Rule Summary and Fiscal Analysis (Part A)

Department Of Commerce
Agency Name

Division Of State Fire Marshal | **Kevin Schmidt**
Division | Contact

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1301:7-9-07 | **NEW**
Rule Number | TYPE of rule filing

Rule Title/Tag Line: **RELEASE DETECTION REQUIREMENTS AND METHODS FOR UST SYSTEMS.**

RULE SUMMARY

1. Is the rule being filed consistent with the requirements of the RC 119.032 review? **No**

2. Are you proposing this rule as a result of recent legislation? **No**

3. Statute prescribing the procedure in accordance with the agency is required to adopt the rule: **119.03**

4. Statute(s) authorizing agency to adopt the rule: **3737.88**

5. Statute(s) the rule, as filed, amplifies or implements: **3737.88**

6. State the reason(s) for proposing (i.e., why are you filing,) this rule:

Five year rule revision required under ORC 119.032.

7. If the rule is an AMENDMENT, then summarize the changes and the content of the proposed rule; If the rule type is RESCISSION, NEW or NO CHANGE, then summarize the content of the rule:

Rule 1301:7-9-07 defines leak detection requirements for UST systems.

The applicability section has been altered to reflect changes in OAC 1301:7-9-01, Applicability (there is no change in the type of UST systems BUSTR regulates).

Definitions are moved to OAC 1301:7-9-02, Definitions. Soil gas monitoring or ground water monitoring is no longer allowed as the sole method of leak detection, UST systems using one of these methods must switch to another method on or before December 31, 2005. UST systems containing petroleum used for motor or aviation fuel are now subject to daily product inventory control. Leak detection requirements for dispenser and submersible pump sumps required by OAC 1301:7-9-06 have been added, applicable to UST systems installed after the effective date of the rule only. Leak detection requirements for UST systems containing hazardous substances and petroleum UST systems located in sensitive areas has been combined (with no additional requirements for these systems). A provision that allows owner or operators to substitute a method of monthly monitoring for an annual test of pressurized piping has been eliminated. Rules governing tightness testing of various parts of UST systems have been combined into one section. Tightness testing must now be performed by a Certified UST Installer.

8. If the rule incorporates a text or other material by reference and the agency claims the incorporation by reference is exempt from compliance with sections 121.71 to 121.74 of the Revised Code because the text or other material is **generally available** to persons who reasonably can be expected to be affected by the rule, provide an explanation of how the text or other material is generally available to those persons:

Referenced standards are generally available to all affected parties. The reference standards can easily be purchased from the standard making organization. The affected parties typically will be professional engineers or otherwise professionals in the field of underground storage tank installation, removal and repair. These parties would be expected to already own these standards in order to conduct their business.

9. If the rule incorporates a text or other material by reference, and it was **infeasible** for the agency to file the text or other material electronically, provide an explanation of why filing the text or other material electronically was infeasible:

It was infeasible for the agency to file the text electronically due to copyright issues with the standards making organizations. The standards are generally available.

10. If the rule is being **rescinded** and incorporates a text or other material by reference, and it was **infeasible** for the agency to file the text or other material, provide an explanation of why filing the text or other material was infeasible:

Not Applicable.

11. If **revising** or **refiling** this rule, identify changes made from the previously filed version of this rule; if none, please state so:

The following change in this rule was made in response to concerns identified at the public hearing:

1301:7-9-07(F)(7)... A phase-in date of January 1, 2006 was added to the requirement that the annual evaluation and maintenance of leak detection devices be supervised by a Certified UST Installer.

12. 119.032 Rule Review Date:

(If the rule is not exempt and you answered NO to question No. 1, provide the scheduled review date. If you answered YES to No. 1, the review date for this rule is the filing date.)

NOTE: If the rule is not exempt at the time of final filing, two dates are required: the current review date plus a date not to exceed 5 years from the effective date for Amended rules or a date not to exceed 5 years from the review date for No Change rules.

FISCAL ANALYSIS

13. Estimate the total amount by which *this proposed rule* would **increase / decrease** either **revenues / expenditures** for the agency during the current biennium (in dollars): Explain the net impact of the proposed changes to the budget of your agency/department.

This will have no impact on revenues or expenditures.

$0

This rule should not significantly change revenues or expenditures for the agency.

14. Identify the appropriation (by line item etc.) that authorizes each expenditure necessitated by the proposed rule:

Not applicable.

15. Provide a summary of the estimated cost of compliance with the rule to all directly affected persons. When appropriate, please include the source for your information/estimated costs, e.g. industry, CFR, internal/agency:

A cost analysis of compliance with this rule is included in Attachment B. The cost

for leak detection for new UST systems can vary widely depending on the type and size of the tank and associated piping and ancillary equipment. BUSTR solicited price quotes from UST installers for a typical installation of 3 10,000 gallon UST systems, and received cost estimates ranging from $3,500 to $7,000 per UST system for typically installed electronic leak detection equipment. This rule revision may impose additional requirements on new UST installations beyond what is required in the previous rule. UST systems using soil gas monitoring or ground water monitoring will have to replace these systems with other valid methods of leak detection. These methods detect the presence of a release by sampling environmental media, and are being disallowed for the following reasons: they are technically complex and require a sophisticated owner or operator to be used properly, contamination is not detected until after the release has had a chance to become extensive, and proper use makes these systems more expensive than more commonly used leak detection systems. As many owners and operators mis-report installed observation wells as ??ground water monitoring systems?? it is not possible to say exactly how many systems may be impacted, evidence from field compliance reports are that these systems are very rare. The elimination of monthly monitoring as a substitute for annual tightness testing may increase the cost of annual maintenance for owners and operators, by approximately $200 to $300 per UST system. The requirement that a Certified UST Installer supervise all precision testing may add costs to tank owners and operators. The cost is additional billable hours for the Certified UST Installer if the precision tester is not already a Certified UST Installer. Most precision tests take from 4 to 8 hours to complete.

16. Does this rule have a fiscal effect on school districts, counties, townships, or municipal corporations? **Yes**

You must complete Part B of the Rule Summary and Fiscal Analysis in order to comply with Am. Sub. S.B. 33 of the 120th General Assembly.

17. Does this rule deal with environmental protection or contain a component dealing with environmental protection as defined in R. C. 121.39? **Yes**

You must complete the Environmental rule Adoption/Amendment Form in order to comply with Am. Sub. 106 of the 121st General Assembly.

Rule Summary and Fiscal Analysis (Part B)

1. Does the proposed rule have a fiscal effect on any of the following (please check each that applies)?

(a) School Districts	(b) Counties	(c) Townships	(c) Municipal Corporations
X	X	X	X

2. Please provide an estimate in dollars of the cost of compliance with the proposed rule for school districts, counties, townships, or municipal corporations. If you are unable to provide an estimate in dollars, please provide a written explanation of why it is not possible to provide such an estimate.

A cost analysis of compliance with this rule is included in Attachment B. The cost for leak detection for new UST systems can vary widely depending on the type and size of the tank and associated piping and ancillary equipment. BUSTR solicited price quotes from UST installers for a typical installation of 3 10,000 gallon UST systems, and received cost estimates ranging from $3,500 to $7,000 per UST system for typically installed electronic leak detection equipment.

3. If the proposed rule is the result of a federal requirement, does the proposed rule exceed the scope and intent of the federal requirement?

Yes	No
X	

4. If the proposed rule exceeds the minimum necessary federal requirement, please provide an estimate of, and justification for, the excess costs that exceed the cost of the federal requirement. In particular, please provide an estimate of the excess costs that exceed the cost of the federal requirement for (a) school districts, (b) counties, (c) townships, and (d) municipal corporations.

This rule revision imposes additional restrictions on leak detection systems for UST systems beyond what is required in federal regulations. UST systems using soil gas monitoring or ground water monitoring will have to replace these systems with other valid methods of leak detection (these leak detection systems are allowed federal regulations). These methods detect the presence of a release by sampling environmental media, and are being disallowed fo9r the following reasons: they are technically complex and require a sophisticated owner or operator to be used properly, contamination is not detected until after the release has had a chance to become extensive, and proper use makes these systems more expensive than more commonly used leak detection systems. As many owners and operators mis-report installed observation wells as "ground water monitoring systems" it is not possible to say exactly how many systems may be impacted, evidence from field compliance reports are that these systems are very rare. Any owner or operator of a UST system may apply for a variance from the Fire Marshal to continue to use these systems if they can demonstrate that they are being used properly and are appropriate for the UST system.

The elimination of monthly monitoring as a substitute for annual tightness testing is more stringent that federal requirements. This change is justified by the fact that piping systems are the most likely source of releases on UST systems, and that the agency has concerns about the long term integrity of many types of piping in common use in Ohio, justified by USEPA and state studies.

5. Please provide a comprehensive cost estimate for the proposed rule that includes the procedure and method used for calculating the costs of compliance. This comprehensive cost estimate should identify all of the major cost categories including, but not limited to, (a) personnel costs, (b) new equipment or other capital costs, (c) operating costs, and (d) any indirect central service costs.

   A cost analysis of compliance with this rule is included in Attachment B. The cost for leak detection for new UST systems can vary widely depending on the type and size of the tank and associated piping and ancillary equipment. BUSTR solicited price quotes from UST installers for a typical installation of 3 10,000 gallon UST systems, and received cost estimates ranging from $3,500 to $7,000 per UST system for typically installed electronic leak detection equipment.

6. Please provide a written explanation of the agency's and the local government's ability to pay for the new requirements imposed by the proposed rule.

   These costs are ordinary costs of conducting the business of the local government entity which will come from the normal operating budgets of the entities.

7. Please provide a statement on the proposed rule's impact on economic development.

   This rule should not have any significant impact on economic development should occur.

Rule # 1301:7-9-07

Environmental Rule Adoption/Amendment Form

Pursuant to Am. Sub. H.B. 106 of the 121st General Assembly, prior to adopting a rule or an amendment to a rule dealing with environmental protection, or containing a component dealing with environmental protection, a state agency shall:

(1) Consult with organizations that represent political subdivisions, environmental interests, business interests, and other persons affected by the proposed rule or amendment.

(2) Consider documentation relevant to the need for, the environmental benefits or consequences of, other benefits of, and the technological feasibility of the proposed rule or rule amendment.

(3) Specifically identify whether the proposed rule or rule amendment is being adopted or amended to enable the state to obtain or maintain approval to administer and enforce a federal environmental law or to participate in a federal environmental program, whether the proposed rule or rule amendment is more stringent than its federal counterpart, and, if the proposed rule or rule amendment is more stringent, the rationale for not incorporating its federal counterpart.

(4) Include with the proposed rule or rule amendment and rule summary and fiscal analysis required to be filed with the Joint Committee on Agency Rule Review information relevant to the previously listed requirements.

(A) Were organizations that represent political subdivisions, environmental interests, business interests, and other persons affected by the proposed rule or amendment consulted?

x
Yes

_____
No

If YES, please list each contact.
See Attachment A

If NO, please explain why affected organizations were not contacted.

(B) Was documentation that is relevant to the need for, the environmental benefits or consequences of, other benefits of, and the technological feasibility of the proposed rule or amendment considered?

X
Yes

_____
No

Rule # 1301:7-9-07

If YES, please list the information provided and attach a copy of each piece of documentation to this form (A SUMMARY OR INDEX MAY BE ATTACHED IN LIEU OF THE ACTUAL DOCUMENTATION).
See Attachment B.

If NO, please indicate the reasons for not providing the information.

(C) Is the proposed rule or rule amendment being adopted or amended to enable the state to obtain or maintain approval to administer and enforce a federal environmental law or to participate in a federal environmental program?

X
Yes

_____
No

If YES, is the proposed rule or rule amendment more stringent than its federal counterpart?

X
Yes

_____
No

If YES, what is the rationale for not incorporating the federal counterpart?

This rule revision imposes additional restrictions on leak detection systems for UST systems beyond what is required in federal regulations. UST systems using soil gas monitoring or ground water monitoring will have to replace these systems with other valid methods of leak detection (these leak detection systems are allowed federal regulations). These methods detect the presence of a release by sampling environmental media, and are being disallowed fo9r the following reasons: they are technically complex and require a sophisticated owner or operator to be used properly, contamination is not detected until after the release has had a chance to become extensive, and proper use makes these systems more expensive than more commonly used leak detection systems. As many owners and operators mis-report installed observation wells as "ground water monitoring systems" it is not possible to say exactly how many systems may be impacted, evidence from field compliance reports are that these systems are very rare. Any owner or operator of a UST system may apply for a variance from the Fire Marshal to continue to use these systems if they can demonstrate that they are being used properly and are appropriate for the UST system.

The elimination of monthly monitoring as a substitute for annual tightness testing is also more stringent that federal requirements. This change is justified by the fact that piping systems are the most likely source of releases on UST systems, and that the agency has concerns about the long term integrity of many types of piping in common use in Ohio, justified by USEPA and state studies.

(D) If this is a rule amendment that is being adopted under a state statute that establishes standards with which the amendment is to comply, is the proposed rule amendment more stringent than the rule that it is proposing to amend?

X
Yes

_____
No

If YES, please explain why?

In addition to the phasing out of soil gas and ground water vapor monitoring, two additional requirements are proposed that are more stringent than the rule this is proposing to amend. The requirement for inventory control for UST systems dispensing motor or aviation fuel was added to make the BUSTR regulations consistent with the "Ohio Fire Code", which contains a similar requirement. The elimination of monthly monitoring as a substitute for annual tightness testing is also more stringent that previous rule requirements. The requirement for a Certified UST Installer to supervise all tightness testing has been added, the current rule requires this for most tightness testing scenarios but not for tests associated with three year maintenance checks of pressurized piping or those done for suspected release investigations.

ACTION: Refiled

DATE: 01/14/2005 3:15 PM

First Name	Last Name	Company	Address	City	State
John	Smith	Adjutant General	2825 W. Granville Road	Columbus	OH
Michael	Darr	BP Oil	4850 E 49th St. MBC1-L	Cuyahoga Hts	OH
Harry	Barles	County Commissioners Assoc.	37 W. Broad St., Suite 650	Columbus	OH
Reginald	Wilkinson	Dept of Rehabilitation & Corrections	1050 Freeway Drive North	Columbus	OH
John	Gordon	Englefield Oil Co.	447 James Parkway	Newark	OH
Amy	Yersavich	Environmental Protection Agy.	122 S. Front St., Lazarus Gov. Ctr.	Columbus	OH
Bruce	Cornett	Green Environmental Coalition	P.O. Box 266	Yellow Springs	OH
Kevin	Miller	Hartley Co., The	P.O. Box 160	Cambridge	OH
Tom	Conti	Holland Oil Co.	E. Talmadge	Akron	OH
William	Thompson	Industrial Commission of Ohio	30 W. Spring Street	Columbus	OH
Thomas P.	Charles	Inspector General, Office of	30 East Broad St., 18th Floor	Columbus	OH
Laura	Lyden	Lyden Co. (Tru North LLC)	3711 LeHarps Road	Youngstown	OH
Ron	Lykins	Lykins Oil Co.	5300 DuPont Circle Suite C	Milford	OH
Angela	Brown	Marathon/Ashland, LLC	539 S. Main Street	Findlay	OH
Samuel	Speck	Ohio Dept of Natural Resources	Fountain Square	Columbus	OH
David L.	Scheffler	Ohio Chamber of Commerce	230 E Towne Street, Box 15159	Columbus	OH
J. Nick	Baird	Ohio Department of Health	246 N.High St. P.O. Box 118	Columbus	OH
Michael	Hogan	Ohio Department of Mental Health	30 East Broad St., 8th Floor	Columbus	OH
Kenneth L.	Morckel	Ohio Dept of Public Safety	77 S. High Street, 30th Floor	Columbus	OH
Geno	Natalucci-Persichetti	Ohio Dept of Youth Services	51 N. High Street	Columbus	OH
Kenneth W.	Richey	Ohio Dept. of MR/DD	30 East Broad St., 12th Floor	Columbus	OH
Vicki	Deisner	Ohio Environmental Council	1207 Grandview Ave Suite 201	Columbus	OH
Stan	Crosley	Ohio Fire Chiefs	131 Dillmont Drive	Columbus	OH
Robert	Weitzel	Ohio Fire Chiefs Code Committee	131 Dillmont Drive	Columbus	OH
Susan J.	Cave	Ohio Municipal League	175 S. Third Street Suite 510	Columbus	OH
Daryl	Grau	Ohio Petroleum Contractors Assn.	112 North Street	Wilder	KY
Terry	Fleming	Ohio Petroleum Council	88 East Broad St. Suite 1460	Columbus	OH

Jennifer	Rhoades	Ohio Petroleum Marketers Association, Inc.	4242 Tuller Road, PO Box 490	Dublin	OH
Maurice	Helou	Ohio Petroleum Retailers & Repair Assn.	5615 Mayfield Road	Lyndhurst	OH
Jeff	Skelding	Ohio Sierra Club	145 N.High St. Suite 409	Columbus	OH
Roger	Sanson	Ohio State Firefighters	42 E Gay St. Suite 1212	Columbus	OH
Michael	Cochran	Ohio Township Association	5969 E. Livingston Ave Suite110	Columbus	OH
Richard	Morgan	Petroleum Equip.Inst.	3124 W. 142nd Street	Cleveland	OH
James J.	Leo	PUSTRCB	P.O.Box 163188	Columbus	OH
Ed	Henke	Shell Oil Products US	Wylmoor Drive	Norcross	GA
		Speedway/SuperAmerica LLC	500 Speedway Drive, PO Box 1500	Enon	OH
Scott	Heiser	Speedway/SuperAmerica LLC	500 Speedway Drive, PO Box 1500	Enon	OH
Michael	Byrne	Sun Company	`	Columbus	OH
Don	Smith	Swifty Oil	P.O. Box 1002	Seymour	IN
Denis	Fitch	United Dairy Farmers	3955 Montgomery	Cincinnati	OH
Robert	Hopkins, Sr.	Unocal	2531 Tiller Lane	Columbus	OH
Dolores	Sieja	US EPA Region 5	77 W.Jackson Blvd DRU 7J	Chicago	IL
Andy	Tschampa	US EPA Region 5	77 W.Jackson Blvd DRU 7J	Chicago	IL

Cost analysis of Compliance with Rule 1301:7-9-07 of the Administrative Code

I. There are several leak detection options available to the owner or operator based upon their specific circumstances. The option selected may have a significant impact on the cost of conducting leak detection. The cost analysis provided below summarizes the costs associated with various options for leak detection available to the owner or operator of an UST system.

The installation cost for a leak detection system on an UST ranges from $3,525 to $6,240. These costs represent the one time installation cost of the leak detection equipment. The operation and maintenance cost of these systems are minimal and are difficult to quantify due to the automated nature of these methods. As an alternative to the installation of leak detection equipment, BUSTR currently allows the use of statistical inventory reconciliation at an annual cost of approximately $173.

The cost of leak detection for underground piping varies depending on the nature of the piping used in the system. For piping that carries product under pressure, the costs include $1,208 for the installation of monitoring equipment and $222 for annual tightness testing on the piping. As an alternative to pressure piping, owners and operators can use suction piping. Suction piping is monitored through the same general leak detection methods for the associated UST at a combined cost of between $3,525 to $6,240 for the entire US system. An additional cost associated with suction piping is $222 for tightness testing every thirty-six (36) months. Statistical inventory reconciliation is available as a leak detection method on suction piping in conjunction with the UST. The annual cost of statistical inventory reconciliation for the combined UST system is $173.

In addition, the costs associated with the installation, upgrade or repair of the leak detection system include approximately $954 for testing, permitting and supervision ($982 for hazardous substance UST systems). The testing, permitting and supervision costs for installing or upgrading a leak detection system are included in the testing, permitting and supervision costs for either the installation or upgrade of an UST system. Therefore, if an owner or operator installs or upgrades an UST system in accordance with Rule 1301:7-9-06 of the Administrative Code at the same time a leak detection system is installed or upgraded, there are no additional testing, permitting or supervisions costs.

The information relied upon in the preparation of this fiscal analysis was obtained from consultants and contractors who submitted copies of actual bids for work relating to the installation and upgrade of UST systems and leak detection systems. Some costs are specifically addressed in the BUSTR rules such as permit, inspection and application fees. In addition, owners, operators and equipment suppliers provided cost information related to the installation and upgrade of UST systems and leak detection systems. A detailed breakdown of these costs follows:

A. Average cost of leak detection for UST's (all options available):

Automatic tank gauging:	$5,500·
Interstitial monitoring:	$6,500·
Other BUSTR approved methods (per year):	$ 175··

B. Average cost of leak detection for pressurized underground piping (all options available):

Leak detection for pressure piping:	$1,200
Annual line tightness test.	$ 250

C. Average cost of leak detection for suction underground piping (all options available):···

Line tightness test every thirty-six (36) months:	$ 250

D. Costs associated with the installation and maintenance of leak detection (each cost required):

Final tightness test after installation or maintenance:	$ 350
Permits	$ 35
Certified inspector on site:	$ 130
Certified installer on site:	$ 460
Purchase of professional reference standards:	$ 30
Total:	$ 1,005

· The costs associated with these methods of leak detection for both the UST and the associated underground piping are one time installation costs. The leak detection equipment, once installed, should have minimum operational costs.

·· Currently BUSTR has approved only statistical inventory reconciliation as an alternative leak Detection method. The cost indicated above is the annual cost for this method.

··· The rule also provides that no additional leak detection is required for suction piping if the piping is properly designed to allow product to flow back into the UST in the event of a loss in suction. Therefore, if the piping run is properly designed there will be no additional costs imposed for leak detection on the piping.

II. The Fire Marshal, in adopting this rule, relied upon the following documents and technical standards:

40 C.F.R. 280.40	General Requirements for all UST systems.
40 C.F.R. 280.41	Requirements for petroleum UST systems.
40 C.F.R. 280.42	Requirements for hazardous substance UST systems.
40 C.F.R. 280.43	Methods of release detection for tanks.
40 C.F.R. 280.44	Methods of release detection for piping.
40 C.F.R 280.45	Release detection recordkeeping.

American Petroleum Institute Publication 1621-01