

Steps Before Using Buildings to Train

By Douglas Rooks

The scene is common across the state: A municipal fire department gathers to burn down an abandoned house, in the process learning about structure fires in a way volunteer departments may get to do only a few times a year.

Live burns are vital tools for firefighter training, according to fire chiefs across the state. But houses and other structures donated for training must be checked out carefully, or fire departments could run afoul of state and federal laws, and even be faced with expensive cleanups.

Bryan Calderwood, South Thomaston fire chief and an instructor at Southern Maine Technical College, said there are two must-read documents for any departments thinking about conducting a training burn: the National Fire Protection Association's Regulation 1403, and the Maine Department of Environmental Protection's rule summary.

The former covers issues such as certifying ownership of the property being donated, and whether insurance has been removed from the property. That's important because the holder of an insured property could conceivably try to collect damages. The fire department will also need a demolition permit that covers the exact date and time of the burn.

DEP rules cover the environmental hazards that could exist in an abandoned building. Two of the most difficult to contend with, according to Louis Fontaine, a compliance manager in DEP's Bureau of Air Quality, are asbestos and lead paint.

"The assumption is that any build-

ing constructed before 1978 may have lead paint," Fontaine said. "Asbestos content varies a lot but it's often present and has to be dealt with."

CHECK THINGS OUT

Most fire departments that accept buildings for training burns require hazards to be mitigated by the owner first, said Freeport Chief Darrel Fournier. "The building always has to be checked out first," he said. "We won't accept a structure that has hazards or needs remediation."

Owners are often willing to take those steps because fire can be an efficient and rapid way of disposing of an unwanted structure – and, except for fire training, burning for such purposes is not legal in Maine.

"It's really the cheapest method of disposal, most of the time," said South Thomaston's Calderwood.

In Freeport, Fournier said the fire department and neighboring mutual aid departments have burned nearly 40 buildings over the past 20 years in training exercises, although there's been a short supply recently. Many abandoned buildings are being replaced by their owners with something better on the same lot, and with the housing slump, opportunities have been scarce, he said.

"We're looking at a garage and attached one-story structure now," he said. It's the first one that's been offered in two years – and it's small enough so only Freeport firefighter training can be accommodated."

Casco Fire Chief Jason Moen said small departments like his may only fight a structure fire four or five times a year, which may involve anything from a single room to an entire house being engulfed.

While training simulations can be helpful, there's really nothing like an actual fire to learn the trade. "You can't simulate crawling into a dark smoky room, and dragging a hose up several flights of stairs," Moen said. "You have to learn by doing."

An actual fire, for instance, allows firefighters to get the right balance of water on the flames. Too much, and the thermal balance can be upset, creating "hot spots" at other levels of the building.

Calderwood agrees, and said live training is particularly helpful at coordinating mutual aid units.

'FAMILIAR FACES'

"We may not see each other for months, except when we're responding in an emergency," he said. A training burn helps departments explore different ways to collaborate and use various equipment to best advantage. Said Calderwood: "It just works better when we're dealing with familiar faces."

But first the building has to be suitably prepared. Though word is getting around about the state rules and national regulations, not everyone has heard. Louis Fontaine recalls following up on one training burn where firefighters apparently hadn't noticed piles of chicken manure stored in the basement.

"It burned for three months," he said. "And people at the elementary school next door weren't exactly pleased."

Notifying neighbors is also important. Notices that specify that traffic may increase, especially for mutual aid exercises, should go out first. Rick Perkins, a specialist in the DEP regional office in Portland, also recommends

Douglas Rooks is a freelance writer from West Gardiner and regular contributor to the Townsman, drooms@tds.net

going door to door a day or two before.

"People will want to know that it's not a good day to hang out laundry, for instance, and that they might want to keep pets indoors," Perkins said.

The permits DEP supplies for training burns can be revoked if valid complaints from neighbors are received. Perkins said DEP has compared notes with Maine Forest Service rangers and it applies the "four corners" rule when evaluating whether it's a nuisance complaint or something legitimate.

"If the smoke is contained within the four corners of the property, that's OK. But if it's going onto neighboring properties, they'll have to shut it down," he said.

If neighboring homes or businesses are very close to the structure, the fire department may have to pass, Perkins said.

Chief Fournier said that does happen. "We can't accept them all. There are some we have to turn down if the hazards can't be mitigated."

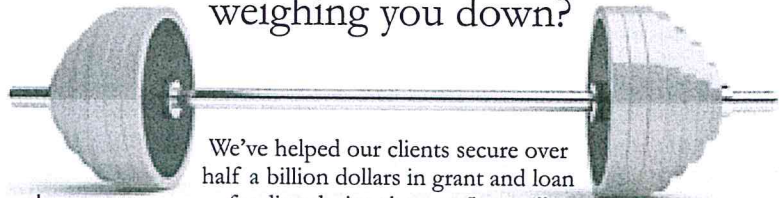
LEAD CAN PROVE COSTLY

The consequences for not following the rules can be severe. Paula



Firefighters practice on a "car fire." (Submitted photo)

Are municipal demands
weighing you down?



We've helped our clients secure over half a billion dollars in grant and loan funding during the past 5 years."

Your Municipal Consultant for over 30 years



800.426.4262 | woodardcurran.com

Got Brush, Yard Waste & Trees?



Attention Municipalities,
Cities & Towns...

Oldcastle Lawn & Garden in Poland Spring...your best local source to dispose of brush, yard waste and trees.

- No out of pocket costs
- No need for grinding leaves
- No cost for removal (large loads)

Let us help you keep your site clean!
Annual removal available with just a phone call!



Oldcastle
Lawn & Garden
461 Springwater Road
Poland Spring, Maine 04274

Please contact:

Aaron Boone 207-557-8218 or Kerry Varney 207-754-3671

Clark, director of the DEP's Bureau of Solid Waste, said there have been incidents where high lead levels were found in ash from a training burn. In those cases, "It had to be disposed of as hazardous waste and that can be very expensive," she said. Costs can run into the thousands of dollars.

Clark said most fire departments seem aware of the rules but the DEP continues to get complaints, some of them well founded. "It's like any aspect

of the law," she said. "Some are better at complying than others."

Stripping down a target building does not have to be unduly complex. In general, asphalt shingles and vinyl siding should be removed. In older structures, lead paint is often concentrated on window casings and trim, with wallpaper used elsewhere, so removing windows and using separate disposal for them can solve the prob-

lem.

When in doubt, though, do testing, Louis Fontaine said. Asbestos can present knottier problems. "You'll need a qualified technician if it needs to be removed. Not just anyone can remove asbestos. It's easy to make the problem worse," he said.

On the other hand, "We try to be flexible. We know that firefighters may encounter this material when they

ONLINE RESOURCES

Further information is available online at:

NFPA website: www.nfpa.org/aboutthecodes/AboutTheCodes.asp?DocNum=1403

DEP rules on live fire training: www.maine.gov/dep/waste/solidwaste. See under "Guidance." The informative document is entitled: "Guidance and Checklist for Live Fire Instruction and Training Activities."

MUNICIPAL RESOURCES, INC.

•Relevant Experience

•Effective Solutions

•Valuable Results

MRI has been providing solutions to local governments and educators for 20 years. Our team of experts is able to provide the following services custom fit to the needs of your community:

- Organizational, Management, and Efficiency Studies
- Professional Recruitment
- Consolidation/Regionalization Studies
- Finance Support/Internal Controls Assessments
- Interim Staffing
- Assessing
- Wage & Salary Studies
- Community & Economic Development
- Emergency Response Planning



120 Daniel Webster Highway
Meredith, NH 03253
(603) 279-0352
www.municipalresources.com

NEED TAX BILLS PRINTED AND MAILED?

NEED SEWER BILLS PRINTED AND MAILED?

NEED WATER BILLS PRINTED AND MAILED?

NEED RUBBER STAMPS?

WE CAN DO IT ALL FOR YOU IN-HOUSE!

THE
SNOWMAN
PRINTING • BIDDING • STATEMENT PRINTING • BANNING SERVICES
GROUP

Tax Bills • Sewer Bills • Water Bills • Town Reports • Newsletters • Printing & Mailing

1 Printer's Drive • Hermon, ME 04401
Toll Free 1-800-675-7669 • Fax 207-848-7400



respond," Fontaine said. For instance, DEP may allow vinyl siding to remain on one side of a building so firefighters can learn how to handle it during combustion.

In the end, though, health and safety protections are vital. "Firefighters get exposed to a lot of nasty stuff," Fontaine said. "We don't want to add to that problem."

Electrical wiring can generally be left in the structure. "We're not expecting them to go through and take apart every interior wall," he said.

Due diligence requires that all fuel tanks be emptied and removed, along with appliances, and that no liquid fuels are present anywhere on the premises.

BE PREPARED

Despite the challenges, the fire chiefs say the effort is worth it, and that the formula for successful training is to be prepared.

"We have to follow our own rules, such as two in, two out," said Jason Moen. "Plus, we'll have at least two observers inside to evaluate the work and report back to the others."

Training burns allow studying particular techniques that may not have been used before. Noting the lack of volunteers many departments are experiencing, including Freeport's, Fournier said the latest training burn will use exterior techniques to quell the blaze.

"We may not always have the manpower to enter the building the way we want," he said. "Plus, it's hazardous. We'd like to see whether an exterior approach can be as successful."


Often, a structure can be used for a half-dozen different exercises, room by room, or wall by wall. The final burn is quick. "It usually takes an hour or an hour and a half to turn it into ashes," Fournier said.

He said the Southern Maine Fire Academy has a mobile trailer that can be used for training exercise. "But it's small, and it can only show you so much." For a full look at what a firefighter needs to know, "There's really no substitute for a full-sized structure."

Moen said fire safety awareness, plus better construction materials, has reduced the number of serious fires departments face.

"But you're never going to elimi-

nate the human factor," he said. "People will still mishandle hot ashes. People will still not properly dispose

of smoking materials. And for those occasions, firefighters need to be trained and ready." 

TRAINING: BURN PADS MAY REPLACE ACQUIRED BUILDINGS

While the "live fire" exercises involved in burning abandoned buildings can help beginning firefighters learn, and keep veterans sharp, they may become more the exception than the rule in years to come.

Bill Guindon, director of the Maine Fire Service Institute (MFSI) at Southern Maine Community College's Brunswick campus – the state's designated fire training center – says acquired buildings aren't used in any of its classes.

There are several reasons. One is that "we can't legally acquire a building the way municipalities can," Guindon said. But there are other issues that may lead to a decline in the number of such practice burns, in Maine as elsewhere.

"It takes a lot of time and resources to properly prepare a building," Guindon said, "and you never know exactly what you're going to find."

A municipal department may set up for, say, 10 practice burns and then find that on the second one, the entire building goes up in flames.

"The lack of fire stops in old buildings can mean they burn a lot faster than you expect," he said.

The required removal of asbestos and other hazardous materials means it's a bigger job to prepare for a burn, though Guindon is all for such precautions. "It's all about safety," he said. "We have to make sure that all training exercises are as safe as we can make them."

For MFSI, that means using burn pads rather than structures, for the most part. Ignition is created by hay or straw on pallets, the same method used by municipal departments. Gasoline or diesel accelerants, once commonplace, are no longer allowed. Through the use of reflective tile and other techniques, the burn pads can realistically create some of the hazards firefighters will face in burning buildings, including dense smoke.

There are training burn pads in Caribou, Bangor, Ellsworth, Wiscasset, Auburn, Yarmouth and Hollis. MFSI has nine full-time instructors and 100 contract instructors, training 2,000-3,000 firefighters a year.

Guindon said he supports chiefs who still prefer full-structure training. "We'd never try to limit what training opportunities communities can offer." But he said it's important to be aware of the risks.

"Live fire exercises have caused serious injuries and even fatalities" elsewhere, he said. "Making sure it's safe is always the first priority."

Douglas Rooks

OLVER ASSOCIATES INC.

ENVIRONMENTAL ENGINEERS

- Wastewater Process Engineering
- Treatment Facility Upgrades
- Sewer Infrastructure Design
- Stormwater Management
- Operations Assistance & Training
- Municipal & Civil Engineering

P.O. Box 679
290 Main Street
Winterport, Maine 04496

Telephone: (207) 223-2232
Fax: (207) 223-5448