Excising a Health Risk

It's only a matter of time before OSHA further limits formaldehyde exposure. The time to look into formaldehyde-free products is now.

ome people read tea leaves, which is known as tasseography. Others read stock quotes or great books. As NFDA environmental compliance counsel, I read technical scientific studies about formaldehyde health risks. I am informed about federal and state environmental laws and regulations restricting wastewater and medical and hazardous waste disposal, laws governing recycling and those permitting air emissions from crematories. I study OSHA pronouncements about workplace safety and proposals for changing chemical standards and management practices. I make it a point to keep current on developments in my field, including sustainability. I consider what I read from the perspective of its impact on the safety and well-being of NFDA members and their compliance with federal and state environmental and health and safety laws.

And yes, all that I read and the insights I have as environmental counsel confirm that formaldehyde-free embalming fluids may be a valuable addition to a funeral director's repertoire.

1. Formaldehyde-free embalming products serve an important risk reduction function in embalming.

While some funeral directors are quite sensitive to formaldehyde and others are not, there is no dispute that formaldehyde poses a health risk. Domestic and international cancer agencies have concluded that there is a connection between exposure to formaldehyde and some forms of cancer, including myeloid leukemia in funeral directors. Surveys of embalmers and anatomists who are potentially exposed to formaldehyde in their work have suggested that those working in the funeral service profession are at an increased risk of leukemia and brain cancer compared with the general population.

In 2006, the International Agency for Research on Cancer classified formaldehyde as a human carcinogen. In 2011, in its 12th Report on Carcinogens, the National Toxicology Program (NTP), part of the U.S. Department of Health and Human Services, concluded that formaldehyde is a known human carcinogen. The NTP determined that formaldehyde exposure can irritate the eyes, skin and throat and that there is a link between exposure to formaldehyde vapor and nasopharyngeal cancer, a type of leukemia that affects the back of the throat. Epidemiological studies of funeral directors, embalmers and pathologists were considered in reaching the formaldehyde carcinogen finding.

A National Cancer Institute case-control study among funeral industry workers found an association between increasing formaldehyde exposure and mortality from myeloid leukemia. For this study, carried out among funeral industry workers who had died between 1960 and 1986, researchers compared those who had died from hematopoietic and lymphatic cancers and brain tumors with those who died from other causes. (Hematopoietic or hematologic cancers such as leukemia develop in the blood or bone marrow. Lymphatic cancers develop in the tissues and organs that produce, store and carry white blood cells that fight infection and other diseases.) This analysis showed that those who had performed the most embalming and those with the highest estimated formaldehyde exposure had the greatest risk of myeloid leukemia. There was no association with other cancers of the hematopoietic and lymphatic systems or with brain cancer.

A July 2015 report published in the Journal of Neurology, Neurosurgery and Psychiatry recommended further study of the relationship between formaldehyde exposure and amyotrophic lateral sclerosis (ALS), also known as Lou Gehrig's disease. The study posited that male funeral directors who are routinely exposed to formaldehyde in the preparation room may be more likely to develop ALS as compared to individuals never exposed to formaldehyde. This recent report identifies yet another possible connection between formaldehyde and health risk for funeral directors.

While formaldehyde exposure in the preparation room can be reduced by effective ventilation and following NFDA's Formaldehyde Best Management Practices, using formaldehyde-free embalming products is worthy of consideration as a significant means of eliminating formaldehyde exposure risk.

2. OSHA will change how it limits formaldehyde exposure, setting more stringent standards and/or imposing restrictive work practices.

Don't be surprised when OSHA proposes new, more restrictive Person Exposure Limits (PELs) for formaldehyde and/or mandates specific work practices for controlling formaldehyde exposure.

Formaldehyde exposure in the preparation room currently is subject to a PEL issued more than 45 years ago, which, by most accounts, is now considered outdated and not sufficiently protective. Since the formaldehyde PEL was issued, formaldehyde has been labeled a carcinogen. Dr. David Michaels, OSHA head, who has publicly called the formaldehyde standard weak, has been quoted as saying, "OSHA's chemical exposure levels require revision" and "currently, workers can be exposed to levels of a chemical that are considered safe under OSHA but are still dangerous."

In October 2014, OSHA announced that it was reviewing how it manages chemical exposures in the workplace and requested stakeholder input about "more effective and efficient approaches that address the challenges with the current system." OSHA stated that it will consider updating PELs and will examine other strategies to address workplace conditions in which workers are exposed to chemicals.

These pronouncements clearly foreshadow OSHA's recipe for regulatory change, and change of this type typically impacts small businesses, including funeral directors, in a disproportionate way, mandating potentially expensive changes to the way business is conducted, as well as in increased recordkeeping, employee training, etc. OSHA is on record as saying, "The best way to control exposure to formaldehyde is to use products that do not contain formaldehyde." Following OSHA's admonition and using a product that does not contain formaldehyde may provide a means that both enhances safety in the preparation room and reduces regulatory costs to comply with more restrictive PELs or mandated work practices. Trying formaldehyde-free products now before more stringent formaldehyde regulations become effective is a useful first step in assessing how to respond and build flexibility into compliance with OSHA regulatory changes.

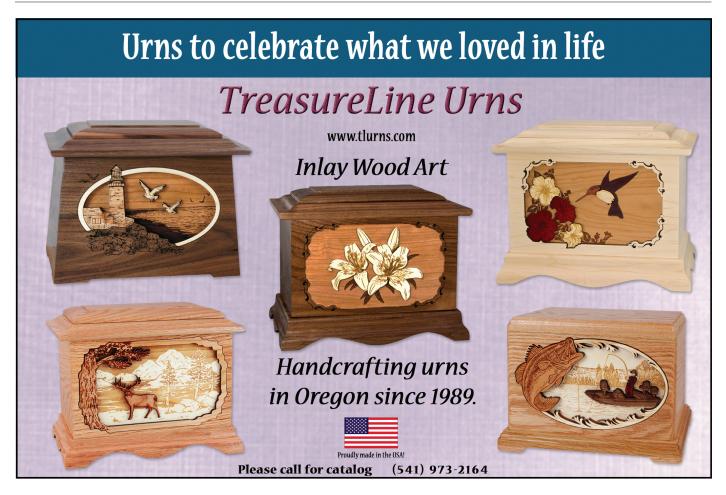
3. NFDA has a long history of supporting the substitution of environmentally friendly embalming products.

Since issuing the Wastestream Audit nearly 25 years ago, NFDA has urged funeral directors to periodically re-evaluate the products they use in the preparation of remains and to substitute environmentally friendly products as they become available. Product substitution, the process of identifying, developing and using safer chemicals, is a well-recognized method for eliminating risk from hazardous chemicals, enhancing workplace safety and reducing chemical releases to the environment. Substituting formaldehyde-free embalming products is encouraged by both the National Academy of Sciences and OSHA.

The National Research Council of the National Academy of Sciences has issued a guide establishing a process for identifying alternative chemicals that will be safer and have reduced environmental impact compared to existing chemicals. The goal of substitution, after all, is to make sure that chemical alternatives are, in fact, safer and less toxic than the chemicals being replaced; that the chemicals work, i.e., that they are technically feasible; and that their cost is economically reasonable.

The point is that substitution entails more than simply replacing a chemical of concern. The National Academy designed a framework to conduct this evaluation and support decision-making about alternatives to chemicals of concern. The goal of a chemical alternatives assessment is to facilitate an informed consideration of the advantages and disadvantages of alternatives to a chemical of concern. While domestic and international regulatory agencies initiated efforts to drive adoption of safer chemicals as early as the 1950s, it is most recently that the agencies have collected information on chemicals of concern and designed and advocated approaches to an informed substitution decision.

In its October 2014 announcement, OSHA also asked stakeholders to provide information about informed plans for chemical substitution, noting: "An



important aspect of risk assessment and risk management is consideration of safer alternatives, which can often result in a path forward that is less hazardous, technically feasible and economically viable." It added: "The reduction or elimination of a hazard at the source... is not only the most reliable and effective control approach but also provides a number of benefits for workers and businesses." OSHA acknowledged that in order to protect workers from chemical hazards in a meaningful way, a dual approach was required: 1) developing appropriate health standards for hazardous chemicals and 2) understanding alternatives to regulated chemicals and supporting a path forward that is "less hazardous, technically feasible and economically viable. Informed substitution provides a framework for meeting this goal."

That both the National Academy and OSHA are holding out product substitution as a means of reducing chemical hazards signals the importance of this concept. The support of these two organizations for product substitution provides an incentive for considering the substitution of formaldehyde-free products.

4. Today's memorialization practices, the shorter period between death and memorialization, and consumer interest in green products and practices create a niche market

for formaldehyde-free embalming products.

Families today are seeking an alternative to formaldehyde embalming products for their loved ones. More American consumers are green, conscious of the environment and aware of chemical risk and want funeral directors to be informed about and have experience using formaldehyde-free embalming products. A funeral director's familiarity with and use of formaldehyde-free embalming products produces a competitive edge because that skill may well differentiate the funeral director from others not familiar with formaldehyde-free products. A family may make this skill a criterion for the selection of a funeral home.

5. Training in product use and performance would help the funeral service profession know if, when and how best to use formaldehyde-free products.

New products in any field can be unfamiliar; that is certainly the case with formaldehyde-free products in funeral service. To be inclined to use these products – beyond the four reasons identified here – funeral directors must understand what they can expect from the product in terms of preservation, disinfection and tissue fixation for restoration. After all, it is the funeral director's craft, his or her reputation and a personal sense of responsibility

to the family that are on the line each and every time remains are embalmed.

Do mortuary schools offer courses in the use of formaldehyde-free products? Do the product suppliers offer seminars and training on product use? Are there handbooks available that describe how to adapt traditional embalming techniques to the use of formaldehyde-free products? Answers to these questions and others will increase the familiarity of the funeral service profession with formaldehyde-free products and enhance their use. *

Carol Green has served as NFDA's environmental compliance counsel for more than 25 years. During that time, she has guided NFDA and individual funeral directors on the complex environmental issues faced by funeral directors. On NFDA's website (www.nfda.org; click on the Resources tab and then Compliance and Legal), you will find environmental fact sheets and guidance documents that Green has helped to develop. She can be reached at 301-941-8038 or cgreen@carolgreenlaw.com.

If members have questions about NFDA's advocacy efforts or would like to suggest support for a pro-funeral service candidate or member of Congress, contact Lesley Witter, NFDA senior vice president of Advocacy, at lwitter@nfda. org or 800-228-6332.

