Greenlight™: Remote, Real-time Perimeter Air Monitoring

Among the comprehensive environmental services offered by Triumvirate Environmental is our perimeter air monitoring service using our proprietary Greenlight™ System. This computer-based collection system uses wireless telemetry to transmit real-time data to a cloud server. The server hosts a project-specific database, and a web-based user interface provides intuitive, responsive, and secure features to manage the monitoring conducted at the project. The real-time user interface provides graphical displays, performs alarm calculations and notifications, and produces summary reports.



The Greenlight™ Difference

Each Greenlight™ field station is housed in a rugged waterproof case mounted on a tripod, designed for outdoor operation. The stations can also be housed in secure metal enclosures. The field stations can be powered by AC power, or by batteries for standalone operation during the site work shift. Optionally, solar panels can be provided to eliminate the need to swap and charge batteries.

The field station contains direct-reading instruments based on site-specific requirements and our Greenlight™ RTU Communications Controller. The RTU includes an embedded processor that manages the local database and a cellular modem that transmits data to the server. The RTU also provides storage redundancy, reducing the risk of lost data. A single full-feature weather station is typically provided for each project. The field stations can also be equipped with dedicated real-time wind speed and direction sensors.

Greenlight™ integrates wind-direction data with environmental measurements, enabling the system to identify real-time values of upwind (background) levels of environmental measurements and then calculate adjusted downwind levels. This robust approach allows the project to maintain operations regardless of wind direction, and eliminates the need for field personnel to manually assess the prevailing wind direction and relocate monitoring stations to suit; instead, the system continuously calculates the prevailing wind direction and tags all data accordingly.

Advantages

- Our 99.5% uptime reduces project downtime while maintaining regulatory compliance
- Modular system design provides the flexibility necessary to meet specific project/site needs
- Professional installation, setup, and experience
- User dashboard provides real-time information based upon data trends, time-weighted averages, and other pertinent calculations
- Multiple alarm levels to understand trends allowing for limited project shutdowns
- Streamlined power source means there is only one main battery to swap Turnkey support available to provide air monitoring plans, design, and analytical requirements
- Superior technical support and quick response

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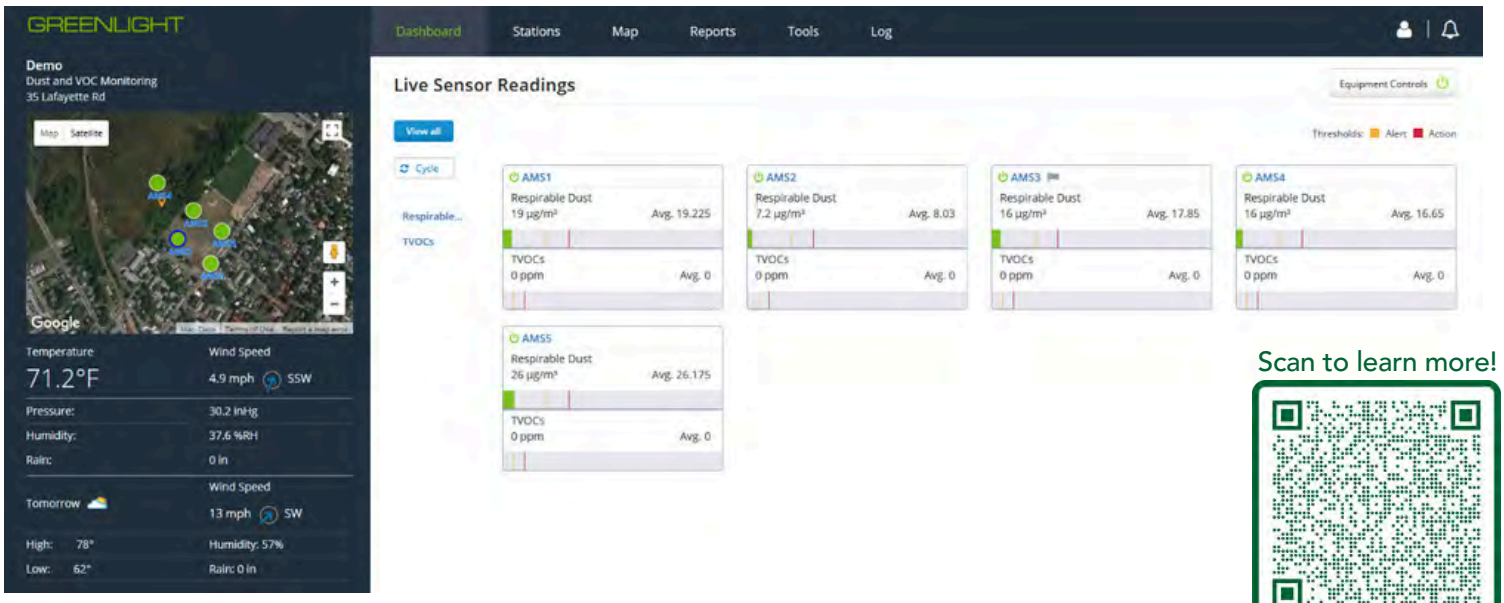
Features

- Our 99.5% uptime reduces project downtime while maintaining regulatory compliance
- Proprietary system with an innovative use of measurement, communication, and data handling technology
- Site-specific reports providing all necessary data requirements
- Web-based, real-time (no software required) environmental monitoring system
- Readings and alarms in real time, no data lag
- Alerts communicated via dashboard, text message, and email
- Industry standard devices combined with innovative proprietary technology to fulfill project demands
- Compatibility with over 25 devices (TSI, RAE, Instantel, Vaisala, Arizona Instruments, Larson Davis, and more)
- Customizable for more intricate requirements
- User interface optimized for smartphones
- Ability to add additional instrumentation to the system
- Control of cameras, power, pumps, valves, etc.
- Follows standard EHS protocols to monitor, display, notify, and record
- GPS-enabled technology in each station
- Logging feature to document alarm levels, upload pictures, and save to the database
- Flexible power options: AC power, 12V DC power, and complete solar power
- System arrives fully tested and ready to go when delivered to site





Our system is available to rent with remote technical support from our team. We also provide project support with an air monitoring technician as needed. Our industry leaders in design and implementation of air monitoring systems (including toxicologists and Certified Industrial Hygienists) are available to write air monitoring plans and assist in project scope.



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