Early morning sun is just about to break the horizon. It’s 6:00, the wind is deadly calm, and a dim light dances across the frosty meadow — the only thing that stands between your team and a plainly looking farmhouse. But this farmhouse is far from benign.

You’ve received complaints about strange smells wafting from the property, traffic comes and goes at all hours of the night, and a small dump sits in the back containing cold medicine bottles, modified propane tanks, solvent containers, and lithium battery skins. All signs of a small clandestine drug lab on the premises.

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Seizing meth labs — a toxic stew of solvents & gases

By DAVE KUWAH

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hands makes the lab highly unstable.

The most popular of all clan labs are ones that produce methamphetamine or “meth.” Methamphetamine is a stimulant that is generally sold in a crystal or powder form. It’s ingested or smoked and is highly addictive. Meth production is quite simple and highly profitable. Most of the chemicals required to produce meth are commonly available and the cooking tools are in just about everyone’s house.

You would never consider entering a tactical situation without your bullet-proof vest, and you should never breach a clan lab without a device to measure the levels of deadly toxic and explosive combustible gas. Here’s why:

Multiple exposures
Meth is cooked up usually two ways: using a method called the “Nazi Dope” and another called the Red Phosphorous or RP method.

“Nazi Dope” produces small quantities for mostly personal use. Ephedrine or psyoephedrine (over-the-counter cold medicine) pills are crushed and mixed with a common solvent such as acetone or lacquer thinner. This frees the ephedrine from the binder. The mixture is filtered to leave the solvent/ephedrine mixture behind. The mixture then sits so the solvent can evaporate, leaving powdered ephedrine. Due to the free solvent vapors in the air, this stage of the process is highly volatile and potentially explosive.

The powdered ephedrine is then combined with lithium battery strips from disassembled batteries and anhydrous ammonia is added. The chemical reaction results in a material called meth oil. Toxic ammonia gas is present during this stage of the process, due to the uncontrolled use of liquid ammonia.

The next step: manufacturing a crude hydrogen chloride gas generator by combining common acids and rock salt. The hydrogen chloride gas is then bubbled through the meth oil. Meth crystals fall out of the uncontrolled use of liquid ammonia.

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METH USE SOARS
Methamphetamine use is up 68 percent in workplace drug tests, according to Quest Diagnostics, a national drug testing company. Use of meth is growing so quickly it may surpass cocaine as the top illegal stimulant. Some users binge for hours on the drug then stay up for days at a time. Not someone you’d want to work with. "The person may become a disturbance at the workplace; the person may, depending on the level of irritability, throw a temper tantrum or have hallucinations or some other bizarre behaviors," said one health expert.

Meth might appeal to workers because it provides the “superman syndrome” — excessive amounts of energy and a false sense of confidence. But it can cause everything from increased heart rate to anxiety and unusual violent behavior.
the solution. Deadly hydrogen chloride gas is present and poses a severe health risk in this final stage of the process.

The Red Phosphorous or RP method produces large quantities of meth — and large quantities of hazardous waste. “Super labs” often run by organized crime use this technique, which is a bit more sophisticated and controlled. Laboratory grade equipment and chemists are used to maximize production and quality.

The RP process also produces powdered ephedrine. The powder is then mixed with red phosphorous (extracted from match packs and flare strikers) and soda. The mixture immediately begins to produce hydriodic acid and toxic phosphate gas.

The mixture is heated in a controlled environment and the cook lasts six to eight hours. During the process, the off-gases need to be cooled to minimize phosphine gas production. During this process, phosphine gas production will range anywhere from 5 percent to 95 percent by volume — extremely lethal concentrations.

Know what you’re getting into
So how do you best protect yourself in this toxic stew?
Until recently, the only technology available to monitor phosphine, ammonia, and hydrogen chloride gas were colorimetric indicator tubes. These glass tubes were cumbersome, took several minutes to react, and were grossly inaccurate.
Now there are direct-reading gas monitors capable of monitoring the five target gases simultaneously and continuously. The monitors use the latest lithium-ion battery technology and run for 24 hours on a single charge. Optional sampling pumps with a sample draw range of 100 feet allow you to stay at a safe distance from the potential gas hazard.
Small enough to be worn on the belt, the ammonia, phosphate, hydrogen chloride, oxygen, and combustible gas monitors use the latest technology features provide you with data that is admissible in court.

The gas monitors also interface with automated calibration systems that control calibration and bump testing routines and the timing of them. All routines are documented on a PC to prove the accuracy of the monitor. Certificates are available for printing to confirm and validate evidence of the calibration.

Protection that’s a win-win
Clan Lab Enforcement Teams operate in “work environments” most of us never see, or would want to enter. It’s a dirty, dangerous business filled with booby traps, unseen hazardous gases, jittery junkies and professional criminals. If ever a work environment demanded guts — and specialized, easy-to-use gas monitoring equipment — this is it. Safe, well-protected enforcement teams mean safe, well-protected communities. And for that we can all be thankful.

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