



Commentary

Title: Responding to Fires at Clandestine Methamphetamine Drug Laboratories

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Scope

This document is intended to give fire departments a quick overview and guide for recognizing and operating at clandestine methamphetamine laboratories. A detailed Commentary on clandestine labs - "*Clandestine Drug Operations – Methamphetamine Laboratories and Marijuana Growing Operations*" - is available on the OFC web site at www.cps.gov.sk.ca/Safety/fire. Follow the links to the Technical Services page.

Introduction

Methamphetamine is a powerfully addictive drug that is easily produced using readily available chemicals and over-the-counter medications. Labs may be set up in virtually any location. The hazardous materials used in the production of this drug can injure or kill. They also present serious long-term health risks. About 20% of clandestine labs are discovered when they catch fire or explode. Statistics also show more than half of the people injured at clandestine lab fires are emergency responders.

Identifying Clandestine Methamphetamine Labs

Fire department personnel are faced with a difficult task. A number of indicators can alert emergency responders to the presence of a lab during initial size-up. Others won't be found until entry is made. Criminals running clandestine labs usually try to hide or disguise the operation. They often take extreme measures to protect the lab and the drugs produced there. Many times lab sites are found in homes or apartments where family members and neighbours are exposed to the hazardous materials inherent in the drug cooking¹ process. Some producers use hotel rooms, unoccupied buildings in rural areas, storage buildings, even the trunk of a car. Meth labs are easy to set up. Complex equipment, special skills or a detailed knowledge of chemistry aren't needed. Most of the equipment and chemicals required can be purchased at local hardware stores and pharmacies. The recipes used to manufacture methamphetamine change over time. Recipes are passed from person to person, found in anarchist publications, or on the Internet. The exact hazards present at any particular methamphetamine lab can vary greatly. However, most labs contain flammable and combustible materials, corrosives, solvents, refined drugs, and toxins. There are a number of indicators fire fighters should watch for.

¹ The production of methamphetamine is known by the slang terms "cook" or "cooking" on the street. The drug produced is called "meth," "crystal meth," "ice" or "crank" among other terms. The use of these terms by residents and others at a fire scene should alert fire fighters to watch for other indicators of a clandestine drug laboratory.

Drug Lab Indicators

- Unusual and offensive odors like solvents, ether, acids, iodine or a strong smell of dried cat urine.
- Covered or painted over windows.
- Extensive security measures – bars on windows, steel doors and heavy locks, booby-traps.
- Unusually large quantities of:
 - packaging from over-the-counter cold medication
 - matchbook covers or road flares
 - yellow or brown-stained cat litter
 - coffee filters with a reddish residue
 - cans of camping fuel
- Propane bottles and fire extinguishers with blue-stained valves.
- Laboratory glassware or odd assortments of containers like pop bottles or windshield washer fluid jugs hooked together with tubing.
- Heating elements, hot plates, Bunsen burners, camp stoves or heating mantels.
- Unusual collections of lye, drain cleaner or other caustic chemicals.
- Large hoards of trash kept inside the dwelling or structure.
- Information or warnings from police or neighbours.

Fireground Procedures

Once a meth lab is identified (or suspected) there are a number of procedures a fire department should follow to ensure the safety of fire fighters, other emergency responders and the public. No interior fire fighting attack should be made. If an interior attack is already underway, have all fire fighting personnel leave the building immediately. Fight the fire in defensive mode from the exterior and protect exposures.

Recommended Procedures

- **DO NOT** interrupt any utilities to the lab building.
- **DO NOT** touch or move anything in or around the lab building or site.
- **DO NOT** apply water to the lab building or site.
- **DO NOT** overhaul the fire building, vehicle or site.
- When indicators of a clandestine lab are found treat the call as a hazardous materials incident.
- Create an exclusion zone – 300 meters down wind, 100 meters on other exposures - withdraw immediately to a safe location upwind.
- Consider evacuation of the exclusion zone.

- Avoid contact with people and equipment exposed to the lab location.
- Have EMS respond - advise them of the hazardous material risks.
- Have Police respond - ask them to contact the *Integrated Drug Unit* for assistance.
- Establish emergency decontamination facilities.
- Decontaminate all responders, residents and members of the public exposed to the lab and smoke from the burning building, vehicle or site.
- Decontaminate all equipment and apparatus that was exposed.
- Ensure any that any person who may have been exposed seeks medical attention.
- Treat runoff water as hazardous material.
- Ensure security at the fire scene – prevent all access until Police take over the scene.

Hazards

Clandestine methamphetamine labs are dangerous places. Fires may flare-up unexpectedly. Explosions are a very real risk. Lab operators may set booby traps. But the biggest danger from meth labs is to health. The chemicals used and produced in a lab can kill, cause immediate serious injuries as well as damage long-term health. The drug itself is highly addictive, even through casual contact. Anyone exposed to a meth lab should seek medical attention, even if they have no immediate injuries or symptoms.

Decontamination

Drug labs are haz-mat sites. Smoke, runoff from fire fighting water, exposed equipment and apparatus must all be treated as hazardous materials. There is no single decontamination approach that works for all the hazardous chemicals that might be in use at a clandestine lab. Common decontamination strategies involve washing off contaminants with water, solutions of bleach or with liquid soap. The problem with some of the chemicals found at drug labs is that they react violently with water. Others create toxic fumes when exposed to bleach. Expert help is needed to identify the chemicals in use at any particular lab and the correct decontamination strategies. The provincial *Integrated Drug Unit* has that expertise. Police can contact the *Unit* anytime, day or night. They can offer advice over the phone and provide guidance once they arrive on-scene.

If a department is not trained and equipped for the haz-mat risks at a meth lab incident, there are still actions that can be taken to provide a degree of effective decontamination. It is important to remember that any person or equipment exposed to potential contamination must be isolated and thoroughly decontaminated when the proper information and expert advice is available.

Emergency Decontamination

- Create haz-mat hot and warm zones.
- Isolate personnel and equipment requiring decontamination in a safe area of the haz-mat hot zone.
- When ready, move personnel into the haz-mat warm zone and use water from a hose-line to wash off protective clothing and equipment thoroughly. Contain run off water. Treat run off as hazardous material.
- Have dry sand or other neutral absorbent material available to control any violent chemical reactions with water. Treat used absorbents as hazardous material.
- Remove and isolate protective clothing and equipment – treat as hazardous material.
- After protective clothing and equipment has been removed keep personnel in the haz-mat warm zone.
- Seek expert advice from the provincial *Integrated Drug Unit*. Follow their recommendations for further decontamination.
- Have personnel who have been in the haz-mat hot zone or have been exposed to potential contamination seek medical advice after complete decontamination.

By far the safest approach is to prepare for decontamination at a drug lab incident well in advance. Your department should develop Standard Operating Procedures, get the equipment and supplies needed and train to use them. If you can not develop your own decontamination procedures, establish mutual aid agreements with departments that have complete haz-mat decontamination capabilities.

Decision Flowchart

The OFC has developed a Decision Flowchart to help incident commanders manage fireground operations at clandestine drug laboratories. The flowchart details the recommended actions to be taken in an easy-to-follow “Yes – No” format. Departments can modify the flowchart to conform to their existing SOP’s and include the flowchart as part of any new procedures they develop. (See flowchart on page 5)

Conclusion

Departments need to establish procedures for responding to clandestine drug laboratories. The companion document to this Commentary, - “*Clandestine Drug Operations – Methamphetamine Laboratories and Marijuana Growing Operations*” goes into detail about the ways of identifying meth labs, the hazards they present and suggested fire fighting procedures. The document also contains recommendations for developing SOP’s for response to clandestine drug laboratories and descriptions of the hazardous chemicals found at meth labs. This discussion document can be downloaded from the OFC web site at: <http://www.cps.gov.sk.ca/Safety/fire>.

Fire Response Decision Flowchart

