

# Gas Detection Programs of the Future

Here's a brief look into one company's gas detection program in the year 2021.

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**Y**ikes, Monday morning already. Where did the weekend go? Where has this year gone? Summer is over and it's already almost Halloween 2021. Well, I'd better get in to work and make sure everything is okay. I've been the Head of Safety at Yellowday Oil Company for the past seven years, and I like to get an early start.

As I walk into my office, I see a couple of boxes on my desk. I'll crack into them in a little while, but first, let's see how everything looks this morning with our gas detection program. I log on to my computer and see that we're sitting in the green. "Nice," I say to myself. I always feel a little anxious until I see the green.

The software program I'm looking at shows me a dial with a gauge divided into red, yellow, and green segments. The needle in the green gives me a quick read that our gas detection program is running smoothly. We've really managed to tailor the software to our program, so I feel at ease when I see we're in the green.

Next, I want to make sure everything else looks okay. Sure enough, all of the monitors successfully

bump tested this morning, and everything is calibrated. The teams should be all set with their gas monitors for the day.

Now, I'll check out those boxes.

Jim, who works with me in the Safety Department, walks in just as I start opening one of them. "Anything good, Mike?" he asks. "It's a gas detector," I tell him. "I received an e-mail on Friday saying that one of the monitors' oxygen sensors was reaching the end of its life and that a new monitor would be sent out right away. I'll swap this monitor with that one and return it." The second box contains a new cylinder of calibration gas. I wasn't expecting this, but I assume the e-mail letting me know my calibration gas cylinder was getting low came after I left on Friday.

Jim just gives me a smile. He's worked here for well over 20 years, and he loves to give me the little speech on how good I have it. He says that "back in the day," things didn't just show up ahead of time. I can't argue, though — I know he's right.

It used to be that you didn't find out your sensor was bad ahead of time or that your calibration gas cylinder was empty — until it was. And then you had to hustle to get replacements ordered and installed. Some companies would keep spare instruments around just in case one had a problem.

Even though Jim likes to give me a hard time, he's glad things have changed. With the monitor maintenance out of the way, we can focus our attention on our real job, which is to be proactive about the safety of our workers.

"How about you go check the 'Eye,'" I suggest to Jim. The "Eye" is the nickname for a screen in a computer software program that enables us to see all of the operators throughout the plant. Although we call that screen the "Eye," it's just one component in a system that allows us to see each person on the plant floor who is carrying a gas monitor. Each operator has been assigned a specific monitor, and we've typed all of their names in for their monitors. Now, when we look at the screen, we can identify where they are on the plant floor. More importantly, we can see whether a gas detector is going into alarm and what it is reading. We can even tell if a worker hasn't moved in a while; perhaps someone fell, and we need to send in a response team or evacuate an area.

The "Eye" connects us to the team in a way we never had before. Thankfully, we haven't had an incident

in quite some time; nevertheless, I know the operators feel more secure in knowing we're looking out for them. This new technology has helped us to make significant strides in our safety program.

One major reason I feel we've increased safety in our gas detection program is that we're using technology to gather data like never before. I'm a big believer in the numbers and in the saying "What gets measured gets done." The first screen I looked at this morning gives me a quick read on our program and some of the vitals, which is very helpful. But in addition, it helps me to re-

cord and organize the data more quickly.

Using the data collection software, I can see whether anyone is doing things that are just plain unsafe. For instance, the data tells me whether operators are turning their gas monitors off while in alarm or people are not properly evacuating an area when the monitor is in alarm. Based on this information, we can meet with the teams and make sure everyone is properly trained and knows the procedures. I also can use the data to see whether gas is present in areas where I know it shouldn't be.

Maybe a valve broke or a ventilation fan

went down. Sometimes I'll notice a trend, such as instruments going into alarm on the same shift or at the same time for a few days in a row. With this information, Jim and I can resolve the issue quickly by talking to the operators and the facility supervisor for that area of the plant. It definitely gives us a good feeling to see those readings disappear.

If we weren't able to regularly view all of this data, who knows how long the issue could have continued or who could have been put in a dangerous situation as a result? Things have definitely changed at Yellowday Oil Company, and we know technology is certainly making a difference.

## The Technology's Coming

Mike and Jim are fictional characters, and Yellowday Oil Company is a fictional company created for the purposes of this article.

The above narrative provides a glimpse into the future. Enhanced technologies used in gas detection programs will become available and will provide advanced maintenance for gas detection monitors, improved recordkeeping, and increased safety of workers. Organizations will have increased visibility into their gas detection programs and will know things such as the location of operators within a facility or whether a worker's monitor is in alarm and if he needs help. Technology will not only aid us in compiling lots of data and records, but also help us to analyze the data and put it to good use.

For many reading this article, I expect that this kind of gas detection program will be their reality in 10 years. For some, this is practically their reality today. Most of the technology mentioned, while not commonplace, is available today. The real hope is that this glimpse of the future doesn't take 10 years to become commonplace and that people will see this sooner rather than later.

I believe that in many things we do, professionally and personally, we wait to make the future a reality. We tell ourselves the time just isn't right, only to experience feelings of regret later for having not tried or done something sooner. When will your gas detection program's future begin? **OKS**

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