Wisconsin
Department of Commerce

Approval # 990053-U (Replaces 960033-U & 930085-U)

Safety & Buildings Division
201 West Washington Avenue
P.O. Box 2658
Madison, WI 53707

Wisconsin
Material Approval

Material: Autostik, Autostik II, and Autostik Junior
Continuous Automatic Tank Gauging Systems
& LS-Series Liquid Sensors

Manufacturer: EBW, Inc.
2814 McCracken Avenue
Muskegon, MI 49441

SCOPE OF EVALUATION

The 950 Series Autostik, 960 Series Autostik II, and 970 Series Autostik Junior Automatic Tank Gauging Systems manufactured by EBW, Inc., were evaluated as a means of monthly monitoring in accordance with **s. Comm 10.61 (4).** and as a means of tank tightness testing in accordance with **s. Comm 10.61 (3)** of the Wisconsin Flammable and Combustible Liquids Code. The 960 Series Autostik II, and 970 Series Autostik Junior were also evaluated as a means of continuous statistical leak detection for underground tanks in accordance with **s. Comm 10.61 (4).** The LS-3A (N.O. & N.C.), LS-7A, and LS-30A non-discriminating liquid sensors and LS-5A, LS-10A, LS-15A, LS-20A and LS-35A discriminating liquid sensors were evaluated as a means of interstitial monitoring in accordance with **s. Comm 10.61 (7)**.

DESCRIPTION AND USE

Autostik, Autostik II and Autostik Junior

The Autostik models consist of a console and keypad that can accommodate various types of probes and sensors. The standard ATG probe is a magnetostrictive probe that senses the liquid level. Each probe has temperature sensors that are used to correct the level for temperature effects.

The Autostik models may be used on tanks that contain gasoline, diesel, aviation fuel, #4 fuel oil, waste oil and some solvents.

When used for continuous monthly monitoring, the system determines when the tank is stable enough to begin data collection.

Liquid Sensors

The Autostik Liquid Sensors are designed to detect fluids in the interstitial space of double-wall tanks or piping and in sumps.

The LS-3A (Normally Open & Normally Closed), LS-7A, and LS-30A non-discriminating liquid sensors consist of a float switch that responds to a change in the level of any liquid. The LS-5A, LS-10A, LS-15A, LS-20A and LS-35A discriminating liquid sensors use a float switch to respond to all liquid level changes and have a selectively-permeable polymer strip that responds only to hydrocarbons. The Autostik console creates an audible and visual alarm and a printout identifying when a specific sensor has been activated.

TESTS AND RESULTS

Testing of all Autostik models for monthly monitoring and tank tightness testing was conducted in accordance with the Automatic Tank Gauging Systems protocol. When using leak declaration thresholds of 0.05 gph and 0.10 gph, the probabilities of detection of a leak of 0.10 and 0.20 gph, respectively, were certified to be within the 95-5 ranges required by the EPA protocols.

Testing of the Autostik II and Autostik Junior for continuous statistical leak detection was conducted in accordance with a modified version of the Automatic Tank Gauging Systems protocol. When using a leak declaration threshold of 0.07 gph, the probabilities of detection and false alarm were certified to be within the 95-5 ranges required by the EPA protocols.

Testing of the liquid sensors was conducted in accordance with a modified version of the Standard "Liquid-Phase Product Detectors" protocol.

LIMITATIONS OF APPROVAL

Tank Tightness Testing (Autostik, Autostik II and Autostik Junior)

When used for tank tightness testing, the Autostik, Autostik II and Autostik Junior are approved for use on tanks with a maximum capacity of 15, 000 gallons.

The tank shall be at least 95% full in accordance with **s. Comm 10.61 (3) (a)**.

The total time for data collection shall be at least 4 hours.

There shall be a stabilization period of at least 12 hours after adding a substantial amount of product to the tank and beginning a tightness test.

Standard Monthly Monitoring (Autostik, Autostik II and Autostik Junior)

When used for standard monthly monitoring, the Autostik is approved for use on tanks with a maximum capacity of 15, 000 gallons.

When used for standard monthly monitoring, the Autostik II and Autostik Junior are approved for use on tanks with a maximum capacity of 30, 000 gallons.

The tank shall be at least 10% full when using the Autostik and at least 30% full when using the Autostik II or Autostik Junior.

The total time for data collection shall be at least 4 hours.

There shall be a stabilization period of at least 2 hours after adding a substantial amount of product to the tank and beginning monthly monitoring.

Continuous Statistical Leak Detection (Autostik II and Autostik Junior, only)

The tank shall have a maximum capacity of 30,000 gallons.

The tank shall be at least 30% full during testing.

The monthly throughput for the tank shall be no greater than 100,000 gallons.

The leak declaration threshold shall be 0.07 gph.

Liquid Sensors

The Liquid Sensors shall be placed such that a release from any portion of the tank or piping will be detected.

All Products

Procedures specified by EBW shall be used to install, maintain and use all equipment.

This approval will be valid through December 31, 2004, unless manufacturing modifications are made to the product or a re-examination is deemed necessary by the department. The Wisconsin Material Approval Number must be provided when plans that include this product are submitted for review.

DISCLAIMER

The Department is in no way endorsing or advertising this product. This approval addresses only the specified applications for the product and does not waive any code requirement unless specified herein.

Reviewed by: _____

Approval Date: _____ By:_____

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