



# $\begin{array}{l} \textbf{EVO}^{\text{TM}} \hspace{0.1cm} \textbf{200} \hspace{0.1cm} \textbf{AND} \hspace{0.1cm} \textbf{EVO}^{\text{TM}} \hspace{0.1cm} \textbf{400} \\ \textbf{AUTOMATIC TANK GAUGES} \\ \textbf{BID SPECIFICATION} \end{array}$



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# **System Requirements**

# Description

These specifications are intended to provide information for prospective bidders in order to understand the requirements for providing and installing a monitoring system for aboveground and underground liquid storage tanks and the associated below-grade product piping.

These specifications shall describe precisely a continuous aboveground/underground storage tank and underground fuel line monitoring and leak detection system that performs in accordance with USEPA 40 CFR 280 Subpart D and shall meet the performance specifications and functions of the Franklin Fueling Systems EVO<sup>™</sup> 200 and EVO<sup>™</sup> 400 Fuel Management Systems.

The aboveground or underground storage tank monitoring system shall meet all applicable standards and regulatory agency requirements, including, but not limited to, the standards and requirements of the following:

- American National Standards Institute (ANSI)
- American Petroleum Institute (API)
- American Society for Testing and Materials (ASTM)
- Environmental Protection Agency (EPA)
- National Bureau of Standards (NBS)
- National Electric Code (NEC)
- National Fire Protection Agency (NFPA)
- Underwriters Laboratories, Inc. (UL)
- Canadian Underwriters Laboratories, Inc. (cUL)
- Underground Storage Tanks: Subpart D, 40 CFR Part 280
- Federal Communications Commission (FCC)
- Explosive Atmospheres (ATEX)

### **Governing Standards**

Governing Standards for Tank Monitoring Systems including probes, sensors, electronic line leak detectors and accessories shall be:

- EPA Regulations 40 CFR Sub Part D
- Certification by an Independent Laboratory using EPA Protocol (#EPA/530/UST-90/006) for annual and monthly tank testing.
- Certification by an Independent Laboratory using Evaluation Protocol for Continuous In-Tank Leak Detection Systems (CITLDS) (Jairus D. Flora 1/7/2000).
- Certification by an Independent Laboratory using EPA Protocol (#EPA/530/UST-90/010) for pipeline leak detection systems. Certification should include approvals for hard pipe and flexible piping systems.
- National Work Group (NWGLDE)
- Underwriters Laboratory (UL)



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# **Operational Specifications**

# In-Tank Leak Detection

- The system shall utilize in-tank probes based on magnetostrictive technology for liquid level measurement and in-tank leak detection.
- The Automatic Tank Gauge (ATG) shall be capable of performing a static tank tightness test to a threshold of 0.1 GPH with at least a 97.2% probability of detection [P (D)] and no more than a 2.76% probability of a false alarm [P (FA)].
- The system shall have the ability to conduct statistical continuous automatic leak detection tests and shall not require the shut down of the tanks for scheduled test times.
- The system shall have the ability to conduct statistical continuous automatic leak detection for systems that utilize manifold tanks:
  - The statistical continuous automatic leak detection system shall be capable of performing a test with 99% or 95% probability of detection.
  - The statistical continuous automatic leak detection system shall be capable of handling manifolded tanks.
  - The system shall utilize dynamic feedback variables in the algorithm to evaluate the noise factor patterns associated with a tank, and thereby adapt the algorithms to each individual tank.
  - The system shall perform a new 0.2 GPH tank tightness evaluation as soon as it has accumulated a statistically significant amount of idle period information in the database.
  - The system, when operated in the statistical continuous leak detection mode, shall be third party certified for statistical leak detection in tanks up to 32,891 gallons and a throughput of 445,408 gallons per month.

### **Interstitial or Secondary Containment Monitoring**

### Wet Monitoring

- The system shall be able to detect a breach in the inner or outer shell of a brine-filled interstitial space (annulus) of a double-wall tank or containment sump by conducting automatic, continuous leak sensing by monitoring the liquid level in the reservoir.
- The system shall have the ability to detect both high liquid level and a low liquid level in the brine reservoir of a double-wall tank and generate an alarm to indicate if high liquid level or low liquid level occurs.
- The system shall have the ability to detect a low liquid level in the brine reservoir of a double-wall containment sump.

### **Dry Monitoring**

- The system shall be able to detect the intrusion of liquid into the interstice from the inner or outer shell by performing automatic, continuous leak sensing in the dry interstitial space (annulus) of a double-wall tank.
- The system shall have the capability to differentiate between hydrocarbons and water and utilize a signal to indicate the situation.
- The system shall have the ability to determine the presence of hydrocarbons and/or fluid and provide an appropriate alarm.
- The system shall continuously monitor the sensor for an open condition, alarm condition, or normal operating condition.

# **Containment Sump Monitoring**

- The system shall perform automatic, continuous leak sensing in the containment sump
- The system shall be able to identify the presence of fluid (hydrocarbons and/or water) in the containment area and generate an alarm.
- The system shall be capable of distinguishing between hydrocarbons and water and generate an appropriate alarm. There shall also be a signal to indicate the event of sensing device failure.
- The system shall have the capability to monitor continuously the integrity of the sensor for an open condition, alarm condition, or normal operating condition

# **Product Inventory Management (Tank Gauging)**

- The tank monitoring system shall cull float height and temperature data from magnetostrictive level probes and use the data to calculate and display the following:
  - Product Level
  - Water Level
  - Gross Product Volume
  - Temperature compensated (Net) Product Volume
  - Gross Water Volume
  - Product Temperature
  - Maximum Capacity
  - Capacity %
- The system shall be capable of monitoring and recording inventory management information for a Manifold (multiple tanks that are connected by a siphon)
- The system shall treat the manifold as a separate entity from the individual tanks and display the following information for each manifold about the combined volumes of all the tanks in the manifold:
  - Gross Product Volume
  - Temperature compensated (Net) Product Volume
  - Gross Water Volume
- The system shall automatically detect and record a product delivery when product added to a tank or manifold exceeds a programmable delivery threshold volume. The data recorded shall include relevant information including the time and date of the delivery and the starting and ending values of the tank or manifold parameters listed above.
- The system shall be capable of storing a history of recorded deliveries.
- The system shall have the ability to monitor both aboveground storage tanks (AST), and underground storage tanks (UST), for inventory management.

#### **Inventory Reconciliation**

- The system shall be capable of performing inventory reconciliation by comparing dispenser sales transactions with inventory management and delivery information to calculate a variance for each reconciliation period.
- The system shall be capable of performing reconciliation periods as frequent as hourly.
- The system shall have the ability to receive dispenser sales transactions from the dispenser control system.
- The system shall automatically calculate the total Sales, Deliveries and Variance for each month and determine an Over or Short condition based on programmable parameters.
- The system shall allow the manual adjustment of sales and delivery information to account for activities that may cause false variances.

### **Optimized Tank Calibration**

- The system shall have the capability to alter automatically the tank-strapping charts to utilize a re-calibrated, accurate tank chart after system setup.
- The system shall have the ability to re-calibrate automatically the complete tank with a limited range of data gathered at the operating level of the tank during the calibration period.
- The system shall provide a customized calibration chart for each tank to minimize intrinsic tank-level error sources.
- The system shall use inventory measurements gathered by the gauge with dispensed sales information collected automatically by the system during the calibration process.

### **Density Measurement**

- The system shall be capable of measuring the density of gasoline and fuel oil products.
- The system shall have programmable alarm set points for density measurement.
- The density of each product shall be displayed on the LCD touchscreen, web pages and included on inventory reports.

### Phase Separation

- The system shall be capable of monitoring Ethanol blend fuels for phase separation.
- The system shall have a programmable alarm set point for phase separated Ethanol and water.

### Reports

- The system shall be capable of generating a variety of reports including but not limited to:
  - Inventory
  - Delivery
  - Tank leak test (Static and Continuous)
  - Sensor status
  - Event/alarm history
  - Inventory reconciliation
  - Regulatory
- The system shall have the ability to generate reports via networked or USB connected printers, email, and the web interface.
- The system shall have the ability to automatically generate reports at a scheduled date and time.
- The system shall have the ability to generate reports covering a selectable date range.

# Interfacing

The system shall come standard with multiple ports for interfacing with local and remote devices.

### **Serial Communications**

- The system shall provide one RS-232 port for interface with local devices such as a computer, point of sale terminal, or forecourt controller for remote communications.
- The system shall provide one RS-485 port for interfacing with local devices like Submersible Pump Controllers or Point of Sale systems.

### **Ethernet Port**

The system shall have an ethernet port for connecting to local area networks, computers, or other devices.

### **USB Ports**

The system shall include one type-A USB port for interfacing with common external printers using CUPS (Common UNIX Printing System).

### <u>Mini-USB</u>

The system shall have a mini-USB port for direct connection to a PC to access the web interface.

### Web Interface (XML based)

- The system shall have the ability to interface with a web browser using standard XML protocol.
- Access via web interface shall be restricted via password-controlled access levels.

### **LCD Touchscreen**

- The system shall have an LCD color touchscreen for local interface.
- Access via LCD touchscreen shall be restricted via multiple password controlled access levels.

### <u>Wi-Fi</u>

The system shall have a Wi-Fi option to allow a PC to access the web interface.

### **Electronic Dispenser Interface**

The system shall possess an electronic dispenser interface that can be used to retrieve metered volume data from a pump controller or POS terminal via a cable.

### **Input/Output Devices**

### **Output Relays**

- The system shall have the ability to enable external audible/visible alarms or control external devices through a relay contact closure.
- The output relays should be able to be configured in either a normally open or a normally closed orientation.
- The system shall have the ability to control the state of the output relays on user-defined alarms, events, inputs or scheduled date/times.

### **Input Channels**

- The system shall have the ability to receive dry contact inputs from external devices.
- Through systems programming, the system shall possess the ability to identify each external device connected to an input position.

### **Alarms and Events**

- The tank monitoring system shall have the ability to produce an audible and visual indication of all system, in-tank and leak alarm and warning conditions.
- The system shall have the ability to record and report system events.
- The in-tank alarms shall include but not be limited to:
  - Product Level or Volume Limit–Overfill (HIGH and HIGH/HIGH)
  - Delivery Needed–Low Product (LOW and LOW/LOW)
  - Leak Detected
  - High Water Level
  - High and Low Temperature
- The tank monitoring system shall provide an audible and visual alarm for in-tank leak test failures (0.1 GPH and 0.2 GPH) and external leak failures (fuel, water, sensor loss) via sensors.
- The system shall also have the ability to print all alarm conditions on a network or USB connected printer.
- The system shall be capable of communicating immediately all alarm conditions via ethernet port to a central computer.
- The system shall offer the capability to disable the audible portion of an alarm immediately, but allow the visual alarm to remain visible until the alarm condition has been remedied.
- The system shall be capable of providing an external audible and visual alarm with an acknowledgement switch, which shall have the ability to interface to the tank monitoring

system via an Output Relay. The external alarm box and acknowledgement switch shall have appropriate casing for outdoor installation.

- The system shall maintain a history of alarms and events that have occurred.
- The system shall incorporate a Compliance Tracking feature that will allow the system to provide notification prior to a device exceeding a determined compliance date.

# System Setup

- The system shall include parameter-driven software that modify the tank monitor to the appropriate site specifications. The parameters must be able to be entered in assigned fields at system startup. The parameters must also be able to be updated locally and remotely during and after startup to allow for changes in site parameters.
- The system shall offer a password protected access level to modify setup parameters to prohibit unauthorized changes.
- The system shall allow the setup data to be downloaded via web interface in single file format.
- The system shall have the ability to upload via web interface a setup data file and reconfigure itself to those parameters.
- Set-up parameters shall include but not be limited to the following:
  - Site Identification Data
  - System Configuration Data
  - Tank Setup Data
  - Probe Setup Data
  - Product Setup Data
  - Manifold Setup Data
  - In-tank Leak Test Setup Data
  - Continuous Automatic Tank Leak Detection Setup Data
  - Date/Clock Setup Data
  - Annunciator (audible alarm) Setup Data
  - Output Relay Setup Data
  - Input Channel Setup Data
  - Sensor Setup Data
  - Communication Port Setup Data
  - Dispenser Interface Setup Data
  - Reconciliation Setup Data
  - Tank Autocalibration Setup Data
  - Density Measurement Setup Data
  - Email Server Setup Data
- The system setup parameters shall include the ability to create custom logic conditions and notifications that control what actions the system will take in response to certain events. Events would include but not be limited to alarms, deliveries, leak tests and external inputs. Actions would include but not be limited to sounding an alarm, controlling an output relay or sending an email or fax.

- The system setup parameters shall include the ability to create customizable shortcut buttons that can be configured to initiate defined actions within the setup of the custom rules. These shortcut buttons can be accessed at the LCD color touchscreen.
- The system setup parameters shall include the ability to create programmable logic conditions using timers, logic, values, counters, value comparisons, and latches. Control outputs can be tied to these conditions for various functions, which may include but are not limited to indicating alarms, posting application events, and controlling relays and/or submersible turbine pumps.

### **Remote Monitoring Software**

- The system manufacturer shall offer a communications/database software package that allows the user to automatically collect data from multiple remote tank monitoring sites from a central location.
- The software shall provide the ability to communicate with the tank monitoring system via an RS-232 serial interface, modem, wide area network or Internet.
- The software shall have the ability to poll designated locations automatically and continuously, and store the gathered data in a standard database format. The system shall be able to perform the data retrieval on a user-defined schedule, or on demand.
- The information in the database shall be easily exported into other standard software packages for data organization.
- The software shall be able to generate reports that may be used for inventory, environmental compliance, or business management purposes. These reports shall be able to be run on demand, and report on either the whole database, or only selected ranges of the database.
- The software system shall provide the ability to retrieve all diagnostic data from the tank monitoring system and have the ability to backup and recover the data that have been stored.
- The software package shall have the ability to communicate with any ATG utilizing the INCON Native language, INCON XML language, Veeder-Root 250 or 350 languages. The software shall have the ability to support multiple types of tank gauges within the same network.

# Product Specifications and Capacities

### Console

- The console shall have appropriate mounting holes for wall mounting.
- The console shall be equipped with a color touch screen, backlit, liquid crystal display (LCD) with a diagonal viewing area of 7 inches, to be used for on-site viewing of all inventory, leak detection, and alarm information.
- The touch screen LCD display shall have icon based alphanumeric functions for programming, operating and reporting.
- The console shall provide a web based user interface through ethernet, mini-USB, or optional Wi-Fi.
- The console shall have three front-panel indicators to provide a visual indication of "system heartbeat," "power on," "warning," and "alarm" conditions.
- The console shall support a networked or USB connected printer in order to provide hard-copy documentation of inventory, leak detect, and alarm information.
- The console shall utilize non-volatile memory to maintain all programming information, as well as historical data, in the event of an extended power failure.
- The console shall utilize a super capacitor to maintain the date and time in the event of extended power failures.
- The console shall utilize a Micro-SD memory card with power fail protection.
- The console shall be equipped with conduit knockouts on the top and bottom of the monitor for rigid conduit entry into the monitor.
- The console shall be capable of selectively communicating in multiple languages and use an icon/symbol based interface for ease of use in all languages.
- The console shall be equipped with internal audible and visual warning and alarm indicators.
- The console shall be intrinsically safe, with Underwriter Laboratories (UL), Canadian Underwriter Laboratories (cUL), ATEX (Europe) and International Electrotechnical Commission (Explosive Atmospheres) (IECEx) approval.
- The console shall comply with FCC testing, FCC Part 68 and Part 15.

- The console must be mounted and wired according to the installation manuals supplied by the manufacturer, with all intrinsically safe field wiring enclosed in dedicated conduit and separate from all other wiring.
- The console shall continuously monitor all probes and sensors, and report normal operating conditions as well as system malfunctions or failures.

# Tank Gauging and In-Tank Leak Detection

- The system shall be capable of monotoring:
  - EVO<sup>™</sup> 200 6 probes or sensors.
  - EVO<sup>™</sup> 400 14 probes or sensors.
- The system shall be third-party certified to perform both static and continuous in-tank leak detection.
- The system shall have the ability to monitor the density of the contents of the tanks.

### **Probes**

- The probe shall have the ability to use specified Belden twisted shielded pair cable with conductors between 18 AWG and 22 AWG for field connections.
- There shall be two conductors and a shield wire between each probe and control console.
- The probe shall be capable of performing a leak detection test of 0.1 GPH and 0.2 GPH.
- The probe shall have the required Third-Party Certification in accordance with the U.S. EPA's "Standard Test Procedure for Evaluating Leak Detection Methods: Automatic Tank Gauging Systems" (0.2 GPH monthly monitoring).
- The probe shall have the required Third party Certification in accordance with the U.S. EPA's "Volumetric Tank Tightness Testing Method" (0.1 GPH annual tank tightness test).
- The probe shall be compatible for both AST and UST installations.
- The manufacturer shall offer an install kit for easy installation and removal of the probe.
- The probe shall be capable of being installed in 2" or 4" tank openings.
- The probe shall be manufactured with a minimum of five RTD Temperature Sensors and have a 316 stainless steel shaft.
- The probe shall be available in an inventory-only model that does not support leak detection with a minimum of one RTD temperature sensor.

### Sensors

- The sensors shall have the ability to use standard, non-shielded gas-and oil-resistant wire with a [minimum of 18 AWG?] for field connections.
- The system shall be able to monitor up to 14 interstitial areas and/or containment area utilizing a standard float-style sensor.
- The system shall be able to monitor up to 14 interstitial areas utilizing a discriminating interstitial sensor.

- The system shall be able to monitor up to 14 discriminating dispenser pan and/or piping containment sump sensors.
- The form factor of the sensors must allow easy field installation/removal.

### **Discriminating Dispenser pan and Containment Sump Sensor**

- The discriminating dispenser pan and containment sump sensor shall utilize a conductive technology to sense the presence of hydrocarbons and a float switch technology to detect the presence of any liquid. It shall be able to provide separate alarm conditions for liquid detected, hydrocarbons detected and high liquid level.
- The design of the sensor shall provide for a distributed sensing capability over the full length of the dispenser pan and containment sump sensor.
- The dispenser pan and containment sump sensor shall be reusable after being exposed to hydrocarbon liquids.
- The dispenser pan and containment sump sensor shall provide an indication of fluid when liquid reaches 1.5" in height.
- The dispenser pan shall provide a high-liquid-level indication when fluid reaches 8" high and the containment sump sensor shall indicate a high liquid level when fluid reaches 11" high.
- The dispenser pan and containment sump sensors shall be supplied with a six-foot leader cable to connect the sensors to field wiring in the sensor junction box.
- The dispenser pan sensor shall be 2.5" diameter and 11.8" high to address dispenser pan applications. The containment sump sensor shall be 2.5" diameter and 21.07" high to address containment sump applications.

#### Piping sump sensor

- The piping sump sensor shall be low cost and utilize a float-switch technology to sense the presence of liquid.
- The sump sensor shall be designed with a 25-foot leader cable to connect the sensor to field wiring in the sensor junction box. The sensor shall be equipped with watertight cord grip assemblies to install in sensor junction box.

### **Discriminating Interstitial Sensor for Double-Wall Steel & Fiberglass Tanks**

- The interstitial sensor for a double-wall tank shall be 3.22" high and 1.1" in diameter in order to fit into a riser pipe for a double-wall tank.
- The interstitial sensor shall be equipped with a 25-foot leader cable to connect the sensor to field wiring in the sensor junction box.
- The sensor shall utilize an electro-optic technology to sense and alarm for the presence of fluid, and use a conductive technology to identify hydrocarbons, and shall provide separate alarms to notify the end user of the presence or fluid or hydrocarbons.

#### **Hydrostatic Sensor**

- The hydrostatic sensor shall utilize a dual-float technology to continuously monitor the fluid level in the interstitial space.
- The hydrostatic sensor shall be available in two models. One standard length model for use in most applications and one extended length model for use in applications with large fluid level fluctuations.
- The standard dual-float hydrostatic sensor shall be 11.8" long and 2.5" in diameter for easy installation in the riser pipe assembly of double-wall tank brine reservoir.
- The extended length dual-float hydrostatic sensor shall be 21" long and 2.5" in diameter for easy installation in the riser pipe assembly of double-wall tank brine reservoir
- The sensor shall be supplied with a 15' leader cable to connect the sensor to field wiring in the sensor j-box.
- The sensor shall be provided with a lockable, watertight riser cap to prevent accidental spills into the tank reservoir. The cap shall be equipped with a vent tube to vent air out of the reservoir area and prevent liquids from entering into the reservoir.
- The sensor shall be able to indicate a high liquid level and a low liquid level in the tank reservoir.

### **Electro-Optic Sensor**

- The Electro-Optic sensor shall utilize electro-optic technology with a light-emitting diode to detect the presence of fluid in tight sensing locations.
- The sensor shall be equipped with 25' of oil-resistant cable for connecting the sensor to field wiring in the sensor junction box.
- The sensor shall be 0.67" wide and 2.62" long.

### **Density Measurement**

- The system shall have the ability to measure and report the density of gasoline and fuel oil products.
- The system shall be able to be configured to alarm if the density of a product exceeds a programmed range.
- The density measurement capability shall be achieved using the same magnetostrictive probe that provides in-tank inventory and leak detection.

### **Serial Communications Interface**

- The system shall have the capability to communicate directly with a computer or a point of sale console.
- The RS-232 port shall support Point to Point or Veeder-Root 250/350 protocols.
- The system shall have one RS-232 serial communications port.
- The system shall have one RS-485 serial communications port.

### Ethernet

- The system shall have an ethernet port with a snap in RJ-45 jack for direct data transmission over an ethernet based wide area network or Internet.
- The system shall have indicator LEDs to show ethernet port operability and connectivity.
- The ethernet port shall be able to support Veeder-Root 250/350 protocols

### **Turbine Pump Interface**

- The system shall have the capability to communicate with Intelligent Turbine Pump Controllers using RS-485 communication.
- The system shall have the capability to communicate with Franklin Fueling Systems FE Petro Smart Controllers and FE Petro Variable Speed Controllers.
- The system shall have the ability to monitor, record, and reset fault conditions.
- The system shall have the ability to provide fault detection diagnostics.
- The system shall have the ability to provide level management of tanks containing the same product.
- The system shall have the ability to disable a submersible pump when water is detected in the tank.
- The system shall have the ability to provide a display of the current operational status of the submersible pump controllers.
- The system shall have the ability to provide a Pump Controller Status Report and Setup Report.

### **Tank Reconciliation and Autocalibration**

- The system shall be capable of obtaining fuel sales transactions via the following methods:
  - RS-232 Serial Interface to a POS
  - Ethernet connection to local area network
- The system shall automatically compile sales transactions, deliveries and in-tank inventory information and reconcile the totals at the end of each shift, day or period into a comprehensive reconciliation report.
- The system shall be capable of conducting an automatic tank calibration process through typical operating levels in the tank as fuel is dispensed.

# Manufacturer Support and Field Service

# **Technical Support**

- The manufacturer shall offer technical phone support to customers for at least 12 hours a day.
- The manufacturer shall provide technical phone support available to authorized distributors and certified contractors for on-site troubleshooting of the tank monitoring system.

# **Field Service**

- The manufacturer shall maintain a trained technical service network available for providing on-site customer support and training, as well as overseeing and/or performing the start up and programming of tank monitoring systems.
- The manufacturer shall have a technical service staff to support the distributor/contractor field service network.

# **Certification Training**

- The manufacturer shall require and provide mandatory certification training for all of its authorized distributors and service contractors/installers
- The certification program shall cover installation, setup/operation, and service/ troubleshooting of the manufacturer's tank monitoring systems.
- The manufacturer shall provide certification information on contractor/installer to regulatory agencies that require certification documentation.
- The manufacturer shall offer re-certification training to keep contractors/installers current with updated information.

### Warranty Registration and Checkout Form

- The manufacturer shall require that a certified technician perform all tank monitoring system startups.
- The startup shall consist of installation checkout, operation checkout and customer training on use of the equipment.
- The manufacturer shall supply a Warranty Registration and Checkout Form to properly document the site information to include:
  - Installation location.
  - Installer.
  - Equipment identification.
  - Tank information.
  - Leak detector information.
  - Startup distributor information.
  - Customer approval.
  - Installation checklist.
  - Training information.
- Upon receipt of the Warranty Registration and Checkout Form, the manufacturer will initiate the system warranty.

### Delivery

The manufacturer shall have the ability to ship tank monitoring systems to customers based on when the systems are needed by the customer.

# ISO-9000

The manufacturer shall maintain an ISO-9001 rating to ensure quality management of design, manufacturing, training and technical documentation.

# Documentation

# Manuals

The manufacturer shall supply product documentation that addresses the following categories as additional support:

- Site Preparation and Installation Instructions
- System Setup Instructions
- System Operating Instructions
- Probe Installation Instructions
- Product Data Sheets
- Troubleshooting, Application Guides, and Repair Manuals
- Wiring Diagrams which include the following:
  - Identification of all devices and equipment terminals, and all external connection terminal blocks.
  - All external wiring connections with approved wire colors and circuit designations.

# **Third-Party Certification**

The manufacturer shall supply on request, third-party documentation for all products certifying that performance meets or exceeds EPA requirements.

# **Authorized Service Personnel Listing**

The manufacturer shall supply on request, a formal list of all Authorized Distributors and Service Contractors for sales, installation, training and support.

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# System Warranty

- The tank monitoring system shall be warranted for parts and service for a period of one year from date of installation, or two years from the date of manufacture, whichever comes first.
- The warranty shall include parts and labor, provided that an authorized manufacturer's representative who follows the manufacturer's warranty/RMA procedure performs all warranty work on site.



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