

Verifiable ways to address regulatory and public concerns about potential threats to the environment and safety

One of the trends in the public discourse (reflected increasingly in laws and regulations) about perceived threats like leaks, explosions, and fires has to do with timeliness and availability of information. People want to be informed about threats to their environment and safety. They want current, accurate information about potential hazards, and how these risks are being managed by property owners.

Previously, newspaper ads, printed flyers, and town hall meetings were the best ways to provide information to the public. Now, information technology (public websites, email lists, and social media such as Twitter and Facebook) provide information to the public in familiar ways.

The use of electronic communication and tools delivered through websites and applications is increasingly being mandated in regulations. As an example, consider the U.S. EPA's new requirements on the disposal of coal ash generated by power plants, which include the set up and maintenance of a website providing current information on each disposal facility.

New information tools not only meet regulatory obligations, they can foster good relations between extractive industries and the general public, helping to preserve that increasingly vital "social license to operate."

Companies that get ahead of the curve by voluntarily offering information on their facilities have an advantage when it comes to dealing with stakeholders such as environmental organizations, local politicians, regulators, and legislators.

Better ways to gather, manage, and convey data

Companies already feeling squeezed may not want to add to the workload of their employees by using labor-intensive or traditional methods to gather and frequently update information on all of their facilities. Fortunately, current information technology makes it easier to gather, manage, and convey the information that the public requires – and to do it in a verifiable, transparent way.

Gathering information: field-friendly devices and software

The mobile technology revolution has been a huge aid in gathering information while staff people are at sites and in the field. Integrating web and mobile applications creates a



centralized, streamlined method for collecting, organizing, maintaining, and reporting on large, even massive data sets. The days are gone for a field inspector to use a clipboard, calculator and a Number Two pencil.

Ruggedized tablets running the right software can accept data input on site, and in milliseconds provide an accurate answer – and do so in a repeatable way – vastly reducing the chance for an error.

Good technology is designed to fully include the work processes that the user will follow. When there is a large amount of workflow and that workflow is repeatable (think of Henry Ford's assembly line), having well-planned



procedures can save time, improve consistency of data collection, and force improved quality in the data accepted.

In generating field reports, a well-designed data-gathering system prompts the user to start at the periphery – typically, determining the land uses around a facility. GPS technology can help measure the distance to any sensitive land uses, such as a wetland, watercourse, or human habitation. Changes from the previous report can be noted. The software should also require the inspector to enter information, for instance, on the likely direction of flow of any releases if a secondary containment were to be breached.

Good software walks the inspector through the necessary steps, modified to meet the requirements of the state, federal, or other applicable regulatory authorities, while the crew is still on site. Thus, items of concern and additional information is collected during one round of effort; reducing or even eliminating the need for repeat inspections.

Managing data to support prompt action

Experience in developing field-friendly inspection software has found that the technology makes it easy to support action taken right away. For example, if the inspection team discovers that a protective measure does not meet current standards, the team can take action right then and there. Then, the data on the facility can be updated.

Using an Internet connection and managing the data in an electronic form also makes it easy to transmit a report instantly to a central database to plan any further work needed to keep a facility in compliance.

Staff no longer need to key in the information found on paper inspection reports into a computer upon return to an office environment – improving the accuracy of the information, boosting the chances that the calculations and findings can be replicated, and reducing the amount of time staff people need to spend on tedious work.

Moving forward, information about environmental status, health and safety programs, and infrastructure is easily accessible by multiple users through a single user interface, and updates occur universally and in real time.

Conveying data to the public and regulators

Capturing accurate data at the source through online forms that help inspectors gather the right data also helps with the need to keep the general public, news media, environmental organizations, political leaders, and regulatory bodies informed about management of a facility. Instant, verifiable data can then be made publicly available through the facility's website or social media presence.

Good software facilitates the gathering of data so that websites, including dashboards that summarize the information, are credible, accurate, and current.

Developing good systems with the right technology for managing existing facilities can help a company when it comes time to expand. The company will be able to point to effective electronic engagement with stakeholders when discussing plans for proposed facilities.



For more information, please contact Christopher Niven, principal, Civil & Environmental Consultants, Inc.; (800) 365-2324; cniven@cecinc.com.

