

Natural Water Cremation, the Eco Alternative, Explained

By Nicki Mikolaj, sales manager, Resomation America

With over 2.8 million registered deaths in the United States each year, the death-care industry must continue to evolve and adapt to accommodate numbers. Thanks to environmental activists like Greta Thunberg, we are all more aware of climate change and the effect we have on the planet, in both life and death.

I believe green trends will influence the cremation industry this year as customers become increasingly particular about being sustainable after death. As a result of this growing environmental awareness, processes like water cremation, also known as alkaline hydrolysis, are growing in popularity as a green alternative to burial and flame cremation. But what is natural water cremation and how green is it?

The Process

Water cremation, is a gentle end-of-life body disposition option that uses water instead of a flame. This quiet and peaceful procedure uses 95% water and a small amount of potassium hydroxide (5%) to reduce the body to its basic elements of bone ash.

The body, dressed in a silk or woollen shroud or coffin, is placed in our high-pressure chamber called the “Resomator.” Water and potassium hydroxide are added and then heated to 302 degrees. Under high pressure, this alkaline solution works to speed up the decomposition process to just a few hours.

Once the cremation is complete, the bones are removed, dried, and pulverized. Due to the gentle nature of this process, the end result is

about 30% more cremated remains compared to flame, and these remains have a pure white, talc-like consistency, which can be given back to the family in an urn.

This method is a greener way for both the family and the deceased to bid farewell.

Not every state considers it cremation and there’s a debate around the terminology. In 2010, the Cremation Association of North America’s board of directors voted to expand the association’s definition of cremation to include processes like alkaline hydrolysis. The primary rationale for this was that state and provincial laws were already in place that determined alkaline hydrolysis could be marketed as cremation. From the consumer’s perspective, the processes and results are similar.

This process is either permitted or imminently going to be made legal in the following U.S. states – Oregon, Missouri, Minnesota, Maryland, Maine, Kansas, Illinois, Florida, Colorado, Georgia, Wyoming, Idaho, Nevada, North Carolina, Utah, Alabama, Connecticut, Vermont, California, and Washington.

There are several thousand families in the U.S. who have chosen water cremation through Resomation since

2012 as an end-of-life option. Many of the families cite the reason for selecting water cremation as it is seen as gentler than flame as well as the clear environmental credentials.

The Heritage

Resomation, part of LBBC Group, is a fifth-generation U.K. technology company with a 144-year pedigree in engineering innovation, that is championing natural water cremation.

Resomation America was set up as a U.S. subsidiary of Resomation Limited in 2018 to support its existing installations across the states, dating back to 2012. By this summer, Resomation will have installations in a number of medical schools and funeral homes in the U.S.

Going Green

Water cremation uses significantly less energy than flame cremation, reducing harmful emissions entering the atmosphere and providing a more environmentally friendly alternative to flame. Coupled with this, there is a distinct lack of space for cemeteries, and from an economic perspective, the costs of burial are going up for the customer, while the price of cremation is falling.

Overall, the process uses 90% less energy than traditional cremation. With no poisonous airborne emissions and low energy consumption, this innovation could help the funeral industry in the U.S. improve its environmental credentials.

It could also help prevent the release of further dangerous particles such as nitrous oxides, mercury from dental amalgam and dioxin emissions into the atmosphere. Furthermore, medical devices like pacemakers do not need to be removed prior to water cremation. All metals and plastics that are contained in the body are left intact after the process and can then be removed and responsibly recycled.

The Waste Water

When the water cremation process is complete, the remaining water, or

effluent, is then assessed and treated before being acceptable for discharge into the local water treatment system. This effluent is a treatable organic liquid. It's clean, sterile and contains no DNA or harmful components – making it completely safe to enter the water treatment system. The treated water can flow into rivers and the nutrients can be returned to nature.

Why the Demand?

Flame cremation continues to increase in popularity, which means more and more harmful toxic emissions are being released into the atmosphere. In addition, land for burial is running low in many densely populated cities. There is an increasing need and demand for more environmentally sustainable alternatives at the end of life.

Around the world, people are already shifting their behavior when it comes to end-of-life options. Whether it be natural burial, human composting or natural water cremation – the public is looking for more environmentally sustainable choices in death. This is why the U.S. funeral industry is responding and continues to modernize to meet the demands of its consumers.

Working with Funeral Directors

Natural water cremation offers funeral homes, crematories, and cemeteries an opportunity to reach new cultural groups and expand their service offering. Funeral businesses can now differentiate themselves in the marketplace by offering a new and innovative end-of-life service. •



Nicki Mikolai in front of the “Resomator” where the water cremation process takes place. (Photo courtesy of Resomation America)