

Cremation Association of North America
Statement on Alkaline Hydrolysis
Adopted by the board of directors on February 8, 2013

Revised on February 15, 2018

Background

The Cremation Association of North America (CANA) defines cremation in the following manner: A suggested definition of cremation is the: *"The mechanical and/or thermal or other dissolution process that reduces human remains to bone fragments."* Cremation includes the processing and usually includes the pulverization of the bone fragments.

This definition covers a variety of technologies that may be applied in order to achieve reduction to bone fragments, including traditional flame-based cremation, calcination and alkaline hydrolysis.

Alkaline hydrolysis is a water-based dissolution process for human remains that uses alkaline chemicals, heat, and sometimes agitation and/or pressure, to accelerate natural decomposition. Human remains are placed in a chamber with an alkaline chemical and water mixture and may be subjected to heat, pressure and/or agitation. Depending upon the equipment and the temperature employed, the process may take 3.5 to 18 hours, leaving bone fragments, prosthetics and a sterile liquid. The liquid is considered a sterile wastewater, which is discharged with the permission of the local water treatment authority and in accordance with federal, state, provincial and local laws.

Suggested Guidelines

Many states and provinces have legalized alkaline hydrolysis as a method of disposition and the text of these laws and regulations are worth consulting. When considering legislation or regulation concerning alkaline hydrolysis, it is important to understand that current cremation laws and regulations may be sufficient to address matters including, but not limited to transportation, storage, identification, authorization or disposition. Differences lie in the equipment used, the technological processes and interaction with municipal agencies. CANA outlines three guidelines for consideration in new and revised regulation and legislation:

- For the regulation of the alkaline hydrolysis equipment and technology, CANA defers to authorities such as the United States Centers for Disease Control and American Society of Mechanical Engineers to set standards.
- State and provincial regulatory authorities that govern cremation providers should be authorized to regulate and license alkaline hydrolysis providers. Additionally state, provincial and other municipal authorities that will govern alkaline hydrolysis will need to participate in the development and enforcement of these regulations.
- The end product from the various cremation processes is similar in physical appearance thus encouraging the perception among the public that the technologies are the same. CANA

encourages the disclosure on authorization forms and/or death certificates as to which technology is being used.

- The alkaline hydrolysis process generally produces as much as 30% more cremated remains than traditional cremation. This should be disclosed to the public and the necessity of arrangements for a larger sized urn or multiple urns or niches.
- Procedures for scattering need to be addressed to reflect the difference in color and buoyancy of hydrolyzed cremains to float in water for an extended period of time. UCLA has conducted numerous studies on the chemical composition of hydrolyzed remains that can be made available upon request. CANA continues to monitor these developments and will be making recommendations for scattering on land and at sea in the near future.