

Defending a Home Explosion

By Dave Dahlmeier and Paul Rutman

Your quiet afternoon is shattered by a phone call that informs you of a large explosion involving your insured.

What is the priority? What do you do and whom do you call? Whether this is a first party loss or a possible third party liability claim, there are steps you should take to preserve evidence and protect the rights of your insured. Hopefully you have prepared for this occasion and have relationships with people who are ready to assist.

Once you have the basic facts, make contact with the proper attorney (defense or subrogation). A joint strategy should be developed to get the appropriate people to the scene and to begin the investigation. Your strategy should include the use of NFPA 921,

54 and 58. These are published by the National Fire Protection Association (NFPA) and are increasingly becoming a crucial reference for both the expert and attorney.

NFPA 921: Guide for Fire and Explosions Investigations, has become the prevailing authority for the procedures to be followed in the investigation of fire and explosion incidents. Following the guidelines of NFPA 921 will help avoid actions that may prejudice the ability to defend any possible negligence of your insured. The scene will need to be secured and preserved. This will help to prevent the loss of or spoliation of the evidence. This will also provide you with step-by-step procedures on joint examinations, destructive testing and sampling,

which are common to a majority of gas explosion investigations.

Secure the Scene

First secure the scene and hire the proper experts (origin and cause, engineer, etc.). Then an understanding of possible claims against your insured will need to be developed and countered. Consider the example of a gas supplier who provides gas service to a residential customer. This service involves periodic delivery of bulk gas to tanks on the customer property.

The most common allegations in this type of situation include a variety of the following:

- ◆ *Failure to conduct a leak check*
- ◆ *Improper/out-of-date regulators*
- ◆ *Lack of odorant/odor fade*



- ◆ *Failure to warn*
- ◆ *Lack of gas detectors*
- ◆ *Improper piping or other equipment*

In addition to applicable statutes and common law in the jurisdiction, your reference points to determine duties of your insured and to guide your activities to defend your insured will be found in NFPA 54, which covers minimum safety requirements for the design and installation of fuel gas piping systems in homes and other buildings, and NFPA 58, which covers design, construction, installation, and operation of LP-Gas systems including piping, equipment, containers, venting, and highway transportation of LP-Gas. Since there was an explosion, it is very likely there was a leak in the system. Take a quick look at each

possible allegation and see what is needed to properly defend.

Conduct a Leak Check

NFPA 54 Section 8.2.3 Leak Check: Immediately after the gas is turned on into a new system or into a system that has been initially restored after an interruption of service, the piping system shall be checked for leakage.

Scenarios where this may occur include a call where the customer has run out of gas, a situation where the gas is turned off for the summer or where the system is depressurized when an appliance has been repaired or replaced. It would also include a call received in which the customer indicates that they smell gas or that they are burning too much gas. In all of these

situations it is imperative that the gas supplier conduct a leak check. The leak check should be performed in the manner described in NFPA 54, which includes pressurizing the system for a period of time and monitoring the pressure. This should be documented with a form and, ideally, signed by the customer.

Obtain the customer file and look for indications whether a leak check should have been conducted and the proper documented form to verify that it was done. Interview the delivery driver to determine exactly what took place and what actions were taken by the driver. Evaluate whether your insured's conduct met the requirements of the gas code. If not, did that conduct contribute to the cause of the explosion?

Improper/Out-of-Date Regulators

NFPA 54 Section 5.8 Regulators: This section deals with types of regulators that are required and their placement in a system.

Many older systems have single regulators and outdated regulators. While these systems may be grandfathered, it does not look good to a jury when there is a leak in the system and there is a 50-year-old regulator and it is single stage. Plaintiffs' experts will claim the regulator does not meet current standards and, even if it does, the jury will get to hear that the gas supplier did not replace outdated regulators because, according to plaintiffs' attorney, it put costs above safety.

Be prepared to produce documents regarding policies on regulator replacement and any notes of meetings when this was discussed. Any cost studies will be discoverable. Determine what effect, if any, the outdated or improper regulator had on the system and whether it caused the leak. Have the regulators tested on site.

Lack of Odorant/Odor Fade

NFPA 58 Section 4.2.1 All LP-Gases shall be odorized prior to the delivery to a bulk plant by the addition of a warning agent of such character that the gases are detectable, by a distinct odor.

The supplier is still charged with the duty to verify the presence of odorant. Delivery drivers should check for odorant prior to beginning their delivery route. If there is an explosion in a residential setting and people are home, a lack of odorant or insufficiency of the amount of the odorant will be alleged. You may also be faced with an allegation of odor fade, which is a phenomenon caused most often by water and rust in the tank over time. Often if there is plenty of odorant in the gas this will be one of the allegations. Many experts will testify that some people are unable to smell the gas or they

have been desensitized to the odor. Have the appropriate expert conduct tests on the gas remaining in the tank to verify that it has sufficient odorant.

Failure to Warn

This is another favorite allegation of plaintiff attorneys. It is their belief that every gas supplier has the duty to make sure all customers (and even non-customers) are fully educated on the dangers of propane. This includes how to know if there is a leak, what to do and, more importantly, what not to do, and all properties of the gas. Most suppliers use a brochure published by P.E.R.C (Propane and Education Research Counsel). Some of these include scratch and sniff areas to familiarize the consumer

opine that these are essential and should be required for all gas customers. Reasons range from odor fade, confusion over the smell of the gas and becoming desensitized to the smell. The PERC brochure does mention gas detectors, but that is not sufficient for experts and plaintiff attorneys.

Determine if the supplier sells, recommends or provides information on gas detectors.

Improper Piping/Equipment

NFPA 54 Chapter 5 Gas Piping System Design, Materials, and Components, NFPA 54 Chapter 7 Gas Piping Installations and NFPA 58 Section 5.9.3 Pipe and Tubing contain regulations relating to these elements of the gas system.

There are requirements for types of piping that can be used for different installation methods. This will be dependent on whether they are above or below ground, what they hook up to and atmospheric conditions. The supplier is responsible for a survey of the area prior to filling a tank. Failure to make note of conditions such as uncoated steel pipe running under a sidewalk or polyethylene piping running above ground (sunlight can degrade) and still filling the tank will be an allegation that you will have to deal with. Focus here will be proving that the site conditions had nothing to do with the explosion.

While this is not a comprehensive list of probable allegations or ways to defend against them, it is intended to at least provide areas of thought to help develop a defense strategy. Being aware of what plaintiffs and plaintiff's attorneys may allege, can help to evaluate and discover weak points to avoid being surprised during discovery or settlement negotiations. [LM](#)

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with the smell of gas along with a list of things to do if gas is smelled and information on gas and gas detectors. Beware that even if you can prove that your supplier sent these brochures to their customers on a yearly basis, the contents of the brochure will still be attacked and labeled inadequate.

Obtain the mailing list with proof of mailing of the brochure to the involved customer. Determine the substance of any conversations about propane safety the delivery driver had with the customer.

Lack of Gas Detectors

There are no regulations that require a gas supplier to supply, sell or require gas detectors before delivering gas. Many experts will

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