

SIRA (S2) Statistical Inventory Analysis, Version 5.2

STATISTICAL INVENTORY RECONCILIATION TEST METHOD (QUANTITATIVE)

Certification

- Leak rate of 0.1 gph with PD = 99.9% and PFA = 0.1%
- "If a method meets the requirement for detecting a leak rate of 0.1 gph, it will meet the requirement for 0.2 gph", according to "Standard Test Procedures for Evaluating Leak Detection Methods: Statistical Inventory Reconciliation Methods", EPA/530/UST-90/007, June 1990, Section 7.2.3, page 30.

Leak Threshold

- 0.05 gph. This leak threshold is for evaluation purposes only.
- A tank system should not be declared tight if the test result indicates a loss or gain that equals or exceeds the leak threshold calculated from the data set. This leak threshold may be different than the above leak threshold.

Applicability

- Gasoline, diesel.
- Other more viscous liquids may be tested after consultation with the vendor.

Tank Capacity

- Maximum of 36,000 gallons for single tank.
- Maximum of 36,000 gallons cumulative capacity for manifolded tank systems with no more than 3 tanks in system.

Data Requirement

- Minimum of 30 days of product level and flow through data.



Comments

- 50% of data sets evaluated were from manifolded tanks systems.
- 82 data sets were submitted for evaluation.
- All were analyzed with conclusive results.
- Median monthly throughput of tanks evaluated was 52,207 gallons.
- Median monthly throughput of separate manifolded tank system evaluation was 14,944 gallons. Leak rates of 0.05, 0.10, and 0.20 gph were used in evaluation.
- All manifolded tank system data sets evaluated were supplied by evaluator.
- A portion of the data sets drawn from the WRA Statistical Inventory Analysis Version 5.1 evaluation for tanks that were not manifolded, were provided by the vendor. Visit www.nwglde.org for more information.

