blacklinesafety

GAS PLUME MODELING

Sensor-driven plume dispersion modeling puts you in control, helping you monitor, model and mitigate chemical releases in real-time.

AN ESSENTIAL TOOL IN YOUR EMERGENCY RESPONSE

Unanticipated chemical releases at an industrial worksite can pose a significant safety risk to both workers on site and, in worst-case scenarios, residents of surrounding communities. Full situational awareness is critical to an effective response.

From knowing what type of release it is, to its point of origin, to its flow rate, to if people are in the vicinity, access to timely and accurate information is necessary to protect on-site personnel, emergency responders and neighboring communities.

Equally important to knowing what is happening on the ground, is understanding what could happen. Factors—like windspeed and direction—can escalate a chemical release incident quickly, transforming it from a contained event to a full-scale emergency with offsite impacts.

BLACKINE SAFETY + VLAHI SYSTEMS = BOOSTING SAFETY + SAVINGS

Vlahi, an innovator in plume dispersion modeling, uses proprietary, government-endorsed software **CERES** to estimate the downwind concentration of a released gas to predict its size, speed, and where it will spread.

The modeling is informed by real-time sensor-gas readings from Blackline's connected gas detection wearables and portable area gas monitors in the field paired with live weather data.

The result? Better response quality and efficiency and better protection for your people and communities—at a fraction of the cost of comparable solutions.

INFORMED SCENARIO MODELING

Working through Blackline Safety's push and connect software APIs, CERES pairs real-time, location-stamped sensor gas readings from cloud-connected Blackline Safety G7 wearables and G7 EXO portable area gas monitors in the field with live weather data (through IBM weather or on-site meteorological stations).

Together, they are used to estimate the gas concentration of the plume alongside how it may move downwind. As winds shift and conditions change, so does the plume model, giving incident commanders and responders the most accurate information about the incident and helping them coordinate, plan and prepare for worst-case scenarios.

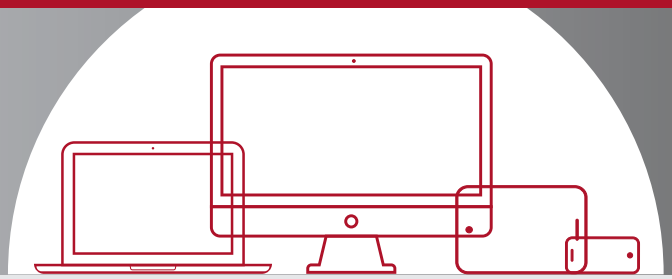
And it's all backed by the government-endorsed US EPA ALOHA code modeling engine for even greater confidence.

Safety+Health

Traditional (static) plume modeling has depended on manually entering all of the data points, making it time-consuming and expensive to create the model. In some cases, this information may not be available, so you must rely on your best estimate. Because of this, the plume generated by a static model will never be up to date. By the time the data is entered, it's already old. It's like trying to predict the winner of a race from a photo taken right after the starting gun.

– Occupational Health and Safety Magazine

COMMUNICATE WITH CONFIDENCE WITH CERES—FROM ANYWHERE, ANYTIME, ON ANY DEVICE



- **Real-time information gathered directly from data in the field**
  - Make better, faster, more informed decisions
  - Deploy your resources effectively and strategically
- **Available through a cloud-based web-app**
  - Accessible via an Internet browser
  - And a full experience mobile app (Android and iOS)
- **Easy collaboration between stakeholders**
  - Share up-to-the minute reports
  - Your people, first responders and regulatory authorities are always in the know to respond swiftly and safely
- **Customization to fit any client need or budget**

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