when all tank tightness testing activities are being conducted. The firm which employs the licensed supervisor shall also be licensed by the Washington State Department of Ecology as a Service Provider.

Underground storage tank rules require owners/operators to employ a licensed tank services provider to repair, replace, upgrade, or close the UST system and to begin corrective action in accordance with WAC 173-360-399 if the test results indicate that a leak exists.

For further information about completing this form, please contact the Department of Ecology UST Program.

A separate checklist must be completed for each UST system (tank and associated piping) tightness tested, except that separate UST systems tightness tested at one site may be reported together by completing page 2 of this form separately for each system. The completed checklist should be mailed to the following address within 30 days of completion of tightness testing:

Underground Storage Tank Section
Department of Ecology
Mail Stop PV-11
Olympia, WA 98504-8711

1. UST SYSTEM OWNER AND LOCATION

UST Owner/Operator: U.S. DEPARTMENT OF ENERGY-RICHLAND OPERATIONS

Owners Address: 825 JADWIN 550
Street P.O. Box
RICHLAND WA 99352
City State ZIP-Code

Telephone: (509) 376-7387

Site ID Number (on invoice or available from Ecology if tank is registered): 012763

Site/Business Name: U.S. DEPARTMENT OF ENERGY-RICHLAND OPERATIONS

Site Address: 825 JADWIN P.O. BOX 550 BENTON
Street County
RICHLAND WA 99352
City State ZIP-Code

2. TIGHTNESS TESTING PERFORMED BY:

Firm: EARTH SCIENCE TECHNOLOGY License Number: S000255

Address: 8196 SW HALL BLVD. SUITE 210
Street P.O. Box
BEAVERTON OREGON 97005
City State ZIP-Code

Telephone: (503) 643-5374

Licensed Supervisor: FRANK NICHOLS Tightness Testing License Number: 13512

3. TANK AND TESTING INFORMATION

1. Tank ID Number (as registered with Ecology): T 18 2. Date installed: _____
3. Tank capacity in gallons: 20,000 4. Date of tightness test: 6/30/93
5. Last substance stored: Diesel 6. Is tank compartmentalized? No
7. Tank is: single wall double wall

8. Reason for conducting tightness test:
- To comply with leak detection requirements in UST rules
- To bring temporarily closed tank back into service
- Tank or piping repair
- Other (describe) _____

9. Type of test conducted:
- Tank tightness test only
- Line tightness test only
- Tank and lines tested separately
- Total system test (tank and lines tested together)
10. Test method type:
- Overfill
- Underfill volumetric
- Nonvolumetric

11. Tightness testing method(s) used (indicate if more than one method was used - see note following item #2):
- Test method name/version HORNER EZY-CHEK
- Test method manufacturer HORNER CREATIVE PRODUCTS

12. If a tank tightness test was conducted, indicate the percentage of tank volume that was filled with product during the test: 100%

Note: A tank must be tested up to the product level limited by the overfill prevention device. If an overfill prevention device is not installed, a tank must be tested up to the 95% full level. When underfill volumetric testing methods are used, the tank must be: 1) filled with product to the 95% full level or 2) the portion of the tank above the product level must be tested using a nonvolumetric method which meets performance standards, for tightness testing.

13. Indicate the method used to determine if groundwater was present above the bottom of the tank during the test (for single wall tanks): PER CUSTOMER INFO

4. CHECKLIST

The following items shall be initialed by the licensed supervisor whose signature appears below.

	Yes	No	NA*
1. Has the tightness testing method used been demonstrated to meet the performance standard specified in the UST rules for the conditions under which the test was conducted? (e.g., detecting a 0.10 gallon per hour leak rate with probability of detection of at least 95% and a probability of false alarm of no more than 5%)			
<i>Note: A copy of Ecology's policy for demonstrating that leak detection methods meet performance standards may be obtained by contacting Ecology's UST section in Olympia.</i>			



UNDERGROUND STORAGE TANK Tightness Testing Checklist

T 6652C

The purpose of this form is to certify the proper tightness testing of underground storage tank (UST) systems including connecting underground piping. Tightness testing shall be conducted in accordance with Chapter 173.360 WAC.

This Tightness Testing Checklist shall be completed and signed by a Licensed Tightness Testing Supervisor. The supervisor shall be on site when all tank tightness testing activities are being conducted. The firm which employs the licensed supervisor shall also be licensed by the Washington State Department of Ecology as a Service Provider.

Underground storage tank rules require owners/operators to employ a licensed tank services provider to repair, replace, upgrade, or close the UST system and to begin corrective action in accordance with WAC 173-360-399 if the test results indicate that a leak exists.

For further information about completing this form, please contact the Department of Ecology UST Program.

A separate checklist must be completed for each UST system (tank and associated piping) tightness tested, except that separate UST systems tightness tested at one site may be reported together by completing page 2 of this form separately for each system. The completed checklist should be mailed to the following address within 30 days of completion of tightness testing:

Underground Storage Tank Section
Department of Ecology
Mail Stop PV-11
Olympia, WA 98504-8711

1. UST SYSTEM OWNER AND LOCATION

UST Owner/Operator: U.S. DEPARTMENT OF ENERGY-RICHLAND OPERATIONS

Owners Address: 825 JADWIN 550
Street P.O. Box
RICHLAND WA 99352
City State ZIP-Code

Telephone: (509) 376-7387

Site ID Number (on invoice or available from Ecology if tank is registered): 012763

Site/Business Name: U.S. DEPARTMENT OF ENERGY-RICHLAND OPERATIONS

Site Address: 825 JADWIN P.O. BOX 550 BENTON
Street County
RICHLAND WA 99352
City State ZIP-Code

2. TIGHTNESS TESTING PERFORMED BY:

Firm: EARTH SCIENCE TECHNOLOGY License Number: S000255

Address: 8196 SW HALL BLVD. SUITE 210
Street P.O. Box
BEAVERTON OREGON 97005
City State ZIP-Code

Telephone: (503) 643-5374

Licensed Supervisor: FRANK NICHOLS Tightness Testing License Number: 13512

Sections 3, 4 and 5 must be completed separately for each tank and associated piping tested at the site. For additional tanks you may photocopy this form prior to completing.

3. TANK AND TESTING INFORMATION

1. Tank ID Number (as registered with Ecology): 6652C 2. Date installed: 6/5/57
 3. Tank capacity in gallons: 5000 4. Date of tightness test: 6/25/93
 5. Last substance stored: UL Gasoline 6. Is tank compartmentalized? No
 7. Tank is: single wall double wall

8. Reason for conducting tightness test:
 To comply with leak detection requirements in UST rules
 To bring temporarily closed tank back into service
 Tank or piping repair
 Other (describe) _____

9. Type of test conducted: 10. Test method type:
 Tank tightness test only Overfill
 Line tightness test only Underfill volumetric
 Tank and lines tested separately Nonvolumetric
 Total system test (tank and lines tested together)

11. Tightness testing method(s) used (indicate if more than one method was used - see note following item 12):
 Test method name/version HORNER EZY-CHEK
 Test method manufacturer HORNER CREATIVE PRODUCTS

12. If a tank tightness test was conducted, indicate the percentage of tank volume that was filled with product during the test: 100%

Note: A tank must be tested up to the product level limited by the overfill prevention device. If an overfill prevention device is not installed, a tank must be tested up to the 95% full level. When underfill volumetric testing methods are used, the tank must be: 1) filled with product to the 95% full level or 2) the portion of the tank above the product level must be tested using a nonvolumetric method which meets performance standards, for tightness testing.

13. Indicate the method used to determine if groundwater was present above the bottom of the tank during the test (for single wall tanks): PER CUSTOMER INFO

4. CHECKLIST

The following items shall be initialed by the licensed supervisor whose signature appears below.

	Yes	No	NA*
1. Has the tightness testing method used been demonstrated to meet the performance standard specified in the UST rules for the conditions under which the test was conducted? (e.g., detecting a 0.10 gallon per hour leak rate with probability of detection of at least 95% and a probability of false alarm of no more than 5%) <i>Note: A copy of Ecology's policy for demonstrating that leak detection methods meet performance standards may be obtained by contacting Ecology's UST section in Olympia.</i>			

CORRESPONDENCE DISTRIBUTION COVERSHEET

Author	Addressee	Correspondence No.
K. A. Giese, 376-8301	R. G. Holt, RL	9356259D

Subject: UNDERGROUND STORAGE TANK TIGHTNESS TESTING RESULTS

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CORRESPONDENCE DISTRIBUTION COVERSHEET

Author	Addressee	Correspondence No.
R. G. Holt, RL (K. A. Giese, WHC)	D. C. Nylander, Ecology	Incoming:9307006 XRef:9356259D

Subject: TRANSMITTAL OF 1993 UNDERGROUND STORAGE TANK TIGHTNESS TESTING
CHECKLIST

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