NATIONAL FUNERAL DIRECTORS ASSOCIATION

MODEL GUIDELINES FOR STATE REGULATION OF ALKALINE HYDROLYSIS

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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 a strong alkaline chemical and water mixture that is then subjected to heat and, with some equipment, pressure and/or agitation. Depending upon the equipment and the temperature employed, the process may take two to twelve hours, leaving a dry bone residue and a liquid. The liquid is considered a wastewater, which is typically discharged to the sewer system with the permission of the local wastewater treatment authority and in accordance with federal, state and local laws. The bone residue, which is similar to the volume that is customarily obtained after cremation, is pulverized and made available to the family to retain in an urn or for disposition by interment, scattering or other means.

Alkaline hydrolysis, which uses chemicals, heat and, in some cases, pressure and/or agitation, is a different disposition process than cremation, which uses fire to reduce human remains to dry bone residue. While the residue remaining after the two processes are similar, the use of the term "cremation" in regard to alkaline hydrolysis is misleading and should be avoided in statutes, regulations and descriptions of the alkaline hydrolysis process.

The National Funeral Directors Association recognizes that alkaline hydrolysis, if authorized by state law and properly regulated by state authorities, is a process for the disposition

of human remains. Provided that the process is fully explained to, and freely selected by, survivors, and is carried out in licensed facilities by properly trained operators, alkaline hydrolysis is one of several legitimate methods to carry out the dignified disposition of human remains.

Alkaline hydrolysis is a new and different process of disposition that should be subject to laws and regulations specifically designed to ensure it is safely and properly carried out. Toward that end, NFDA recommends that state laws and rules which regulate alkaline hydrolysis must address the following four areas:

- Licensing of alkaline hydrolysis facilities and operators.
- Informed consent by survivors.
- Employee safety for alkaline hydrolysis operators.
- Public health protection.

I. LICENSING OF ALKALINE HYDROLYSIS

- A. The state law shall recognize alkaline hydrolysis as a lawful disposition process for human remains and require that the alkaline hydrolysis process only be carried out in a licensed alkaline hydrolysis facility being operated by certified alkaline hydrolysis operators.
- B. All facilities providing alkaline hydrolysis shall be licensed by the appropriate state agency (the "Board") after being inspected to insure that the facility contains the equipment, certified employees, and the documentation required under the licensing statute and regulations.
- C. Alkaline hydrolysis facilities must meet minimum standards for the handling, holding, and processing of deceased human remains in a safe, clean, private and respectful manner.

- D. The Board shall use trained inspectors to license and regularly inspect the alkaline hydrolysis facility.
- E. Operators of alkaline hydrolysis shall be certified by the state after successfully completing specified training courses in alkaline hydrolysis operation and employee safety.

II. INFORMED CONSENT BY SURVIVORS

- A. State law should require that an alkaline hydrolysis authorization form be signed by the individual or individuals holding the right of disposition (the "Authorizing Agent") under state law.
- B. The authorization form should contain certifications and disclosures addressing the following items:
 - <u>Identification.</u> The remains of the decedent must be positively identified by a family member or a designated representative as a precondition to disposition.
 - Authority of the Authorizing Agent. The Authorizing Agent must list his
 or her relationship to the decedent and certify that the authorizing agent
 possesses the right of disposition under state law.
 - Description of Process. The authorization form must include a detailed description of the alkaline hydrolysis process that accurately describes the steps that will be taken and the subsequent processing of the hydrolyzed remains.
 - <u>Disposition of Items</u>. The authorization form should provide disclosures on the disposition of personal property, jewelry, medical devices, clothing and other items that accompany the remains.

- <u>Disposition of Hydrolyzed Remains.</u> The Authorizing Agent must list on the authorization form what the ultimate disposition of the hydrolyzed remains will be with specific directions to the funeral home as to shipment, transfer, interment, inurnment, etc. of the hydrolyzed remains.
- Authorization. The Authorizing Agent must specifically authorize
 disposition by alkaline hydrolysis and certify the accuracy of all
 statements made by the Authorizing Agent on the authorization form.
- C. All marketing claims, including environmental and public health-related claims, made by those who offer or promote alkaline hydrolysis must be verifiable and accurate.

 Misleading and deceptive statements regarding the alkaline hydrolysis process, including misrepresentations regarding environmental and/or public health safety claims, must be prohibited.

III. EMPLOYEE SAFETY FOR ALKALINE HYDROLYSIS OPERATORS

- A. In order to operate alkaline hydrolysis equipment, operators must complete required training and obtain certification in accordance with Board requirements.
- B. Alkaline hydrolysis facilities and equipment shall be regularly inspected by trained inspectors to insure, among other things, employee safety in accordance with regulations implemented by the Board.

IV. PUBLIC HEALTH PROTECTION

A. No residue or waste from the operation of the alkaline hydrolysis process shall be discharged to public wastewater treatment systems or disposed of elsewhere unless or until all necessary permits and approvals are obtained from federal, state and local agencies and sewer authorities.

- B. If required, wastewater from the alkaline hydrolysis process shall be properly managed and treated prior to disposal, in accordance with applicable laws and regulations.
- C. Specific temperature, agitation and/or pressure, and duration parameters, or a formulaic combination of some or all of these parameters shall be followed to ensure the necessary destruction of pathogens and prions and the safe disposal of the wastewater generated by the operation of the alkaline hydrolysis system. Operators planning to install an alkaline hydrolysis facility should contact their local wastewater treatment authority in advance of installation to determine the specific requirements for the discharge or disposal of the residue and wastewater from the alkaline hydrolysis process.