SUPPORTING STATEMENT FOR
EPA INFORMATION COLLECTION REQUEST NUMBER [2650.01]
"GATHERING DATA ON RESULTS OF NEWLY REQUIRED ANNUAL AND TRIENNIAL TESTING TO EVALUATE THE IMPACTS OF U.S. EPA'S 2015 FEDERAL UNDERGROUND STORAGE TANK REGULATION"

2021

ICR SUPPORTING STATEMENT
Part B

TABLE OF CONTENTS

Section 1. Survey Objectives, Key Variables, and Other Preliminaries

1(a) Survey Objectives

The objective of the survey is to examine whether the inclusion of new testing requirements in the 2015 UST regulation impacted the performance of required release prevention equipment. EPA expects that requiring UST owners/operators periodically demonstrate passing test results for their equipment will lead to improved component performance by incentivizing UST owners and operators to regularly monitor and maintain equipment, and upgrade failing equipment promptly to avoid paying for multiple rounds of testing to achieve a passing result. EPA hopes the new requirements to show a passing test result periodically will lead to improved component performance and fewer fuel releases from UST systems.

EPA intends to test this expectation by collecting data to compare the average number of tests[1] needed to achieve a passing test result (henceforth referred to as "passing rate") over a six-year period for these newly required compliance tests: spill containment liquid tightness testing, containment sump liquid tightness testing (for containment sumps of single-wall construction used for interstitial monitoring of piping), overfill equipment inspections, and two requirements that comprise annual leak detection equipment testing. The number of tests required to achieve a passing rate will be evaluated across either two separate three-year periods representing a baseline and a follow-on testing period, or for each year. The former approach will apply to the three requirements for which owners and operators must have a passing result every three years. The latter applies to the two types of annual leak detection equipment testing requirement. EPA hopes that collecting this information will inform programmatic practices that can help achieve human health and environment goals as described in Part A.

EPA will use the information collected with the authority of this ICR to learn about the effectiveness of UST testing requirements, which could influence future EPA regulations, policy, guidance, and UST facility practices. EPA could also share this information with state partners who generally are responsible for implementing the federal UST regulations; many of these states have different environmental challenges that impact UST operations and legislative flexibility or requirements in how they implement their UST programs. States responsible for implementing the federal regulation must do so at least as stringently as the federal regulation, but many have requirements more stringent than the federal regulation, or have requirements beginning at a later date than other states. Sharing this information will help states implement their programs better, which will help EPA execute national UST program goals and better protect human health and the environment.

[1] Overfill inspections are technically not referred to as "tests" because the only way to *test* the overfill equipment when installed in an UST system could result in an actual release of fuel if the equipment failed the test. So the federal UST regulation requires overfill equipment be *inspected* and found meet several criteria (moving parts function properly, equipment is in proper position, no other impediments to working properly) to be in compliance. But for shorthand, the use of the term "test" throughout this document will refer to equipment that is tested, as well as overfill equipment that it is inspected.

1(b) Key Variables

The key variables examined in this information collection request are the passing rates by state, over two three-year testing periods, for four categories of UST compliance tests: spill containment liquid tightness, containment sump liquid tightness (for containment sumps of single-wall construction used for interstitial monitoring of piping), overfill equipment inspections, and annual leak detection.

If every component tested passed the compliance inspection the first test performed, we would expect to see a passing rate of 100%. However, if components fail multiple tests before passing, the rate would be lower. For example, if a given facility fails the spill containment liquid tightness test three times before achieving a passing test the fourth time, we would see a passing rate of 25%. Given we are collecting data at the state level, we can calculate passing rates using the total number of tests performed and the total number of tests with passing results for each category of test, in each state, during a given time period.

Over the two three-year periods examined in this collection, we expect to see the passing rate increase from the first, or baseline, testing period to the second for each of the three categories for which a passing result is required at least every three years. Similarly, we expect to see the passing rate for the two types of tests that comprise the annual leak detection equipment testing requirement to increase from the initial years to the follow-on years. UST owner/operators are incentivized to improve their management and maintenance practices in order to avoid paying UST compliance testing companies to perform multiple tests. Owners/operators also want to avoid the environmental liability and cost of a release event due to faulty equipment. If the requirement to report a passing compliance test each three-year period results in better equipment management practices, we would expect to see fewer tests performed before a passing test result is achieved. We anticipate similar increases in performance for annual leak detection equipment testing requirements.

1(c) Statistical Approach

EPA plans to reach out to each of the estimated 119 UST compliance testing companies operating within 15 states. Since we will be reaching out to all contacts in our sample frame, we do not require a statistical approach to sampling. We do recognize that not all contacts will respond to the survey and we have developed plans to minimize non-response, adjust for the impact non-response has on our data collection, and test for non-response bias. See sections 4.b. and 5.a for descriptions of our approach to addressing non-response.

We plan to use the contractor Environmental Management Systems (EMS) to design the survey instrument, collect the data, and compile it into a database.

1 (d) Feasibility

To assess the feasibility of the study, EPA tasked the contractor EMS to conduct a survey of fewer than 9 UST testing companies from the sampling frame of respondents (see Appendix A). The survey included questions about data storage practices and the feasibility of sharing desired data with EPA. Respondent answers to the survey have informed the responses below.

What obstacles might the respondent face in completing the survey? For example, might the respondent have trouble accessing data? Is the data in the form you have requested? What steps have you taken to facilitate response?

EPA anticipates two main obstacles that respondents might face in completing the survey. First, some companies may have difficulty providing aggregated data, depending on their data storage practices. EPA conducted a survey of fewer than 9 UST compliance testing companies to learn about their data storage practices and ability to report the desired data (The questions from that survey are found in Appendix A). EPA found that most companies store data in a centralized and easily queried database; however, a small number of companies store the information in individual reports that are not easily aggregated into a high-level report. This impacts the accessibility of the data to the UST testing company and may increase the burden of combining and reporting the average passing rate for all tests conducted within the six-year period. EPA found that 7 of 8 companies responded that they were easily able to access the requested data and provide in a report form. In addition, we anticipate some smaller respondent entities having limited available staff time to assist with the request, even when data is stored in an easily queried database format.

EPA will address these challenges in two ways. For companies that have more difficulty accessing the requested data or aggregating their data or databases into a format that EPA requests, EPA will direct the contractor to design and build an online survey tool that will allow respondents the opportunity, if they so choose, to provide requested data as a response to specific questions in a survey. They may choose to use this option if they are unable or prefer not to provide data in a database format. Second, EPA will have the contractor address the limited staff time of smaller respondent entities by providing contract funding and deliverables specifically directing the contractor to spend time facilitating data response with companies who wish to participate, but face labor-related challenges to doing so.

Are sufficient funds available to complete the survey as designed? If not, how will you secure additional funding? What survey design changes might you need to make in the absence of funds? How might these changes affect the survey results?

Sufficient funds are available through the Office of Underground Storage Tanks through the 3-year information collection period. The project will be funded 100% in Environmental Programs and Management (EPM) funds for the entire period of the collection.

Will the survey results be ready in time to serve your program's decision-making needs? Without reproducing the schedule you furnished in Part A, confirm that the survey results will be available for timely use in program office decisions.

We anticipate data collection beginning in early 2022, with initial results in mid-2022. This timeline allows EPA to share results with other states whose initial compliance testing deadlines are later in 2022 or beyond. In addition, EPA plans to use the results in an ongoing capacity to better understand the effectiveness of current UST testing regulatory requirements, which could

inform the need for more targeted and effective future EPA regulations, policy, guidance, and UST facility practices.

Section 2. Survey Design

2(a) Target Population and Coverage

To evaluate the effectiveness of the four UST compliance tests examined in this information collection, data will be gathered from a census of the estimated 119 UST compliance testing companies operating within 15 states. There is no master list of UST compliance testing companies in operation. The list was developed by the EPA, with the assistance of a contractor (EMS) specifically looking to identify all known companies performing UST compliance testing in one of these states. While EPA expects that it is a comprehensive list, we recognize there may be a small number of companies unintentionally excluded and unknown to EPA or the contractor. The final report will include this note.

2(b) Sample Design

(i) Sampling Frame

We obtained the sampling frame from the work done by EMS in the initial setup phase of this data collection. EMS compiled a list of all of the companies that conducted UST compliance tests in the year 2020 in the 15 states within this information collection. EPA then reviewed this list to verify that the companies identified offer compliance testing services as part of their normal business practices. EPA had directed the contractor to err on the side of including a company on the initial collection if it appeared to have any work related to UST facilities, but many companies' only association with UST facilities might be with work unrelated to compliance testing. For example, they might perform only cleanups of past fuel releases, or they might only perform repairs of UST equipment. EPA's manual review of the company list provided by the contractor attempted to eliminate from the census list any such companies.

This manual review of the company list will have been completed approximately one year prior to the time the information collection begins, but we anticipate that it will still be an accurate representation of the universe of UST compliance testing companies. The list is non-duplicative as designed by the contractor, avoiding double-counting of companies that operate in more than one state. The final list as determined by EPA includes 119 UST compliance testing companies operating in the 15 states and territories that are included in this information collection. Because every system is required by federal statue to have a passing test result, and we believe it extremely uncommon for owners to perform their own testing, we believe that the list of every company operating in the 15 states will be fully representative of the respondents.

(ii) Sample Size

The proposed sample size for this information collection is a census of the 119 UST compliance testing companies operating in 15 states.

(iii) Stratification Variables

With the current study design that attempts to survey a census of compliance testing companies, we do not plan to stratify respondents.

(iv) Sampling Method

Since data will be collected from a census of 119 companies, we do not plan to sample within the sample frame.

(v) Multi-Stage Sampling

We do not plan to use multi-stage sampling for this collection. Our contractor has already compiled a list of UST compliance testing companies operating in 15 states during the initial setup phase of the study.

2(c) Precision Requirements

(i) Precision Targets

The primary statistic of interest in this study is the number of tests needed to achieve a successful result for each of the four categories of new requirements, in the initial baseline testing and again in the subsequent round of tests. This statistic will follow a geometric distribution which is commonly used to model the number of tests (or "failures") before a "success." The geometric distribution is a discrete distribution with support $k = \{0,1,2,\ldots\}$, mean of (1-p)/p, and variance $(1-p)/p^2$, where k is the number of failed trials before a success and p is the probability of passing a given test.

The typical approach to determine the minimum sample size that is sufficient to achieve a desired level of precision derives the result from an analytical expression for the confidence limits of the distribution assumed for the statistic. The most common examples are the normal and binomial distributions. There is no closed form expression for the confidence limits of the geometric distribution, however, so instead we rely on a bootstrap simulation to determine the expected precision of our estimate for a given sample size. Bootstrapping is a nonparametric simulation approach to characterizing the sampling distribution of a population statistic. In this case we are interested in the precision of our estimated passing rate p given our sample size and our expectations of p.

Since EPA will be conducting a census of all 119 testing companies in the study area, the sample size will be determined by the response rate. EPA expects a response rate of 50% based on three elements: the results of previous EPA censuses; prior EPA engagements with the underground storage tanks industry on other research or outreach efforts; and EPA's survey of 9 companies in 2020 related to the effort in this data collection.[2] However, our simulation will also test a lower response rate to ensure sufficient precision under conservative assumptions.

We base our expectation of p on data reported by testing companies which reveal a range of passing rates from 41% (Crompco testing of 10,481 spill buckets) to 79% (Tanknology testing of

[2] For example, EPA's annual survey of anaerobic digestion facilities yielded response rates of 74%, 68%, and 56% in the years 2017-2019.

containment sumps).[3] We will perform the precision target analysis by calculating the expected margin of error for selected response rates of r = {25%, 50%} and passing rates of p = {40%, 60%, 80%} with 95% percent confidence.

The bootstrapping simulation algorithm includes the following steps:

1. Simulate data (the number of failures before passing) for the population by drawing 119 values from a geometric distribution with a mean value of $1/p$ and variance $(1-p)/p^2$.
2. Sample r*119 values with replacement from the simulated population data set (rounding r*119 to the nearest integer).
3. Calculate the average passing rate for the simulated sample p_i.
4. Repeat steps 2 and 3 10,000 times to generate a sampling distribution for p.
5. Use the following formula to calculate the margin of error $moe = z_\gamma \sqrt{\frac{\text{var}(p)}{r*119}}$, where z_γ is the percentile point of the standard normal distribution, in this case $z_{.95} = 1.96$[4].

Table B.1 shows the margin of error for each combination of response rate r and passing rate p used in the simulation. Even under the most conservative assumptions, the expected margin of error is less than two and a half percent with 95% confidence. Using our sample to estimate baseline and post-regulatory passing rates will allow us to detect differences of 5% or more with a high level of confidence (greater than 95%).

Table B.1 Expected margin of error

	p = 40%	p = 60%	p = 80%
r = 25%	2.3%	1.8%	1.5%
r = 50%	1.1%	1.0%	0.7%

(ii) Non-sampling error

We know that a substantial portion of those contacted will not respond or will choose not to participate due to the burden of response, challenges with aggregating data from data management systems to report average data, and limited staff time. However, this effect may be somewhat offset by consequentiality, if respondents believe their participation might influence regulatory outcomes. UST compliance testing companies have a significant interest in the impacts of the testing requirements, and may therefore be more likely to participate.

Although UST compliance testing companies are not required by the federal UST regulation to keep or retain records, we believe the vast majority do as part of standard business practices. However, systematic bias might arise if companies that do not retain records, or that have

[3] From testing company internal data: Crompco data referenced in Utah Tank News, Fall 2005; Tanknology information presented at 2012 National Tanks Conference session, "What Can We Learn From 10 Years of UST System Testing Data?".

[4] via the central limit theorem, the draws of p will be approximately normally distributed so we can rely on the percentiles of the t distribution to estimate the margin of error.

difficulty accessing their records, have a tendency to work with operators that have a different overall passing rate.

Other potential sources of bias include the possibility of owners/operators conducting and reporting compliance tests themselves. While this is technically permissible, EPA does not have evidence that owners/operators typically choose to perform these tests themselves. Additionally, while we believe our list of 119 UST compliance testing companies is comprehensive, it may not include companies that did not exist when the list was developed in 2020 or companies that do not have websites.

To address bias caused if those companies which choose not to respond are similar in some way, we plan to collect additional information about company size and their operations so that we may adjust the weighting of results during the analysis phase of the study.

2(d) Questionnaire Design

Be sure to append a copy of the questionnaire to Part B.

Data collection templates, which will be transformed into a questionnaire by the contractor, can be found in Appendix B, Tables 1 and 2. The tables represent the four categories of UST compliance tests that will be examined as part of this information collection: spill containment liquid tightness (spill prevention), containment sump liquid tightness (for containment sumps of single-wall construction used for interstitial monitoring of piping), overfill equipment inspections, and annual leak detection (two types of tests).

EPA will direct the contractor to ask questions using a script. Each question will specifically correlate with (or answer) one of the boxes on the template in Tables 1 and 2. The questionnaire will be developed by a contractor but EPA will not put a contract into place until after ICR approval. The questionnaire will not ask any new questions about data that are not already described in this document and listed on Tables 1 and 2.

The requested data and correlating questions from Table 1 collect information about the EPA requirements that must be completed at least once every three years: spill containment liquid tightness, containment sump liquid tightness (for containment sumps of single-wall construction used for interstitial monitoring of piping), and overfill equipment inspections. Each of those requirements fills one general column on the data table. The first two requirements are each able to be tested three different ways; an owner or operator simply needs to achieve a passing test result via one of those methods to meet the EPA requirement. The questions ask for the total number of each type of test performed, and the total number of passing tests results achieved for each type of test. We also ask for the total, combined results for the tests and passes for each requirement – which should act as a check on the validity of the results received for each individual testing type, as they should add up to the same number of tests and passes as is reported in the total section. The third column asks for data about the overfill prevention requirement. Unlike the first two requirements, this requirement does not have different test types – it simply has different components that might be installed that must be tested. Those sub-columns are identified in the Table 1 in a similar fashion to the first two requirements and their sub-columns that identify different test types for the same components.

For each of these three requirements that must be met every three years, we ask each of the questions in a way so they may be properly attributed to one of two time periods: tests conducted between (2015 to December 31, 2018), or tests conducted in 2019 or more recently. Those periods are represented as rows 3 and 4 and rows 5 and 6, respectively, in Table 1.

The requested data and correlating questions we will ask about in Table 2 collect information about required testing of leak detection equipment for which owners must achieve a passing result at least annually. This requirement includes two different tests, which are identified as the columns in Table 2: Line Leak Detectors, and Interstitial Sensors. The questions will ask about specific results for each of those types of tests, for each year from 2015 to 2021, and will correspond to the correct column and the appropriate year in which the tests were performed.

EPA will also ask the contractor to include several follow-up questions that will allow EPA to assess the representation of the ultimate pool of respondents:

- Customer universe: What does the universe of companies you work for look like?
    - For how many customers (UST owners/operators) do you provide testing and inspection servicing annually?
    - How many facilities does your average customer operate? At those facilities, what is the average number of UST systems in operation?
    - Do any of your customers employ environmental compliance staff?
- How many employees perform compliance testing?
- In which states do you perform compliance testing? Please list them even if they are not part of the 17 states included in our collection.

Section 3. Pretests and Pilot Tests

To pretest the collection instrument, we plan to share it with two of the largest UST compliance testing companies, Tanknology and Crompco. We will also ask 7 of the respondents of our initial setup survey to participate in the pretest and expect to see participation from 3-5 of these smaller companies. Together, we believe that this pretest will be a representative sample of the UST testing company population from large to small. We will solicit their feedback on the survey instrument prior to sharing it with the respondent entities selected and make adjustments to the collection instrument if necessary.

Section 4. Collection Methods and Follow-Up

4(a) Collection Methods

To collect data for this information collection, EPA will work through a contractor, who will be tasked with directly contacting the respondents and compiling the data collected into a database deliverable. EPA will work with the contractor to develop the survey instrument and contact the respondent companies. The contractor will contact these companies initially by email and follow up with any non-responding entities with a second email and subsequent phone call. The contractor will explain the information collection objectives to the respondents and request their voluntary participation. The contractor will then work with the companies to submit the requested data electronically, either by sending a spreadsheet based on the collection template (see Appendix B) pulled from the company database, or by filling out the survey instrument (both options result in the same information shared, while allowing the companies to choose the less burdensome method for sharing information).

4(b) Survey Response and Follow-up

The target response rate for the entities contacted is 50%. We understand that some companies will not be able to participate based on the obstacles explained in 1(d). We plan to evaluate the actual response rate by tracking the companies selected to be contacted as part of the initial outreach by the contractor, and tracking those that participated in the collection. To gather missing survey data, we plan to reach out to the selected companies multiple times to seek participation following a pre-arranged follow-up plan through specific deliverables and timeframes for the contractor. We anticipate gathering data from enough total tests performed to ensure statistical robustness of information collected.

To increase the response rate, we plan to offer potential respondents a summary of the survey results and a certificate of participation from EPA to thank them for their efforts.

Section 5. Analyzing and Reporting Survey Results

5(a) Data Preparation

The contractor will be tasked with compiling the data collected into a database that will be shared with EPA. The contractor will perform quality control measures to ensure that the data is accurate. We don't expect item non-response, but will ask the contractor to follow up on any missing data items.

5(b) Analysis

Once the survey data have been checked for errors, cleaned, and assembled into a data file, they will be analyzed using statistical analysis techniques. EPA plans to conduct three types of tests to analyze the impact of the new testing requirements on equipment performance. The same statistical analysis will be performed on passing rates for all four categories of the newly required compliance tests. The first is an aggregated comparison of passing rates that pools data on passing rates from all testing companies and all states. The second repeats the comparison of passing rates for each state to search for systematic differences between states. We may expect to find differences among states because of factors such as differences in climates that may contribute to more corrosion of equipment in some states that others, differences in levels of engagement between state UST implementing agencies and their constituents leading to differences in operator attention to their UST equipment, or differences in ownership trends across states that result in different capabilities to employ compliance managers. The third test will utilize linear regression to test for the influence of other factors on testing rates such as size of the testing company and number of UST facilities serviced. The regression equation may also include indicator variables for states as another check on systematic differences across them. We describe each of the three statistical analyses in detail below.

(i) *Aggregated comparison of passing rates*

EPA will use a two-proportion z-test to compare the aggregated passing rate in the baseline testing period to the aggregated passing rate in the subsequent round of testing. The total number of tests performed by all testing companies will be large enough to justify the normal approximation required to rely on a z-test.

Because we expect the second round of passing rates p_1 to be greater than that from the baseline testing period p_0 we will use a one-sided hypothesis test with a null H_0: p_1-$p_0 \leq 0$ and the alternative H_1: p_1-$p_0 > 0$.

The z-test statistic is $z = \frac{p_0 - p_1}{SE}$. To find the standard error *SE,* first find the pooled proportion $p = \frac{p_0 n_0 + p_1 n_1}{n_0 + n_1}$, where n_0 and n_1 are the number of tests performed in the baseline and second round of testing, respectively. Then, $SE = \sqrt{p(1-p)\left(\frac{1}{n_0} + \frac{1}{n_0}\right)}$. The resulting z-statistic will then be compared to critical values for standard confidence levels for a one-sided hypothesis test, i.e.,

$\alpha = \{0.01, 0.05, 0.1\}$. Compliance tests for which we find a z-statistic that is greater than the critical values will have demonstrated a statistically significant impact on compliance, with a level of confidence corresponding to the value of α.

(ii) *Comparison of passing rates in each state*

To compare passing rates in each of the 15 states, the data will be subdivided by state and the z-test described above will be repeated using the number of tests performed and passing rates for each state. Even after dividing the data by state, we expect the number of tests performed to be large enough to justify the z-test approximation.

(iii) *Linear regression*

Using supplemental data provided by the testing facilities, EPA will use linear regression to test for the influence of other factors on the passing rate. We will use the statistical package Stata and the command *reg* to perform our analysis. The unit of observation will be testing company-state combination so that each row of data will contain passing rates in a given state submitted by a single testing company, along with the associated supplemental data.

The regression equation will take the form

$$y_i = C + \sum_{k=1}^{K} \beta_k x_{ik} + \varepsilon_i ,$$

where y_i = second round passing rate minus baseline passing rate for testing company-state combination i
C = estimated regression constant
β_k = estimated coefficient for variable k
x_{ik} = value for variable k from testing company-state combination i
ε_i = error for observation i, assumed to be normally distributed and centered around zero.

The constant C represents the conditional mean of the change in overall passing rate after controlling for factors x_k. The sign and statistical significance of the coefficients β_k will indicate which, if any, additional factors influenced the overall passing rate and whether they had a positive or negative influence.

5(c) Reporting Results

Agency personnel directly involved with the information collection will have direct access to the database deliverable from the contractor. Others may request access from the Office of Underground Storage Tanks. The database will be managed internally by the agency personnel involved with the information collection.

EPA plans to share summary findings with the respondents that participate in the information collection. In addition, summary reports, including plain language explanation of study design and results will be shared with state implementing agencies. Summary reports and plain-language summary may also be shared with industry, regulatory partners, and the regulated universe through the Office of Underground Storage Tanks website.

APPENDICES TO PART B

Appendix A

EMS Survey Questions – Before/After Study

Survey responses included 8 total companies.

1. Do you offer:
   - € Compliance testing and inspection
   - € Equipment sales,
   - € Installation,
   - € Preventative maintenance,
   - € Emergency repairs,
   - € Compatibility upgrades, consulting,
   - € Other UST-related services. Please note which services _____.
2. How many employees does your company have that performs compliance testing or servicing nationally? (Note: this is different than the total number of employees that may be doing other business tasks). For this count, please specify how many are company employees and how many are contractors/sub-contractors.
3. Customer universe: What does the universe of companies you work for look like?
   a. For how many customers (UST owners/operators) do you provide testing and inspection servicing annually?
   b. How many facilities does your average customer operate? At those facilities, what is the average number of UST systems in operation?
   c. Do any of your customers employ environmental compliance staff?
4. Do you perform the following tests and keep and track records of compliance testing or inspection requirements?
   a. Sump liquid tightness testing (required at least every 3 years)
   b. Spill prevention liquid tightness testing (required at least every 3 years)
   c. Overfill prevention equipment inspection (required at least every 3 years)
   d. Leak detection equipment testing (required annually)
5. Do you offer other compliance testing and inspection services? Which tests/inspections are most requested?
6. How do you store and use any data you collect for compliance and inspection testing results? (Ask this question for each type of tests performed by company)
   For example:
   a. Electronically or on paper?
   b. Centrally, or across multiple locations?
7. Do you give information only to your facilities, or does your jurisdiction require reporting of all services performed, all passing tests, or nothing at all?
8. Do you provide direct electronic reporting to states and tribes? If so, do you work with a third party to help process the data?
9. Does your company have the technical ability and legal clearance to share information on the compliance tests and inspections you have conducted and those testing results (if customer information is redacted to protect the customer privacy)?
10. A subset of the data that EPA is interested in collecting is additional information on containment sump testing (see question 4, part a), comparing initial and subsequent test results from the exact same sample population of sumps at UST systems. For this data set, each UST sump must be individually identifiable. Would your company be able to provide facility- and sump-specific information from each test location where sump tests are performed?
11. Does your company have the technical ability to share electronic data if you chose to participate in a voluntary research partnership?

Appendix B

Table 1: Example matrix of triennially-required testing and inspection data to be collected

Voluntary Submission: Compliance Testing Results Reporting for Three Release Prevention Categories

State-Level Testing Results for State of:_____

Results taken from ___ (insert # of unique facilities at which you performed these tests) in this state

Directions: Fill out the form with your compliance testing results. T=Tested; P= Passed Test or Inspection. Please see notes, below.*

Release Prevention Categories (columns, to right)		**Spill Prevention**			**Containment Sumps**			**Overfill Prevention**				**Line**
Legend: T=Tested or Inspected P= Passed Test or Inspection.	**Component Type ****	*n/a*	*n/a*	*n/a*	*n/a*	*n/a*	*n/a*	*Flapper valves*	*Ball Floats*	*Alarms*	*Other*	*1*
Reporting Period (rows, below)	**Test type***** (columns, to right)	*Liquid (PEI RP1200)*	*Vacuum (PEI RP1200)*	*Alternative test procedures*	*High liquid level/ standard tests (PEI RP1200)*	*Low liquid level tests (PEI RP1200 or EPA/state procedure)*	*Alternative test procedures*	*n/a*	*n/a*	*n/a*	*n/a*	*2*
First round of testing (2015 to December 31, 2018)	Component or test type specific average, as appropriate	T: / P:	T: / P:	T: / P:	T: / P:	T: / P:	T: / P:	T: / P:	T: / P:	T: / P:	T: / P:	3
	Category Totals	T: / P:	Category Average Pass %		T: / P:	Category Average Pass %		T: / P:	Category Average Pass %			4
Follow-up testing (2019 and on)	Component or test type specific average, as appropriate	T: / P:	T: / P:	T: / P:	T: / P:	T: / P:	T: / P:	T: / P:	T: / P:	T: / P:	T: / P:	5
	Category Totals	T: / P:	Category Average Pass %		T: / P:	Category Average Pass %		T: / P:	Category Average Pass %			6

* Provide separate sheets for each state in which you operate. For each category, please report the total number of tests or inspections conducted and the total number of tests or inspections passing, as well as the percentage.

** Component type applies only to overfill prevention inspections. Report these subcategories only if able and interested. If not, you may report in the category averages on lines 4 and 6.

*** Test type applies only to spill prevention and containment sump testing. Report these subcategories only if able and interested. If not, you may report in the category averages on lines 4 and line 6.

Table 2: Example matrix of annually-required leak detection testing data to be collected

Voluntary Submission: Compliance Testing Results Reporting for Two Leak Detection Categories State-Level Testing Results for State of:_____ Results taken from ___ facilities									
*Directions: Fill out the form with your compliance testing results. Please see notes, below. Include information for all years you have available, no earlier than 2015.		**Leak Detection**							
Annual test year (below)	**Component tested** (columns, to right)	**Line Leak Detector** **Performance Standard: able to detect 3 gallon per hour simulated leak rate** **Types: includes mechanical (MLLD) and electronic (ELLD)****				**Interstitial Sensors** **Performance Standard: sensor is triggered** **Locations: tank, piping, within containment sumps**			
2021	Results	Tested:		Average Pass %		Tested:		Average Pass %	
		Passing:				Passing:			
2020	Results	Tested:		Average Pass %		Tested:		Average Pass %	
		Passing:				Passing:			
2019	Results	Tested:		Average Pass %		Tested:		Average Pass %	
		Passing:				Passing:			
2018	Results	Tested:		Average Pass %		Tested:		Average Pass %	
		Passing:				Passing:			
2017	Results	Tested:		Average Pass %		Tested:		Average Pass %	
		Passing:				Passing:			
2016	Results	Tested:		Average Pass %		Tested:		Average Pass %	
		Passing:				Passing:			
2015	Results	Tested:		Average Pass %		Tested:		Average Pass %	
		Passing:				Passing:			
* Provide separate sheets for each state in which you operate.									
** Please include results for both electronic and mechanical line leak detectors as a combined result.									