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**SB-982**

Submitted on: 2/15/2021 2:23:07 PM

Testimony for HWN on 2/16/2021 1:00:00 PM

<b>Submitted By</b>	<b>Organization</b>	<b>Testifier Position</b>	<b>Present at Hearing</b>
Juanita Brown Kawamoto	Testifying for Hawaiian Affairs Caucus of the DPH	Support	No

Comments:

The Hawaiian affairs caucus of the DPH strongly supports SB 982. Native Hawaiian cultural practices and traditions are a significant part of how we believe in preserving the past, sustaining the present, and perpetuating the future.

Me ka mana'o nui,

Juanita Mahienaena Brown Kawamoto

Lunahoomalu

Hawaiian Affairs Caucus

Democratic Party of Hawaii



Hawaii Funeral & Cemetery Association, Inc.  
1330 Maunakea Street, Honolulu, Hawaii 96817

Written Testimony in **Opposition** of  
**SB982** – Relating to Burials

February 12, 2021

To: **COMMITTEE ON HAWAIIAN AFFAIRS**  
Senator Maile S.L. Shimabukuro, Chair  
Senator Jarrett Keohokalole, Vice Chair

**COMMITTEE ON HEALTH**  
Senator Jarrett Keohokalole, Chair  
Senator Rosalyn H. Baker, Vice Chair

HEARING DATE/TIME: February 16<sup>th</sup>, 2021 / 1:00pm

Dear Committee Chairs and Committee Members

My name is Jay Morford, President and Legislative Chair for the Hawaii Funeral and Cemetery Association, Inc. ("HFCA"). The HFCA is in **Opposition** to **SB982** ("Bill") "Relating to Burials".

The HFCA would like to provide comment why we oppose SB982 in its current form.

We feel there is not sufficient information to support the disposition of Natural Organic Reduction or Alkaline Hydrolysis and the overall effects to the environment. The HFCA supports the choice of alternative forms of disposition, however, because of the conflicting information concerning these processes, there should be a full discussion of regulatory agency(s) oversight regarding the technology, facilities, environmental impact and the operators licensing prior to moving this bill forward.

We would like to highlight just a few points of concern regarding these forms of disposition.

**Natural Organic Reduction:**

Based on the information we have the first human composting facility opened February 2021 in Seattle Washington. [Human composting facility begins operations February 8, 2021 | Rebecca Coons](#)  
[In Seattle, the world's first human composting facility has begun operations, although it is unclear if it has had any "customers" yet.](#)  
Dubbed Recompose, the process uses "Recomposition Vessels" to turn human remains into soil that family can collect and use in their own gardens. For \$5,400, remains are covered with biomass, including wood chips, alfalfa, and straw grass under aeration to promote decomposition by microbes and bacteria.  
The average human can be converted into a square meter of soil—approximately seven wheelbarrows—in a month. The process also creates less carbon dioxide and requires far less energy than cremation.

We have concerns with the length of time to transform the decedent into compost and questions regarding the appropriate state department that will have oversight. Other concerns that need to be addressed are:

- 1) The entire process takes about 30 days for the composting process to be complete, the bodies are covered with wood chips and aerated.
- 2) Once the process is complete there is approximately "1.5 - 2" cubic yard of compost, including the decedent's remains could weigh in excess of 1,000 - 2,000 pounds, for example, a cubic yard of soil weighs 2,000 pounds that will need to be delivered to, or taken by, the family. Due to the sensitivities associated with the care and

- handling of remains, HFCA believes that greater clarity needs to be provided regarding the entire process, the nature of the providers, and how the decedent's remains will be transported upon leaving the compost facility.
- 3) The manner in which the decedent and the compost will be transferred to the family and redeposited.

**Alkaline Hydrolysis (AH):** HFCA's concerns regarding this process are:

- 1) The amount of water used per decedent. We all endeavor to be stewards of the environment. HFCA's understanding is that approximately 300 gallons of potable water is used in this process.
- 2) HFCA understands that the discharge from an Alkaline Hydrolysis facility into the sewer system exceeds a PH level of 11. HFCA believes this is something that the Legislature must consider. In areas like San Francisco, the highest PH level that can go in the sewer system is PH 9.
- 3) HFCA understands that the overall process takes up to an entire day with approximately 20%-30% more remains than a traditional cremation. This increased amount could impact families negatively from the standpoint of needing either a larger container (Urn) or an additional container to hold the addition remains, which would likely have a greater cost.

**Hawaiian Burial Practices relating to Alkaline Hydrolysis:** HFCA is in strong support with all cultural traditions and providing people choices of disposition. However, we have concerns as to whether this is a cleaner or more environmentally friendly process and believe those concerns should be studied prior to enactment. In regards to embalming fluid and other chemicals, there are no studies which show any water or ground contamination from embalmed bodies. To the contrary, there are studies that demonstrate otherwise. Hawaii has a 65% -70% cremation rate, much of that related to cultural preference. The Department of Health Clean Air Branch regulates the crematories in the State of Hawaii. To HFCA's knowledge, there is no evidence or studies which show that crematories contribute to poor air quality.

With respect to Hawaiian burial practices, once the alkaline hydrolysis process is completed, the facility would not process the skeletal remains, as is customary in a crematory cremation process, as that the skeletal remains remain intact for interment. (Photo Attached).

There are specific issues that should be addressed specifically relating to this process.

1. Department of Health Permit Requirements; Burial Permit or Cremation Disposition Permit
  - a. The first relates to how to characterize the final disposition practice of "Traditional Hawaiian Burials". HFCA spoke with the previous registrar, Dr. Alvin Onaka (DOH), prior to his retirement regarding how to characterize traditional Hawaiian burial in terms of disposition. It was explained that the final disposition permit would ultimately depend on each Hawaiian practitioner's determination. HFCA does not believe this determination has occurred, and recommends that occur by engaging the Kapuna involved with initiating the legislation that changed the penal code which now specifically allows Traditional Hawaiian Burials.

There should also be formal discussion with the Department of Health and other regulatory agencies regarding the necessary permitting that will be required to operate an alkaline hydrolysis facility, where such a facility can be operated, and who can operate a facility. For instance, should licensed mortuaries only be allowed to operate these type of facilities.

Additionally, the cremation disposition permit does not currently require a place of burial to be documented. We have included California regulation Section 1. 7611.9 Of the Business and Professions Code, which provides insight of regulation that needs to be considered for these facilities. When these regulations were adopted, they contemplated that the cremated remains would subsequently be processed further using a machine to pulverize the cremated remains. It did not consider the Hawaiian "long bone" iwi, which concerns the appropriate process, as well as the issue of what the disposition permit should capture.

While it is ultimately the Legislature's determination, it is worth noting that groups have questioned whether this chemical process is a respectful and dignified way to handle human remains. For example, the Catholic Conference of Ohio addressed proposed legislation in that state and took the position that "Dissolving bodies in a vat of chemicals and pouring the resultant liquid down the drain is not a respectful way to dispose of human remains." *Source: [nolo.com/legal-encyclopedia/alkaline-hydrolysis](http://nolo.com/legal-encyclopedia/alkaline-hydrolysis)*

**The HFCA does not agree that Alkaline Hydrolysis or Natural Organic Reduction process will be more cost effective.**

Alkaline hydrolysis equipment is expensive. Depending on the size of the unit, the cost to purchase an Alkaline Hydrolysis unit is between \$150,000 and \$400,000. This variance is due to the size of the machine as well as the temperature and pressure at which the system can operate. A Higher temperature and greater pressure result in faster decomposition, which is also more expensive. Because the equipment costs more than traditional cremation machinery, the procedure may be more expensive for consumers.

HFCA also believes Natural Organic Reduction will be more expensive than a simple cremation in Hawaii. *Source: 2021 in Seattle Washington. [Human composting facility begins operations](#)*

Currently, Hawaii consumers can obtain a simple cremation for approximately \$1000. While this alone should not inhibit the ability to offer such services, it is a consideration that the Legislature should take into account.

Thank you for your consideration. HFCA remains in favor of offering consumers greater choice and believe that a full discussion should be had regarding the above issues before any legislation is advanced.

Mahalo,



Jay Mofford, President

Hawaii Funeral & Cremation Association

Cc: Elizabeth A Char, MD -Director of the Department of Health

Catherine P. Awakuni Colón- Director of the Department of Commerce and Consumer Affairs

Alkaline Hydrolysis  
Remains





**AB-967 Human remains disposal: alkaline hydrolysis: licensure and regulation. (2017-2018)**

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Date Published: 10/16/2017 02:00 PM

**Assembly Bill No. 967**

CHAPTER 846

An act to amend, repeal, and add Sections 7611.9, 7672, 7672.1, 7672.2, 7672.3, 7672.4, 7672.6, 7672.7, 7673.1, and 7685.2 of, to add Sections 7611.12, 7653.35, 7653.36, 7712.11, and 7730.11 to, and to add Article 2.7 (commencing with Section 7639) to Chapter 12 of Division 3 of, the Business and Professions Code, and to amend, repeal, and add Sections 7003, 7010.3, 7010.7, 7011, 7011.2, 7015, 7016, 7051, 7051.5, 7052, 7052.5, 7054, 7054.1, 7054.6, 7055, 7116, 7117, 103055, 103060, and 103080 of, to add Sections 7002.5, 7006.1, 7006.4, 7006.6, 7006.8, 7010.1, 7017, and 7054.8 to, and to add Article 8 (commencing with Section 8370) to Chapter 2 of Part 3 of Division 8 of, the Health and Safety Code, relating to disposal of human remains, and making an appropriation therefor.

[ Approved by Governor October 15, 2017. Filed with Secretary of State October 15, 2017. ]

LEGISLATIVE COUNSEL'S DIGEST

AB 967, Gloria. Human remains disposal: alkaline hydrolysis: licensure and regulation.

The Cemetery and Funeral Act provides for the licensure and regulation of cemeteries, crematoria, funeral establishments, and their personnel by the Cemetery and Funeral Bureau within the Department of Consumer Affairs. Existing law creates the Cemetery and Funeral Fund, which is continuously appropriated for the purpose of implementing the act. Under existing law, the violation of the act is a misdemeanor. Existing law requires a local registrar of births and deaths to issue permits for the disposition of cremated remains.

This bill, commencing July 1, 2020, would require the bureau to license and regulate hydrolysis facilities, as defined, and hydrolysis facility managers, and would enact requirements applicable to hydrolysis facilities substantially similar to those applicable to crematoria. By expanding the definition of crimes relating to the disposition of human remains and creating new crimes, this bill would impose a state-mandated local program. The bill would require an applicant for a hydrolysis facility license to present to the bureau any state or locally required permits for business operations, prove that it has the appropriate permits and contracts for the disposal of hydrolysate, and employ a hydrolysis chamber approved by the State Department of Public Health, as specified. The bill would require the application for a hydrolysis facility license to be made in writing on the form prescribed by the bureau and accompanied by a licensing fee, which would be deposited into the Cemetery and Funeral Fund. The bill also would authorize the bureau to impose an additional charge to be fixed at not more than \$8.50 per hydrolysis made during the preceding quarter. By depositing moneys in a continuously appropriated fund, this bill would make an appropriation. The bill would require a local registrar of births or deaths to issue permits for the disposition of hydrolyzed human remains. By increasing the duties of local agencies, this bill would impose a state-mandated local program.

The California Constitution requires the state to reimburse local agencies and school districts for certain costs mandated by the state. Statutory provisions establish procedures for making that reimbursement.

This bill would provide that no reimbursement is required by this act for specified reasons.

Vote: majority Appropriation: yes Fiscal Committee: yes Local Program: yes

THE PEOPLE OF THE STATE OF CALIFORNIA DO ENACT AS FOLLOWS:

**SECTION 1.** Section 7611.9 of the Business and Professions Code is amended to read:

**7611.9.** (a) A "cremated remains disposer" is a person who, for his or her own account or for another, disposes of, or offers to dispose of, cremated human remains by scattering over or on land or sea.

(b) This section shall remain in effect only until July 1, 2020, and as of that date is repealed.

**SEC. 2.** Section 7611.9 is added to the Business and Professions Code, to read:

**7611.9.** (a) A "cremated remains disposer" is a person who, for his or her own account or for another, disposes of, or offers to dispose of, cremated human remains or hydrolyzed human remains by scattering over or on land or sea.

(b) This section shall become operative on July 1, 2020.

**SEC. 3.** Section 7611.12 is added to the Business and Professions Code, to read:

**7611.12.** (a) "Licensed hydrolysis facility" means a corporation, partnership, or natural person licensed pursuant to Article 2.7 (commencing with Section 7639). A licensed hydrolysis facility shall be considered a cemetery licensee for purposes of disciplinary action pursuant to Article 6 (commencing with Section 7686).

(b) This section shall become operative on July 1, 2020.

**SEC. 4.** Article 2.7 (commencing with Section 7639) is added to Chapter 12 of Division 3 of the Business and Professions Code, to read:

**Article 2.7. Hydrolysis Facilities**

**7639.** A corporation, partnership, or natural person may operate, establish, or maintain a hydrolysis facility with a valid hydrolysis facility license issued by the bureau.

**7639.02.** A change in the ownership of a hydrolysis facility shall be reported to the bureau. A transfer in a single transaction or related transactions of more than 50 percent of the equitable interest in a licensed hydrolysis facility shall constitute a change of ownership. When a change in ownership in a licensed hydrolysis facility occurs, the existing hydrolysis facility license shall lapse and the new owner shall obtain a license from the bureau as otherwise provided in this act. The bureau shall not require an applicant under this section to obtain any new permit or license from any other governmental agency when the existing permit or license is valid.

**7639.04.** The application for a hydrolysis facility license shall be made in writing on the form prescribed by the bureau and filed at the principal office of the bureau. The application shall be accompanied by the fees.

**7639.06.** (a) The bureau shall require an applicant for a hydrolysis facility license to prove compliance with all applicable laws, rules, regulations, ordinances, and orders, and shall not issue a hydrolysis facility license until the bureau is satisfied that the public interest, human health, and environmental quality will be served by the applicant.

(b) The applicant for a hydrolysis facility license shall present to the bureau any state or locally required permits for business operations, including, but not limited to, any permits required by the following, to the extent applicable:

(1) The local public health department.

(2) The city, county, special district, joint powers authority, or other public agency that provides wastewater treatment services where the licensed hydrolysis facility is to be located.

(3) The Department of Toxic Substances Control for the creation, collection, treatment, or transport of hazardous waste.

(4) Any other state or locally required permit.

(c) The applicant for a hydrolysis facility license shall prove to the bureau that it has the appropriate permits and contracts for the disposal of hydrolysate and which of the following models the facility will be using for the disposal:

(1) Discharge to the sewer collection system.

(2) Containment, collection, and transport to an appropriate treatment facility.

(d) When applying to renew a hydrolysis facility license, an applicant shall present to the bureau records of annual maintenance of the hydrolysis chamber.

**7639.08.** (a) The bureau shall adopt, and may from time to time amend, rules and regulations prescribing standards for applicants for hydrolysis facility licenses. In reviewing an application for a hydrolysis facility license, the bureau may consider acts of the applicant, including acts of the incorporators, officers, directors, and stockholders of the applicant, which shall constitute grounds for the denial of a hydrolysis facility license pursuant to Division 1.5 (commencing with Section 475).

(b) Hydrolysis chamber manufacturers may apply to the State Department of Public Health for approval of a hydrolysis chamber upon finding that the hydrolysis chamber causes the destruction of pathogenic microorganisms pursuant to paragraph (3) of subdivision (a) of Section 118215 of the Health and Safety Code.

(c) In its approval, the State Department of Public Health shall specify the minimum parameters of pH, time, temperature, and pressure that must be used by each hydrolysis chamber to destroy all pathogenic microorganisms. The department may use the guidance of the hydrolysis chamber operations and maintenance manual and biologic indicator spore testing to determine this, among other factors.

(d) The hydrolysis chamber manufacturer shall pay to the State Department of Public Health, the application and evaluation fee as outlined in Section 118245 of the Health and Safety Code.

(e) Every five years, licensed hydrolysis facilities that discharge hydrolysate to a sewer collection system shall submit to the Department of Public Health the results of biological indicator spore testing as well as the last 30

days of archived electronic hydrolysis chamber data which includes the pH, time, temperature, and pressure at which the chamber was operated. Based upon this information, the Department shall evaluate whether the chamber continues to destroy pathogens. The licensee shall include this evaluation in its application to renew its license. If the chamber is determined not to destroy pathogens, the Bureau shall not renew its license until this has been remedied. The Department may charge a fee sufficient to cover the actual hourly costs of staff conducting its five year review of the alternative technology.

(f) Once a hydrolysis chamber has been approved pursuant to subdivision (b), it may be employed by a licensed hydrolysis facility for the final disposition of human remains.

(g) The bureau shall grant hydrolysis facility licenses only to applicants that will employ a hydrolysis chamber approved by the State Department of Public Health pursuant to subdivision (b).

(h) A hydrolysis facility shall ensure or conduct annual maintenance of the hydrolysis chamber.

(i) The bureau shall not renew a hydrolysis facility license without proof of annual maintenance of the hydrolysis chamber.

**7639.10.** (a) A licensed hydrolysis facility shall not conduct hydrolysis unless all of the following requirements are met:

(1) The licensee has a written contract with the person or persons entitled to custody of the remains clearly stating the location, manner, and time of disposition of the remains, in which the person or persons entitled to custody of the remains agree to pay the licensee's regular fee for hydrolysis, disposition, and other services rendered, and any other contractual provisions required by the bureau.

(2) Hydrolysis of remains occurs not more than 24 hours after delivery of the remains to the licensee unless the remains have been preserved in the interim by refrigeration or embalming.

(3) The licensee has a contractual relationship with a licensed cemetery authority for final disposition of hydrolyzed human remains by burial, entombment, or inurnment of any and all remains that are not lawfully disposed of or that are not called for or accepted by the person or persons entitled to the custody and control of the disposition of those remains within 90 days of date of death.

(4) The licensee contains and collects all hydrolysate. Hydrolysate shall not be disposed of using a sewer collection system, except as prescribed in paragraph (8).

(5) The licensee ensures that any hydrolysate is transported by a state-licensed biomaterials handler to a publicly owned wastewater treatment plant or licensed industrial anaerobic digestion facility or waste-to-energy or biomass facility for the beneficial use or disposal of that hydrolysate, unless disposing of hydrolysate using a sewer collection system as prescribed in paragraph (8).

(6) Acceptance of hydrolysate from a licensed hydrolysis facility and a state-licensed biomaterials handler shall be voluntary and at the discretion of each individual facility described in paragraph (5).

(7) Acceptance of hydrolysate by a licensed industrial anaerobic digestion, waste-to-energy, or biomass facility, if the facility has an industrial process sewer connection to a sewer collection system, shall only be allowed with the consent of the publicly owned treatment works to which the sewer collection system is tributary.

(8) A licensed hydrolysis facility may dispose of hydrolysate using a sewer collection system only if all of the following conditions are met:

(A) The city, county, special district, joint powers authority, or other public agency that provides wastewater treatment and disposal services to the licensed hydrolysis facility expressly authorizes the disposal of hydrolysate into the sewer collection system. If issuance of a permit is required by another city, county, special district, joint powers authority, or other public agency that provides sewer collection services where the licensee is located, authorization from both agencies must be obtained.

(B) If the licensee receives the appropriate permissions required by subparagraph (A), the licensee shall comply with all local ordinances, pretreatment requirements, permitting requirements, waste discharge requirements, and all other applicable federal, state, and local laws, ordinances, and regulations governing the protection of water quality and public health, promotion of water recycling, and discharge into the sewer system.

(C) The licensee shall demonstrate compliance as deemed appropriate by the public agency or agencies authorizing the disposal of hydrolysate into the sewer collection system. At a minimum this should include annual water quality testing as prescribed by the public agency or agencies authorizing the disposal of hydrolysate into the sewer collection system.

(D) Authorization for disposal of hydrolysate using a sewer collection system shall be voluntary and at the discretion of each public agency described in subparagraph (A). Each public agency described in subparagraph (A) has the discretion to authorize or to prohibit the discharge of hydrolysate into a sewer collection system for any reason, including for purposes of promoting advanced water recycling systems.

(b) Existing alkaline hydrolysis facilities utilized by medical schools for the purpose of anatomical gifting shall not be subject to paragraphs (1) to (3), inclusive, of subdivision (a), and shall continue to be regulated under the guidelines of the state's anatomical gifting regulations.

**7639.12.** A licensed hydrolysis facility shall not prohibit relatives or the responsible party from viewing the hydrolysis process.

**7639.16.** It is a misdemeanor for any person, firm, or corporation to hydrolyze human remains, or to engage in the disposition of hydrolyzed human remains, without a valid, unexpired hydrolysis facility license. Each



hydrolysis carried out in violation of this section is a separate violation.

**7639.18.** A licensed hydrolysis facility shall be subject to, and shall be disciplined by the bureau in accordance with, Article 6 (commencing with Section 7686).

**7639.19.** This article shall become operative on July 1, 2020.

**SEC. 5.** Section 7653.35 is added to the Business and Professions Code, to read:

**7653.35.** (a) The bureau shall inspect the books, records, and premises of any hydrolysis facility licensed under this chapter. In making those inspections, the bureau shall have access to all books and records, the hydrolysis facility, the hydrolysis chamber, and the storage areas for human remains before and after hydrolysis, during regular office hours or the hours the hydrolysis facility is in operation. No prior notification of the inspection is required to be given to the hydrolysis facility licensee. If any hydrolysis facility licensee fails to allow that inspection or any part thereof, it shall be grounds for the suspension or revocation of a license or other disciplinary action against the licensee. All proceedings under this section shall be conducted in accordance with the provisions of this chapter relating to disciplinary proceedings.

(b) This section shall become operative on July 1, 2020.

**SEC. 6.** Section 7653.36 is added to the Business and Professions Code, to read:

**7653.36.** (a) The bureau shall annually conduct a minimum of one unannounced inspection of each licensed hydrolysis facility.

(b) This section shall become operative on July 1, 2020.

**SEC. 7.** Section 7672 of the Business and Professions Code is amended to read:

**7672.** (a) A person shall not dispose of or offer to dispose of any cremated human remains unless registered as a cremated remains disposer by the bureau. This article shall not apply to any person, partnership, or corporation holding a certificate of authority as a cemetery, crematory license, cemetery broker's license, cemetery salesperson's license, or funeral director's license, nor shall this article apply to any person having the right to control the disposition of the cremated remains of any person or that person's designee if the person does not dispose of or offer to dispose of more than 10 cremated human remains within any calendar year.

(b) This section shall remain in effect only until July 1, 2020, and as of that date is repealed.

**SEC. 8.** Section 7672 is added to the Business and Professions Code, to read:

**7672.** (a) A person shall not dispose of or offer to dispose of any cremated human remains or hydrolyzed human remains unless registered as a cremated remains disposer by the bureau. This article shall not apply to any person, partnership, or corporation holding a certificate of authority as a cemetery, crematory license, hydrolysis facility license, cemetery broker's license, cemetery salesperson's license, or funeral director's license, nor shall this article apply to any person having the right to control the disposition of the cremated remains or hydrolyzed human remains of any person or that person's designee if the person does not dispose of or offer to dispose of more than 10 cremated human remains or hydrolyzed human remains within any calendar year.

(b) This section shall become operative on July 1, 2020.

**SEC. 9.** Section 7672.1 of the Business and Professions Code is amended to read:

**7672.1.** (a) Registration shall be on the form prescribed by the bureau and shall include, but not be limited to, the full name of the registrant, business and residence addresses, description and identification of aircraft or boats which may be used in dispensing cremated human remains, and the area to be served. Each registration application shall be accompanied by the cremated remains disposer fee.

(b) Every registered cremated remains disposer who dispenses human remains by air shall post a copy of his or her current pilot's license, and the address of the cremated remains storage area at his or her place of business. Every registered cremated remains disposer who dispenses human remains by boat shall post a copy of his or her current boating license and the address of the cremated remains storage area at his or her place of business.

(c) This section shall remain in effect only until July 1, 2020, and as of that date is repealed.

**SEC. 10.** Section 7672.1 is added to the Business and Professions Code, to read:

**7672.1.** (a) Registration shall be on the form prescribed by the bureau and shall include, but not be limited to, the full name of the registrant, business and residence addresses, description and identification of aircraft or boats which may be used in dispensing cremated human remains or hydrolyzed human remains, and the area to be served. Each registration application shall be accompanied by the cremated remains disposer fee.

(b) Every registered cremated remains disposer who dispenses human remains by air shall post a copy of his or her current pilot's license, and the address of the cremated remains or hydrolyzed human remains storage area at his or her place of business. Every registered cremated remains disposer who dispenses human remains by boat shall post a copy of his or her current boating license and the address of the cremated remains or hydrolyzed human remains storage area at his or her place of business.

(c) This section shall become operative on July 1, 2020.

**SEC. 11.** Section 7672.2 of the Business and Professions Code is amended to read:

**7672.2.** (a) The bureau shall prepare and deliver to each registered cremated remains disposer a booklet that includes, but is not limited to, the following information: details about the registration and renewal requirements for cremated remains disposers; requirements for obtaining state permits to dispose of cremated human remains; state storage requirements, if any; statutory duties pursuant to this article, and other applicable state laws.

(b) This section shall remain in effect only until July 1, 2020, and as of that date is repealed.

**SEC. 12.** Section 7672.2 is added to the Business and Professions Code, to read:

**7672.2.** (a) The bureau shall prepare and deliver to each registered cremated remains disposer a booklet that includes, but is not limited to, the following information: details about the registration and renewal requirements for cremated remains disposers; requirements for obtaining state permits to dispose of cremated human remains or hydrolyzed human remains; state storage requirements, if any; statutory duties pursuant to this article, and other applicable state laws.

(b) This section shall become operative on July 1, 2020.

**SEC. 13.** Section 7672.3 of the Business and Professions Code is amended to read:

**7672.3.** (a) All aircraft used for the scattering of cremated human remains shall be validly certified by the Federal Aviation Administration. All boats or vessels used for the scattering of cremated human remains shall be registered with the Department of Motor Vehicles or documented by a federal agency, as appropriate. The certification or registration shall be available for inspection by the bureau.

(b) This section shall remain in effect only until July 1, 2020, and as of that date is repealed.

**SEC. 14.** Section 7672.3 is added to the Business and Professions Code, to read:

**7672.3.** (a) All aircraft used for the scattering of cremated human remains or hydrolyzed human remains shall be validly certified by the Federal Aviation Administration. All boats or vessels used for the scattering of cremated human remains or hydrolyzed human remains shall be registered with the Department of Motor Vehicles or documented by a federal agency, as appropriate. The certification or registration shall be available for inspection by the bureau.

(b) This section shall become operative on July 1, 2020.

**SEC. 15.** Section 7672.4 of the Business and Professions Code is amended to read:

**7672.4.** (a) A cremated remains disposer who scatters any cremated human remains without specific written instructions from the person having the right to control the disposition of the remains or who scatters any remains in a manner not in accordance with those instructions shall be subject to disciplinary action.

(b) This section shall remain in effect only until July 1, 2020, and as of that date is repealed.

**SEC. 16.** Section 7672.4 is added to the Business and Professions Code, to read:

**7672.4.** (a) A cremated remains disposer who scatters any cremated human remains or hydrolyzed human remains without specific written instructions from the person having the right to control the disposition of the remains or who scatters any remains in a manner not in accordance with those instructions shall be subject to disciplinary action.

(b) This section shall become operative on July 1, 2020.

**SEC. 17.** Section 7672.6 of the Business and Professions Code is amended to read:

**7672.6.** (a) Every cremated remains disposer shall do both of the following:

(1) Dispose of cremated remains within 60 days of the receipt of those remains, unless a written signed reason for a delay is presented to the person with the right to control the disposition of the remains under Section 7100 of the Health and Safety Code.

(2) Provide the bureau with the address and telephone number of any storage facility being used by the registrant to store cremated remains. Cremated remains shall be stored in a place free from exposure to the elements, and shall be responsibly maintained until disposal. The bureau and its representatives shall conduct, on an annual basis, random inspections of the operations of 5 to 10 percent of the registered cremated remains disposers, and is authorized to inspect any place used by a cremated remains disposer for the storage of cremated remains without notice to the cremated remains disposer.

(b) A violation of the requirements of this section is grounds for disciplinary action.

(c) This section shall remain in effect only until July 1, 2020, and as of that date is repealed.

**SEC. 18.** Section 7672.6 is added to the Business and Professions Code, to read:

**7672.6.** (a) Every cremated remains disposer shall do both of the following:

(1) Dispose of cremated remains or hydrolyzed human remains within 60 days of the receipt of those remains, unless a written signed reason for a delay is presented to the person with the right to control the disposition of the remains under Section 7100 of the Health and Safety Code.

(2) Provide the bureau with the address and telephone number of any storage facility being used by the registrant to store cremated remains or hydrolyzed human remains. Cremated remains or hydrolyzed human remains shall be stored in a place free from exposure to the elements, and shall be responsibly maintained until disposal. The bureau and its representatives shall conduct, on an annual basis, random inspections of the operations of 5 to 10 percent of the registered cremated remains disposers, and is authorized to inspect any place used by a cremated remains disposer for the storage of cremated remains or hydrolyzed human remains without notice to the cremated remains disposer.

(b) A violation of the requirements of this section is grounds for disciplinary action.

(c) This section shall become operative on July 1, 2020.

**SEC. 19.** Section 7672.7 of the Business and Professions Code is amended to read:

**7672.7.** (a) Each cremated remains disposer shall file, and thereafter maintain an updated copy of, an annual report on a form prescribed by the bureau. The report shall include, but not be limited to, the names of the deceased persons whose cremated remains were disposed of, the dates of receipt of the cremated remains, the names and addresses of the persons who authorized disposal of those remains, the dates and locations of disposal of those remains, and the means and manner of disposition. The report shall cover the fiscal year ending on June 30 and shall be filed with the bureau no later than September 30 of each year.

(b) Any cremated remains disposer that makes a willful and material false statement regarding the disposal of cremated remains in the annual report filed or updated pursuant to subdivision (a) shall be subject to disciplinary action.

(c) Any cremated remains disposer that makes a willful and material false statement in the annual report filed or updated pursuant to subdivision (a) shall be guilty of a misdemeanor.

(d) This section shall remain in effect only until July 1, 2020, and as of that date is repealed.

**SEC. 20.** Section 7672.7 is added to the Business and Professions Code, to read:

**7672.7.** (a) Each cremated remains disposer shall file, and thereafter maintain an updated copy of, an annual report on a form prescribed by the bureau. The report shall include, but not be limited to, the names of the deceased persons whose cremated remains or hydrolyzed human remains were disposed of, the dates of receipt of the cremated remains or hydrolyzed human remains, the names and addresses of the persons who authorized disposal of those remains, the dates and locations of disposal of those remains, and the means and manner of disposition. The report shall cover the fiscal year ending on June 30 and shall be filed with the bureau no later than September 30 of each year.

(b) Any cremated remains disposer that makes a willful and material false statement regarding the disposal of cremated remains or hydrolyzed human remains in the annual report filed or updated pursuant to subdivision (a) shall be subject to disciplinary action.

(c) Any cremated remains disposer that makes a willful and material false statement in the annual report filed or updated pursuant to subdivision (a) shall be guilty of a misdemeanor.

(d) This section shall become operative on July 1, 2020.

**SEC. 21.** Section 7673.1 of the Business and Professions Code is amended to read:

**7673.1.** (a) Any cremated remains disposer who stores cremated remains in a reckless manner that results in either of the following is guilty of a public offense punishable by imprisonment in a county jail not exceeding one year or by a fine not to exceed five thousand dollars (\$5,000), or by both that fine and imprisonment:

(1) Loss of all or part of the cremated remains.

(2) Inability to individually identify the cremated remains.

(b) This section shall remain in effect only until July 1, 2020, and as of that date is repealed.

**SEC. 22.** Section 7673.1 is added to the Business and Professions Code, to read:

**7673.1.** (a) Any cremated remains disposer who stores cremated remains or hydrolyzed human remains in a reckless manner that results in either of the following is guilty of a public offense punishable by imprisonment in a county jail not exceeding one year or by a fine not to exceed five thousand dollars (\$5,000), or by both that fine and imprisonment:

(1) Loss of all or part of the cremated remains or hydrolyzed human remains.

(2) Inability to individually identify the cremated remains or hydrolyzed human remains.

(b) This section shall become operative on July 1, 2020.

**SEC. 23.** Section 7685.2 of the Business and Professions Code is amended to read:

**7685.2.** (a) No funeral director shall enter into a contract for furnishing services or property in connection with the burial or other disposal of human remains until he or she has first submitted to the potential purchaser of those

services or property a written or printed memorandum containing the following information, provided that information is available at the time of execution of the contract:

- (1) The total charge for the funeral director's services and the use of his or her facilities, including the preparation of the body and other professional services, and the charge for the use of automotive and other necessary equipment.
- (2) An itemization of charges for the following merchandise as selected: the casket, an outside receptacle, and clothing.
- (3) An itemization of fees or charges and the total amount of cash advances made by the funeral director for transportation, flowers, cemetery or crematory charges, newspaper notices, clergy honorarium, transcripts, telegrams, long distance telephone calls, music, and any other advances as authorized by the purchaser.
- (4) An itemization of any other fees or charges not included above.
- (5) The total of the amount specified in paragraphs (1) to (4), inclusive.

If the charge for any of the above items is not known at the time the contract is entered into, the funeral director shall advise the purchaser of the charge therefor, within a reasonable period after the information becomes available. All prices charged for items covered under Sections 7685 and 7685.1 shall be the same as those given under such sections.

(b) A funeral establishment shall obtain from the person with the right to control the disposition pursuant to Section 7100 of the Health and Safety Code, or the person prearranging the cremation and disposition of his or her own remains, a signed declaration designating specific instructions with respect to the disposition of cremated remains. The bureau shall make available a form upon which the declaration shall be made. The form shall include, but not be limited to, the names of the persons with the right to control the disposition of the cremated remains and the person who is contracting for the cremation services; the name of the deceased; the name of the funeral establishment in possession of the remains; the name of the crematorium; and specific instructions regarding the manner, location, and other pertinent details regarding the disposition of cremated remains. The form shall be signed and dated by the person arranging for the cremation and the funeral director, employee, or agent of the funeral establishment in charge of arranging or prearranging the cremation service.

(c) A funeral director entering into a contract to furnish cremation services shall provide to the purchaser of cremation services, either on the first page of the contract for cremation services, or on a separate page attached to the contract, a written or printed notice containing the following information:

- (1) A person having the right to control disposition of cremated remains may remove the remains in a durable container from the place of cremation or interment, pursuant to Section 7054.6 of the Health and Safety Code.
- (2) If the cremated remains container cannot accommodate all cremated remains of the deceased, the crematory shall provide a larger cremated remains container at no additional cost, or place the excess in a second container that cannot easily come apart from the first, pursuant to Section 8345 of the Health and Safety Code.

(d) This section shall remain in effect only until July 1, 2020, and as of that date is repealed.

**SEC. 24.** Section 7685.2 is added to the Business and Professions Code, to read:

**7685.2.** (a) No funeral director shall enter into a contract for furnishing services or property in connection with the burial or other disposal of human remains until he or she has first submitted to the potential purchaser of those services or property a written or printed memorandum containing the following information, provided that information is available at the time of execution of the contract:

- (1) The total charge for the funeral director's services and the use of his or her facilities, including the preparation of the body and other professional services, and the charge for the use of automotive and other necessary equipment.
- (2) An itemization of charges for the following merchandise as selected: the casket, an outside receptacle, and clothing.
- (3) An itemization of fees or charges and the total amount of cash advances made by the funeral director for transportation, flowers, cemetery, crematory, or hydrolysis facility charges, newspaper notices, clergy honorarium, transcripts, telegrams, long distance telephone calls, music, and any other advances as authorized by the purchaser.
- (4) An itemization of any other fees or charges not included above.
- (5) The total of the amount specified in paragraphs (1) to (4), inclusive.

If the charge for any of the above items is not known at the time the contract is entered into, the funeral director shall advise the purchaser of the charge therefor, within a reasonable period after the information becomes available. All prices charged for items covered under Sections 7685 and 7685.1 shall be the same as those given under such sections.

(b) A funeral establishment shall obtain from the person with the right to control the disposition pursuant to Section 7100 of the Health and Safety Code, or the person prearranging the cremation or hydrolysis and disposition of his or her own remains, a signed declaration designating specific instructions with respect to the disposition of cremated remains or hydrolyzed human remains. The bureau shall make available a form upon which the declaration shall be made. The form shall include, but not be limited to, the names of the persons with the right to control the disposition of the cremated remains or hydrolyzed human remains and the person who is contracting for the cremation or hydrolysis services; the name of the deceased; the name of the funeral

establishment in possession of the remains; the name of the crematorium or hydrolysis facility; and specific instructions regarding the manner, location, and other pertinent details regarding the disposition of cremated remains or hydrolyzed human remains. The form shall be signed and dated by the person arranging for the cremation or hydrolysis and the funeral director, employee, or agent of the funeral establishment in charge of arranging or prearranging the cremation or hydrolysis service.

(c) A funeral director entering into a contract to furnish cremation or hydrolysis services shall provide to the purchaser of cremation or hydrolysis services, either on the first page of the contract for cremation or hydrolysis services, or on a separate page attached to the contract, a written or printed notice containing the following information:

(1) A person having the right to control disposition of cremated remains or hydrolyzed human remains may remove the remains in a durable container from the place of cremation, hydrolysis, or interment, pursuant to Section 7054.6 of the Health and Safety Code.

(2) If the cremated remains container or hydrolyzed human remains container cannot accommodate all cremated remains or hydrolyzed human remains of the deceased, the crematory or hydrolysis facility shall provide a larger cremated remains container or hydrolyzed human remains container at no additional cost, or place the excess in a second container that cannot easily come apart from the first, pursuant to Section 8345 of the Health and Safety Code.

(3) This section shall become operative on July 1, 2020.

**SEC. 25.** Section 7712.11 is added to the Business and Professions Code, to read:

**7712.11.** (a) Each hydrolysis facility for which a hydrolysis facility license is required shall be operated under the supervision of a manager qualified in accordance with rules adopted by the bureau. A licensed crematory manager may be designated as a hydrolysis facility manager with appropriate certification upon demonstrating an understanding of the applicable provisions of this code and of the Health and Safety Code, as determined by the bureau.

(b) A person shall not engage in the business of, act in the capacity of, or advertise or assume to act as, a hydrolysis facility manager without a valid crematory manager license and obtaining a certification from the bureau.

(c) This section shall become operative on July 1, 2020.

**SEC. 26.** Section 7730.11 is added to the Business and Professions Code, to read:

**7730.11.** (a) The bureau shall establish the fee to obtain or renew a hydrolysis facility license, which shall not exceed the reasonable cost of license administration.

(b) Every licensee operating a hydrolysis facility pursuant to a license issued pursuant to this article shall pay an additional charge to be fixed by the bureau of not more than eight dollars and fifty cents (\$8.50) per hydrolysis made during the preceding quarter, which charges shall be deposited into the Cemetery and Funeral Fund.

(c) This section shall become operative on July 1, 2020.

**SEC. 27.** Section 7002.5 is added to the Health and Safety Code, to read:

**7002.5.** (a) "Hydrolyzed human remains" means bone fragments of a human body that are left after hydrolysis in a hydrolysis facility. "Hydrolyzed human remains" does not include foreign materials, pacemakers, or prostheses.

(b) This section shall become operative on July 1, 2020.

**SEC. 28.** Section 7003 of the Health and Safety Code is amended to read:

**7003.** (a) "Cemetery" means either of the following:

(1) Any of the following that is used or intended to be used and dedicated for cemetery purposes:

- (A) A burial park, for earth interments.
- (B) A mausoleum, for crypt or vault interments.
- (C) A crematory and columbarium, for cinerary interments.

(2) A place where six or more human bodies are buried.

(b) This section shall remain in effect only until July 1, 2020, and as of that date is repealed.

**SEC. 29.** Section 7003 is added to the Health and Safety Code, to read:

**7003.** (a) "Cemetery" means either of the following:

(1) Any of the following that is used or intended to be used and dedicated for cemetery purposes:

- (A) A burial park, for earth interments.
- (B) A mausoleum, for crypt or vault interments.
- (C) A crematory and columbarium, for interment of cremated remains or hydrolyzed human remains.

(2) A place where six or more human bodies are buried.

(b) This section shall become operative on July 1, 2020.

**SEC. 30.** Section 7006.1 is added to the Health and Safety Code, to read:

**7006.1.** (a) "Hydrolysis facility" means a building or structure containing one or more chambers for the reduction of bodies of deceased persons by alkaline hydrolysis.

(b) This section shall become operative on July 1, 2020.

**SEC. 31.** Section 7006.4 is added to the Health and Safety Code, to read:

**7006.4.** (a) "Hydrolysis chamber" means the enclosed space within which the hydrolysis of human remains is performed and any other attached, nonenclosed, mechanical components that are necessary for the safe and proper functioning of the equipment. Allowable hydrolysis chambers for the disposition of human remains shall meet or exceed State Department of Public Health and federal Centers for Disease Control and Prevention requirements applicable for destruction of human pathogens, specified in the hydrolysis chamber approval issued pursuant to Section 7639.08 of the Business and Professions Code.

(b) This section shall become operative on July 1, 2020.

**SEC. 32.** Section 7006.6 is added to the Health and Safety Code, to read:

**7006.6.** (a) "Hydrolysis container" means a hydrolyzable body wrapping into which the body of a deceased person is placed prior to insertion into a hydrolysis chamber. The wrapping must consist of 100-percent protein-based material, such as silk, suede, leather, feather, fur, or wool.

(b) This section shall become operative on July 1, 2020.

**SEC. 33.** Section 7006.8 is added to the Health and Safety Code, to read:

**7006.8.** (a) "Hydrolyzed human remains container" means a receptacle in which hydrolyzed human remains are placed after hydrolysis.

(b) This section shall become operative on July 1, 2020.

**SEC. 34.** Section 7010.1 is added to the Health and Safety Code, to read:

**7010.1.** (a) "Hydrolysis" means the process by which the following two steps are taken:

(1) The reduction of the body of a deceased person to its essential organic components and bone fragments by alkaline hydrolysis. "Alkaline hydrolysis" is a process using heat or heat and applied pressure, water, and potassium hydroxide or sodium hydroxide in a hydrolysis chamber.

(2) The processing of the remains after removal from the hydrolysis chamber pursuant to Section 7010.3.

(b) This section shall become operative on July 1, 2020.

**SEC. 35.** Section 7010.3 of the Health and Safety Code is amended to read:

**7010.3.** (a) "Processing" means the removal of foreign objects, pursuant to Section 7051, and the reduction of the particle size of cremated remains by mechanical means including, but not limited to, grinding, crushing, and pulverizing to a consistency appropriate for disposition.

(b) This section shall remain in effect only until July 1, 2020, and as of that date is repealed.

**SEC. 36.** Section 7010.3 is added to the Health and Safety Code, to read:

**7010.3.** (a) "Processing" means the removal of foreign objects, pursuant to Section 7051, and the reduction of the particle size of cremated remains or hydrolyzed human remains by mechanical means including, but not limited to, grinding, crushing, and pulverizing to a consistency appropriate for disposition.

(b) This section shall become operative on July 1, 2020.

**SEC. 37.** Section 7010.7 of the Health and Safety Code is amended to read:

**7010.7.** (a) "Scattering" means the authorized dispersal of cremated remains at sea, in other areas of the state, or commingling in a defined area within a dedicated cemetery, in accordance with this part.

(b) This section shall remain in effect only until July 1, 2020, and as of that date is repealed.

**SEC. 38.** Section 7010.7 is added to the Health and Safety Code, to read:

**7010.7.** (a) "Scattering" means the authorized dispersal of cremated remains or hydrolyzed human remains at sea, in other areas of the state, or commingling in a defined area within a dedicated cemetery, in accordance with this part.

(b) This section shall become operative on July 1, 2020.

**SEC. 39.** Section 7011 of the Health and Safety Code is amended to read:

**7011.** (a) "Inurnment" means placing cremated remains in a cremated remains container suitable for placement, burial, or shipment.

(b) This section shall remain in effect only until July 1, 2020, and as of that date is repealed.

**SEC. 40.** Section 7011 is added to the Health and Safety Code, to read:

**7011.** (a) "Inurnment" means placing cremated remains or hydrolyzed human remains in a cremated remains container or hydrolyzed human remains container suitable for placement, burial, or shipment.

(b) This section shall become operative on July 1, 2020.

**SEC. 41.** Section 7011.2 of the Health and Safety Code is amended to read:

**7011.2.** (a) "Placement" means the placing of a container holding cremated remains in a crypt, vault, or niche.

(b) This section shall remain in effect only until July 1, 2020, and as of that date is repealed.

**SEC. 42.** Section 7011.2 is added to the Health and Safety Code, to read:

**7011.2.** (a) "Placement" means the placing of a container holding cremated remains or hydrolyzed human remains in a crypt, vault, or niche.

(b) This section shall become operative on July 1, 2020.

**SEC. 43.** Section 7015 of the Health and Safety Code is amended to read:

**7015.** (a) "Crypt" or "vault" means a space in a mausoleum of sufficient size, used or intended to be used, to entomb uncremated human remains.

(b) This section shall remain in effect only until July 1, 2020, and as of that date is repealed.

**SEC. 44.** Section 7015 is added to the Health and Safety Code, to read:

**7015.** (a) "Crypt" or "vault" means a space in a mausoleum of sufficient size, used or intended to be used, to entomb human remains that have been neither cremated nor hydrolyzed.

(b) This section shall become operative on July 1, 2020.

**SEC. 45.** Section 7016 of the Health and Safety Code is amended to read:

**7016.** (a) "Niche" means a space in a columbarium used, or intended to be used, for the placement of cremated human remains.

(b) This section shall remain in effect only until July 1, 2020, and as of that date is repealed.

**SEC. 46.** Section 7016 is added to the Health and Safety Code, to read:

**7016.** (a) "Niche" means a space in a columbarium used, or intended to be used, for the placement of cremated human remains or hydrolyzed human remains.

(b) This section shall become operative on July 1, 2020.

**SEC. 47.** Section 7017 is added to the Health and Safety Code, to read:

**7017.** (a) "Hydrolysate" means the resultant liquid from the hydrolysis of human remains, which liquid is a sterile, benign, micronutrient-rich solution consisting of sugars, salts, peptides, and amino acids. Hydrolysate and calcium phosphate "ashes" are the two end results from the alkaline hydrolysis process.

(b) This section shall become operative on July 1, 2020.

**SEC. 48.** Section 7051 of the Health and Safety Code is amended to read:

**7051.** (a) Every person who removes any part of any human remains from any place where it has been interred, or from any place where it is deposited while awaiting interment or cremation, with intent to sell it or to dissect it, without authority of law, or written permission of the person or persons having the right to control the remains under Section 7100, or with malice or wantonness, has committed a public offense that is punishable by imprisonment pursuant to subdivision (h) of Section 1170 of the Penal Code.

(b) This section shall not prohibit the removal of foreign materials, pacemakers, or prostheses from cremated remains by an employee of a licensed crematory prior to final processing of ashes. Dental gold or silver, jewelry, or mementos, to the extent that they can be identified, may be removed by the employee prior to final processing if the equipment is such that it will not process these materials. However, any dental gold and silver, jewelry, or mementos that are removed shall be returned to the urn or cremated remains container, unless otherwise directed by the person or persons having the right to control the disposition.

(c) This section shall remain in effect only until July 1, 2020, and as of that date is repealed.

**SEC. 49.** Section 7051 is added to the Health and Safety Code, to read:

**7051.** (a) Every person who removes any part of any human remains from any place where it has been interred, or from any place where it is deposited while awaiting interment, cremation, or hydrolysis, with intent to sell it or to dissect it, without authority of law, or written permission of the person or persons having the right to control the remains under Section 7100, or with malice or wantonness, has committed a public offense that is punishable by imprisonment pursuant to subdivision (h) of Section 1170 of the Penal Code.

(b) This section shall not prohibit the removal of foreign materials, pacemakers, or prostheses from cremated remains or hydrolyzed human remains by an employee of a licensed crematory or licensed hydrolysis facility prior to final processing of remains. Dental gold or silver, jewelry, or mementos, to the extent that they can be identified, may be removed by the employee prior to final processing if the equipment is such that it will not process these materials. However, any dental gold and silver, jewelry, or mementos that are removed shall be returned to the urn, cremated remains container, or hydrolyzed human remains container, unless otherwise directed by the person or persons having the right to control the disposition.

(c) This section shall become operative on July 1, 2020.

**SEC. 50.** Section 7051.5 of the Health and Safety Code is amended to read:

**7051.5.** (a) Every person who removes or possesses dental gold or silver, jewelry, or mementos from any human remains without specific written permission of the person or persons having the right to control those remains under Section 7100 is punishable by imprisonment pursuant to subdivision (h) of Section 1170 of the Penal Code. The fact that residue and any unavoidable dental gold or dental silver, or other precious metals remain in the cremation chamber or other equipment or any container used in a prior cremation is not a violation of this section.

(b) This section shall remain in effect only until July 1, 2020, and as of that date is repealed.

**SEC. 51.** Section 7051.5 is added to the Health and Safety Code, to read:

**7051.5.** (a) Every person who removes or possesses dental gold or silver, jewelry, or mementos from any human remains without specific written permission of the person or persons having the right to control those remains under Section 7100 is punishable by imprisonment pursuant to subdivision (h) of Section 1170 of the Penal Code. The fact that residue and any unavoidable dental gold or dental silver, or other precious metals remain in the cremation chamber, hydrolysis chamber, or other equipment or any container used in a prior cremation or hydrolysis is not a violation of this section.

(b) This section shall become operative on July 1, 2020.

**SEC. 52.** Section 7052 of the Health and Safety Code is amended to read:

**7052.** (a) Every person who willfully mutilates, disinters, removes from the place of interment, or commits an act of sexual penetration on, or has sexual contact with, any remains known to be human, without authority of law, is guilty of a felony. This section does not apply to any person who, under authority of law, removes the remains for reinterment, or performs a cremation.

(b) For purposes of this section, the following definitions apply:

(1) "Sexual penetration" means the unlawful penetration of the vagina or anus, however slight, by any part of a person's body or other object, or any act of sexual contact between the sex organs of a person and the mouth or anus of a dead body, or any oral copulation of a dead human body for the purpose of sexual arousal, gratification, or abuse.

(2) "Sexual contact" means any willful touching by a person of an intimate part of a dead human body for the purpose of sexual arousal, gratification, or abuse.

(c) This section shall remain in effect only until July 1, 2020, and as of that date is repealed.

**SEC. 53.** Section 7052 is added to the Health and Safety Code, to read:

**7052.** (a) Every person who willfully mutilates, disinters, removes from the place of interment, or commits an act of sexual penetration on, or has sexual contact with, any remains known to be human, without authority of law, is guilty of a felony. This section does not apply to any person who, under authority of law, removes the remains for reinterment, or performs a cremation or hydrolysis.

(b) For purposes of this section, the following definitions apply:

(1) "Sexual penetration" means the unlawful penetration of the vagina or anus, however slight, by any part of a person's body or other object, or any act of sexual contact between the sex organs of a person and the mouth or anus of a dead body, or any oral copulation of a dead human body for the purpose of sexual arousal, gratification, or abuse.

(2) "Sexual contact" means any willful touching by a person of an intimate part of a dead human body for the purpose of sexual arousal, gratification, or abuse.

(c) This section shall become operative on July 1, 2020.

**SEC. 54.** Section 7052.5 of the Health and Safety Code is amended to read:

**7052.5.** (a) Notwithstanding the provisions of Section 7052, cremated remains may be removed from the place of interment for disposition as provided in Section 7054.6 or for burial at sea as provided in Section 7117.



(b) This section shall remain in effect only until July 1, 2020, and as of that date is repealed.

**SEC. 55.** Section 7052.5 is added to the Health and Safety Code, to read:

**7052.5.** (a) Notwithstanding the provisions of Section 7052, cremated remains or hydrolyzed human remains may be removed from the place of interment for disposition as provided in Section 7054.6 or for burial at sea as provided in Section 7117.

(b) This section shall become operative on July 1, 2020.

**SEC. 56.** Section 7054 of the Health and Safety Code is amended to read:

**7054.** (a) (1) Except as authorized pursuant to the sections referred to in subdivision (b), every person who deposits or disposes of any human remains in any place, except in a cemetery, is guilty of a misdemeanor.

(2) Every licensee or registrant pursuant to Chapter 12 (commencing with Section 7600) of Division 3 of the Business and Professions Code and the agents and employees of the licensee or registrant, or any unlicensed person acting in a capacity in which a license from the Cemetery and Funeral Bureau is required, who, except as authorized pursuant to the sections referred to in subdivision (b), deposits or disposes of any human remains in any place, except in a cemetery, is guilty of a misdemeanor that shall be punishable by imprisonment in a county jail not exceeding one year, by a fine not exceeding ten thousand dollars (\$10,000), or both that imprisonment and fine.

(b) Cremated remains may be disposed of pursuant to Sections 7054.6, 7116, 7117, and 103060.

(c) Subdivision (a) of this section shall not apply to the reburial of Native American remains under an agreement developed pursuant to subdivision (l) of Section 5097.94 of the Public Resources Code, or implementation of a recommendation or agreement made pursuant to Section 5097.98 of the Public Resources Code.

(d) This section shall remain in effect only until July 1, 2020, and as of that date is repealed.

**SEC. 57.** Section 7054 is added to the Health and Safety Code, to read:

**7054.** (a) (1) Except as authorized pursuant to the sections referred to in subdivision (b), every person who deposits or disposes of any human remains in any place, except in a cemetery, is guilty of a misdemeanor.

(2) Every licensee or registrant pursuant to Chapter 12 (commencing with Section 7600) of Division 3 of the Business and Professions Code and the agents and employees of the licensee or registrant, or any unlicensed person acting in a capacity in which a license from the Cemetery and Funeral Bureau is required, who, except as authorized pursuant to the sections referred to in subdivision (b), deposits or disposes of any human remains in any place, except in a cemetery, is guilty of a misdemeanor that shall be punishable by imprisonment in a county jail not exceeding one year, by a fine not exceeding ten thousand dollars (\$10,000), or both that imprisonment and fine.

(b) Cremated remains or hydrolyzed human remains may be disposed of pursuant to Sections 7054.6, 7116, 7117, and 103060.

(c) Subdivision (a) of this section shall not apply to the reburial of Native American remains under an agreement developed pursuant to subdivision (l) of Section 5097.94 of the Public Resources Code, or implementation of a recommendation or agreement made pursuant to Section 5097.98 of the Public Resources Code.

(d) This section shall become operative on July 1, 2020.

**SEC. 58.** Section 7054.1 of the Health and Safety Code is amended to read:

**7054.1.** (a) No cremated remains shall be removed from the place of cremation, nor shall there be any charge for the cremation, unless the cremated remains have been processed so that they are suitable for inurnment within a cremated remains container or an urn. Every contract for cremation services shall include specific written notification of the processing to the person having the right to control the disposition of the remains under Section 7100.

(b) This section shall remain in effect only until July 1, 2020, and as of that date is repealed.

**SEC. 59.** Section 7054.1 is added to the Health and Safety Code, to read:

**7054.1.** (a) No cremated remains or hydrolyzed human remains shall be removed from the place of cremation or hydrolysis, nor shall there be any charge for the cremation or hydrolysis, unless the cremated remains or hydrolyzed human remains have been processed so that they are suitable for inurnment within a cremated remains container, hydrolyzed human remains container, or an urn. Every contract for cremation or hydrolysis services shall include specific written notification of the processing to the person having the right to control the disposition of the remains under Section 7100.

(b) This section shall become operative on July 1, 2020.

**SEC. 60.** Section 7054.6 of the Health and Safety Code is amended to read:

**7054.6.** (a) Except as provided in subdivision (b), cremated remains may be removed in a durable container from the place of cremation or interment and kept in or on the real property owned or occupied by a person described in Section 7100 or any other person, with the permission of the person with the right to disposition, or the durable container holding the cremated remains may be kept in a church or religious shrine, if written permission

of the church or religious shrine is obtained and there is no conflict with local use permit requirements or zoning laws, if the removal is under the authority of a permit for disposition granted under Section 103060. The placement, in any place, of six or more cremated remains under this section does not constitute the place a cemetery, as defined in Section 7003.

(b) Notwithstanding any other provision of law, cremated remains may be placed in one or more keepsake urns. Keepsake urns shall be kept as authorized by the person or persons with the right to control disposition pursuant to Section 7100, provided that a permit for disposition of human remains pursuant to Section 103060 is issued by the local registrar for each keepsake urn designating the home address of each person receiving a keepsake urn and a permit fee pursuant to Section 103065 is paid. No keepsake urn shall be subject to Section 8345. For purposes of this section, a keepsake urn shall mean a closed durable container that will accommodate an amount of cremated remains not to exceed one cubic centimeter.

(c) Prior to disposition of cremated remains, every licensee or registrant pursuant to Chapter 12 (commencing with Section 7600) of Division 3 of the Business and Professions Code, and the agents and employees of the licensee or registrant shall do all of the following:

- (1) Remove the cremated remains from the place of cremation in a durable container.
  - (2) Keep the cremated remains in a durable container.
  - (3) Store the cremated remains in a place free from exposure to the elements.
  - (4) Responsibly maintain the cremated remains.
- (d) This section shall remain in effect only until July 1, 2020, and as of that date is repealed.

**SEC. 61.** Section 7054.6 is added to the Health and Safety Code, to read:

**7054.6.** (a) Except as provided in subdivision (b), cremated remains or hydrolyzed human remains may be removed in a durable container from the place of cremation, hydrolysis, or interment and kept in or on the real property owned or occupied by a person described in Section 7100 or any other person, with the permission of the person with the right to disposition, or the durable container holding the cremated remains or hydrolyzed human remains may be kept in a church or religious shrine, if written permission of the church or religious shrine is obtained and there is no conflict with local use permit requirements or zoning laws, if the removal is under the authority of a permit for disposition granted under Section 103060. The placement, in any place, of six or more cremated remains or hydrolyzed human remains under this section does not constitute the place a cemetery, as defined in Section 7003.

(b) Notwithstanding any other provision of law, cremated remains or hydrolyzed human remains may be placed in one or more keepsake urns. Keepsake urns shall be kept as authorized by the person or persons with the right to control disposition pursuant to Section 7100, provided that a permit for disposition of human remains pursuant to Section 103060 is issued by the local registrar for each keepsake urn designating the home address of each person receiving a keepsake urn and a permit fee pursuant to Section 103065 is paid. No keepsake urn shall be subject to Section 8345. For purposes of this section, a keepsake urn shall mean a closed durable container that will accommodate an amount of cremated remains or hydrolyzed human remains not to exceed one cubic centimeter.

(c) Prior to disposition of cremated remains or hydrolyzed human remains, every licensee or registrant pursuant to Chapter 12 (commencing with Section 7600) of Division 3 of the Business and Professions Code, and the agents and employees of the licensee or registrant shall do all of the following:

- (1) Remove the cremated remains or hydrolyzed human remains from the place of cremation or hydrolysis in a durable container.
  - (2) Keep the cremated remains or hydrolyzed human remains in a durable container.
  - (3) Store the cremated remains or hydrolyzed human remains in a place free from exposure to the elements.
  - (4) Responsibly maintain the cremated remains or hydrolyzed human remains.
- (d) This section shall become operative on July 1, 2020.

**SEC. 62.** Section 7054.8 is added to the Health and Safety Code, to read:

**7054.8.** (a) Except with the express written permission of the person entitled to control the disposition of the remains, no person shall do any of the following:

(1) Hydrolyze the remains of more than one person at the same time in the same hydrolysis chamber, or introduce the remains of a second person into a hydrolysis chamber until dissolution of any preceding remains has been terminated and reasonable efforts have been employed to remove all fragments of the preceding remains. The fact that there is residue in the hydrolysis chamber or other equipment or any container used in a prior hydrolysis is not a violation of this section.

(2) Dispose of or scatter hydrolyzed human remains in a manner or in such a location that the remains are commingled with those of another person. This paragraph shall not apply to the scattering of hydrolyzed human remains at sea from individual containers or to the disposal in a dedicated cemetery of accumulated residue removed from processing equipment.

(3) Place hydrolyzed human remains or other remains of more than one person in the same container or the same interment space. This paragraph shall not apply to the following:

(A) Interment of members of the same family in a common container designed for the hydrolyzed human remains of more than one person.

(B) Interment in a space or container that has been previously designated at the time of sale as being intended for the interment of remains of more than one person.

(C) Disposal in a dedicated cemetery of residue removed from processing equipment.

(b) Written acknowledgment from the person entitled to control the disposition of the hydrolyzed human remains shall be obtained by the person with whom arrangements are made for disposition of the remains on a form that includes, but is not limited to, the following information: "The human body is hydrolyzed with organic protein-based material such as wool, silk, cotton, or other protein-based material in the hydrolysis chamber. Bone fragments are not hydrolyzable and, as a result, remain in the chamber. The hydrolyzed remains will be dried and crushed, pulverized, or ground to facilitate inurnment or scattering." The acknowledgment shall be filed and retained, for at least five years, by the person who disposes of or interments the remains.

(c) A person, including any corporation or partnership, that violates any provision of this section is guilty of a misdemeanor.

(d) This section shall become operative on July 1, 2020.

**SEC. 63.** Section 7055 of the Health and Safety Code is amended to read:

**7055.** (a) Every person, who for himself or herself or for another person, interments or incinerates a body or permits the same to be done, or removes any remains, other than cremated remains, from the primary registration district in which the death or incineration occurred or the body was found, except a removal by a funeral director in a funeral director's conveyance or an officer of a duly accredited medical college engaged in official duties with respect to the body of a decedent who has willfully donated his or her body to the medical college from that registration district or county to another registration district or county, or within the same registration district or county, without the authority of a burial or removal permit issued by the local registrar of the district in which the death occurred or in which the body was found; or removes interred human remains from the cemetery in which the interment occurred, or removes cremated remains from the premises on which the cremation occurred without the authority of a removal permit is guilty of a misdemeanor and punishable as follows:

(1) For the first offense, by a fine of not less than ten dollars (\$10) nor more than five hundred dollars (\$500).

(2) For each subsequent offense, by a fine of not less than fifty dollars (\$50) nor more than five hundred dollars (\$500) or imprisonment in the county jail for not more than 60 days, or by both.

(b) Notwithstanding subdivision (a), a funeral director of a licensed out-of-state funeral establishment may transport human remains out of this state without a removal permit when he or she is acting within the requirements specified in subdivision (b) of Section 103050.

(c) This section shall remain in effect only until July 1, 2020, and as of that date is repealed.

**SEC. 64.** Section 7055 is added to the Health and Safety Code, to read:

**7055.** (a) Every person, who for himself or herself or for another person, interments, cremates, or hydrolyzes a body or permits the same to be done, or removes any remains, other than cremated remains or hydrolyzed human remains, from the primary registration district in which the death, cremation, or hydrolysis occurred or the body was found, except a removal by a funeral director in a funeral director's conveyance or an officer of a duly accredited medical college engaged in official duties with respect to the body of a decedent who has willfully donated his or her body to the medical college from that registration district or county to another registration district or county, or within the same registration district or county, without the authority of a burial or removal permit issued by the local registrar of the district in which the death occurred or in which the body was found; or removes interred human remains from the cemetery in which the interment occurred, removes cremated remains from the premises on which the cremation occurred, or removes hydrolyzed human remains from the premises on which the hydrolysis occurred without the authority of a removal permit is guilty of a misdemeanor and punishable as follows:

(1) For the first offense, by a fine of not less than ten dollars (\$10) nor more than five hundred dollars (\$500).

(2) For each subsequent offense, by a fine of not less than fifty dollars (\$50) nor more than five hundred dollars (\$500) or imprisonment in the county jail for not more than 60 days, or by both.

(b) Notwithstanding subdivision (a), a funeral director of a licensed out-of-state funeral establishment may transport human remains out of this state without a removal permit when he or she is acting within the requirements specified in subdivision (b) of Section 103050.

(c) This section shall become operative on July 1, 2020.

**SEC. 65.** Section 7116 of the Health and Safety Code is amended to read:

**7116.** (a) Cremated remains may be scattered in areas where no local prohibition exists, provided that the cremated remains are not distinguishable to the public, are not in a container, and that the person who has control over disposition of the cremated remains has obtained written permission of the property owner or governing agency to scatter on the property. A state or local agency may adopt an ordinance, regulation, or policy, as appropriate, authorizing, consistent with this section, or specifically prohibiting, the scattering of cremated human remains on lands under the agency's jurisdiction. The scattering of the cremated remains of more than one person in one location pursuant to this section shall not create a cemetery pursuant to Section 7003 or any other provision of law.

(b) This section shall remain in effect only until July 1, 2020, and as of that date is repealed.

**SEC. 66.** Section 7116 is added to the Health and Safety Code, to read:

**7116.** (a) Cremated remains or hydrolyzed human remains may be scattered in areas where no local prohibition exists, provided that the cremated remains or hydrolyzed human remains are not distinguishable to the public, are not in a container, and that the person who has control over disposition of the cremated remains or hydrolyzed human remains has obtained written permission of the property owner or governing agency to scatter on the property. A state or local agency may adopt an ordinance, regulation, or policy, as appropriate, authorizing, consistent with this section, or specifically prohibiting, the scattering of cremated human remains or hydrolyzed human remains on lands under the agency's jurisdiction. The scattering of the cremated remains or hydrolyzed human remains of more than one person in one location pursuant to this section shall not create a cemetery pursuant to Section 7003 or any other provision of law.

(b) This section shall become operative on July 1, 2020.

**SEC. 67.** Section 7117 of the Health and Safety Code is amended to read:

**7117.** (a) Cremated remains may be taken by boat from any harbor in this state, or by air, and scattered at sea. Cremated remains shall be removed from their container before the remains are scattered at sea.

(b) Any person who scatters at sea, either from a boat or from the air, any human cremated remains shall, file with the local registrar of births and deaths in the county nearest the point where the remains were scattered, a verified statement containing the name of the deceased person, the time and place of death, the place at which the cremated remains were scattered, and any other information that the local registrar of births and deaths may require. The first copy of the endorsed permit shall be filed with the local registrar of births and deaths within 10 days of disposition. The third copy shall be returned to the office of issuance.

(c) For purposes of this section, the phrase "at sea" includes the inland navigable waters of this state, exclusive of lakes and streams, provided that no such scattering may take place within 500 yards of the shoreline. Nothing in this section shall be construed to allow the scattering of cremated human remains from a bridge or pier.

(d) Notwithstanding any other provision of this code, the cremated remains of a deceased person may be scattered at sea as provided in this section and Section 103060.

(e) This section shall remain in effect only until July 1, 2020, and as of that date is repealed.

**SEC. 68.** Section 7117 is added to the Health and Safety Code, to read:

**7117.** (a) Cremated remains or hydrolyzed human remains may be taken by boat from any harbor in this state, or by air, and scattered at sea. Cremated remains or hydrolyzed human remains shall be removed from their container before the remains are scattered at sea.

(b) Any person who scatters at sea, either from a boat or from the air, any human cremated remains or hydrolyzed human remains shall file with the local registrar of births and deaths in the county nearest the point where the remains were scattered, a verified statement containing the name of the deceased person, the time and place of death, the place at which the cremated remains or hydrolyzed human remains were scattered, and any other information that the local registrar of births and deaths may require. The first copy of the endorsed permit shall be filed with the local registrar of births and deaths within 10 days of disposition. The third copy shall be returned to the office of issuance.

(c) For purposes of this section, the phrase "at sea" includes the inland navigable waters of this state, exclusive of lakes and streams, provided that no such scattering may take place within 500 yards of the shoreline. Nothing in this section shall be construed to allow the scattering of cremated human remains or hydrolyzed human remains from a bridge or pier.

(d) Notwithstanding any other provision of this code, the cremated remains or hydrolyzed human remains of a deceased person may be scattered at sea as provided in this section and Section 103060.

(e) This section shall become operative on July 1, 2020.

**SEC. 69.** Article 8 (commencing with Section 8370) is added to Chapter 2 of Part 3 of Division 8 of the Health and Safety Code, to read:

**Article 8. Hydrolysis Facilities**

**8370.** All hydrolyzed human remains not disposed of in accordance with this chapter, within one year, shall be interred.

**8372.** A hydrolysis facility shall not make or enforce any rules requiring that human remains be placed in a casket before hydrolysis or that human remains be hydrolyzed in a casket, nor shall a hydrolysis facility refuse to accept human remains for hydrolysis for the reason that they are not in a casket. Every director, officer, agent, or representative of a hydrolysis facility who violates this section is guilty of a misdemeanor. Nothing in this section shall be construed to prohibit the requiring of some type of container or disposal unit, as specified in Section 7006.6.

**8374.** (a) A hydrolysis facility shall maintain on its premises, or other business location within the state, an accurate record of all hydrolyses performed, including all of the following information:

(1) Name of the referring funeral director, if any.

- (2) Name of the deceased.
  - (3) Date of the hydrolysis.
  - (4) Name of the hydrolysis chamber operator.
  - (5) Disposition of the hydrolyzed human remains.
  - (6) Time and date that the body was inserted into the hydrolysis chamber.
  - (7) Time and date that the body was removed from the hydrolysis chamber.
  - (8) Time and date that final processing of the hydrolyzed human remains was complete.
  - (9) Name and address of the authorizing agent.
  - (10) Identification number assigned to the deceased, pursuant to Section 8376.
  - (11) A photocopy of the disposition permit filed in connection with the disposition.
  - (12) Any documentation of compliance with appropriate environmental and safety laws.
  - (13) Body mass of the deceased, along with temperature, time duration, and pressure at which the hydrolysis was performed.
- (b) A hydrolysis facility shall maintain on its premises, or other business location within the state, records of the maintenance performed on the hydrolysis chamber.
- (c) Information described in this section shall be maintained for at least 10 years after the hydrolysis is performed and shall be subject to inspection by the Cemetery and Funeral Bureau.

**8376.** (a) A hydrolysis facility shall maintain an identification system allowing identification of each decedent beginning from the time the hydrolysis facility accepts delivery of human remains until the point at which it releases the hydrolyzed human remains to a third party. After hydrolysis, an identifying disk, tab, or other permanent label shall be placed with the urn or hydrolyzed human remains container before the hydrolyzed human remains are released from the hydrolysis facility. Each identification disk, tab, or label shall contain the license number of the hydrolysis facility and shall have a unique number that shall be recorded on all documents regarding the decedent and in the hydrolysis log. Each hydrolysis facility shall maintain a written procedure for identification of remains. The identification requirements pertaining to an identifying disk, tab, or other label to be placed within the urn or hydrolyzed human remains container shall not apply to hydrolyzed human remains placed in a keepsake urn pursuant to subdivision (b) of Section 7054.6 if space does not permit.

(b) A hydrolysis facility that fails, when requested by an official of the Cemetery and Funeral Bureau, to produce a written procedure for identification of remains shall have 15 working days from the time of the request to produce an identification procedure for review by the chief of the Cemetery and Funeral Bureau. The license of the hydrolysis facility shall be suspended pursuant to Chapter 5 (commencing with Section 11500) of Part 1 of Division 3 of Title 2 of the Government Code, if no identification procedure is produced for review after 15 working days have elapsed.

**8378.** Within two hours after a licensed hydrolysis facility takes custody of a body that has not been embalmed, it shall refrigerate the body at a temperature not greater than 50 degrees Fahrenheit, unless the hydrolysis process will begin within 24 hours of the time that the hydrolysis facility took custody.

**8380.** (a) The hydrolysis facility licensee, or its authorized representatives, shall provide instruction to all hydrolysis facility personnel involved in the hydrolysis process. This instruction shall lead to a demonstrated knowledge on the part of an employee regarding identification procedures used during hydrolysis, operation of the hydrolysis chamber and processing equipment, safe work practices and procedures for the handling of corrosive materials, and all laws relevant to the handling of a body and hydrolyzed human remains. This instruction shall be outlined in a written plan maintained by the hydrolysis facility licensee for inspection and comment by an inspector of the Cemetery and Funeral Bureau.

(b) No employee shall be allowed to operate any hydrolysis equipment until the employee has demonstrated to the certified manager of a licensed hydrolysis facility or authorized representative of the licensee that the employee understands the procedures required to ensure that health and safety conditions are maintained at the hydrolysis facility and that hydrolyzed human remains are not commingled other than for acceptable residue, as defined. The hydrolysis facility licensee shall maintain a record to document that an employee has received the training specified in this section.

(c) A hydrolysis facility that fails, when requested by an official of the bureau, to produce a written employee instruction plan or record of employee training for inspection shall have 15 working days from the time of the request to produce a plan or training record for review by the chief of the Cemetery and Funeral Bureau. The license of a hydrolysis facility shall be suspended, pursuant to Chapter 5 (commencing with Section 11500) of Part 1 of Division 3 of Title 2 of the Government Code, if no plan or training record is produced for review after 15 working days have elapsed.

**8382.** This article shall become operative on July 1, 2020.

**SEC. 70.** Section 103055 of the Health and Safety Code is amended to read:

**103055.** (a) If the certificate of death is properly executed and complete, the local registrar of births and deaths shall issue a permit for disposition that, in all cases, shall specify any one of the following:

- (1) The name of the cemetery where the remains shall be interred.
  - (2) Burial at sea as provided in Section 7117.
  - (3) The address or description of the place where remains shall be buried or scattered.
  - (4) The address of the location where the cremated remains will be kept, as provided in Section 7054.6, under the conditions the state registrar may approve, including, but not limited to, conditions in keeping with public sensibilities, applicable laws, and reasonable assurances that the disposition will be carried out in accordance with the prescribed conditions and will not constitute a private or public nuisance.
- (b) Notwithstanding any other provisions of this part relative to issuance of a permit for disposition, whenever the death occurred from a disease declared by the state department to be infectious, contagious, or communicable and dangerous to the public health, no permit for the disposition of the body shall be issued by the local registrar, except under those conditions as may be prescribed by the state department and local health officers.
- (c) This section shall remain in effect only until July 1, 2020, and as of that date is repealed.

**SEC. 71.** Section 103055 is added to the Health and Safety Code, to read:

**103055.** (a) If the certificate of death is properly executed and complete, the local registrar of births and deaths shall issue a permit for disposition, that in all cases, shall specify any one of the following:

- (1) The name of the cemetery where the remains shall be interred.
  - (2) Burial at sea as provided in Section 7117.
  - (3) The address or description of the place where remains shall be buried or scattered.
  - (4) The address of the location where the cremated remains or hydrolyzed human remains will be kept, as provided in Section 7054.6, under the conditions the state registrar may approve, including, but not limited to, conditions in keeping with public sensibilities, applicable laws, and reasonable assurances that the disposition will be carried out in accordance with the prescribed conditions and will not constitute a private or public nuisance.
- (b) Notwithstanding any other provisions of this part relative to issuance of a permit for disposition, whenever the death occurred from a disease declared by the state department to be infectious, contagious, or communicable and dangerous to the public health, no permit for the disposition of the body shall be issued by the local registrar, except under those conditions as may be prescribed by the state department and local health officers.
- (c) This section shall become operative on July 1, 2020.

**SEC. 72.** Section 103060 of the Health and Safety Code is amended to read:

**103060.** (a) A permit for disposition for the purpose of removing cremated remains from the place of cremation or interment shall include a description of the final place of disposition sufficient to identify the place and shall be issued by the local registrar to the person having the right to control the disposition of the remains under Section 7100 upon the application of that person.

(b) A permit for disposition shall be issued under this section only upon the signed acknowledgment by the person making application that trespass and nuisance laws apply to the disposition and that the permit gives no right of unrestricted access to property not owned by the person for the purpose of disposing of the remains.

(c) The person to whom the permit for disposition was issued shall sign the permit, endorse upon it the date of final disposition and, within 10 days, return the first copy of the permit so endorsed to the local registrar of the district in which the disposition took place. The third copy of the permit shall be returned to the office of issuance. After one year, the local registrar may destroy any original or duplicate permit retained by him or her pursuant to this section.

(d) This section shall remain in effect only until July 1, 2020, and as of that date is repealed.

**SEC. 73.** Section 103060 is added to the Health and Safety Code, to read:

**103060.** (a) A permit for disposition for the purpose of removing cremated remains or hydrolyzed human remains from the place of cremation, hydrolysis, or interment shall include a description of the final place of disposition sufficient to identify the place and shall be issued by the local registrar to the person having the right to control the disposition of the remains under Section 7100 upon the application of that person.

(b) A permit for disposition shall be issued under this section only upon the signed acknowledgment by the person making application that trespass and nuisance laws apply to the disposition and that the permit gives no right of unrestricted access to property not owned by the person for the purpose of disposing of the remains.

(c) The person to whom the permit for disposition was issued shall sign the permit, endorse upon it the date of final disposition and, within 10 days, return the first copy of the permit so endorsed to the local registrar of the district in which the disposition took place. The third copy of the permit shall be returned to the office of issuance. After one year, the local registrar may destroy any original or duplicate permit retained by him or her pursuant to this section.

(d) This section shall become operative on July 1, 2020.

**SEC. 74.** Section 103080 of the Health and Safety Code is amended to read:

**103080.** (a) The person in charge of the place of interment, or the funeral director or person acting as funeral director if no person is in charge, shall sign the permit, endorse upon it the date of interment or cremation, and, within 10 days, return the first copy of the permit so endorsed to the local registrar of the district in which the interment took place. The third copy of the permit shall be returned to the office of issuance. After one year, the local registrar may destroy any original or duplicate permit retained by the local registrar pursuant to this section.

(b) This section shall remain in effect only until July 1, 2020, and as of that date is repealed.

**SEC. 75.** Section 103080 is added to the Health and Safety Code, to read:

**103080.** (a) The person in charge of the place of interment, or the funeral director or person acting as funeral director if no person is in charge, shall sign the permit, endorse upon it the date of interment, hydrolysis, or cremation, and, within 10 days, return the first copy of the permit so endorsed to the local registrar of the district in which the interment took place. The third copy of the permit shall be returned to the office of issuance. After one year, the local registrar may destroy any original or duplicate permit retained by the local registrar pursuant to this section.

(b) This section shall become operative on July 1, 2020.

**SEC. 76.** No reimbursement is required by this act pursuant to Section 6 of Article XIII B of the California Constitution because a local agency or school district has the authority to levy service charges, fees, or assessments sufficient to pay for the program or level of service mandated by this act or because costs that may be incurred by a local agency or school district will be incurred because this act creates a new crime or infraction, eliminates a crime or infraction, or changes the penalty for a crime or infraction, within the meaning of Section 17556 of the Government Code, or changes the definition of a crime within the meaning of Section 6 of Article XIII B of the California Constitution.

**SB-982**

Submitted on: 2/13/2021 9:03:35 AM

Testimony for HWN on 2/16/2021 1:00:00 PM

<b>Submitted By</b>	<b>Organization</b>	<b>Testifier Position</b>	<b>Present at Hearing</b>
Mitchell Dodo	Testifying for Dodo Mortuary, Inc.	Oppose	No

Comments:

I concur with the concerns and position of the Hawaii Funeral & Cemetery Association and am in opposition of the passage of SB982 "Relating to Burials" in its current form.



STATEMENT IN OPPOSITION TO SB982 FROM  
MILILANI GROUP, INC. d.b.a. MILILANI MEMORIAL PARK & MORTUARY

TO: COMMITTEE ON HAWAIIAN AFFAIRS  
Senator Maile S.L. Shimabukuro, Chair  
Senator Jarrett Keohokalole, Vice Chair

COMMITTEE ON HEALTH  
Senator Jarrett Keohokalole, Chair  
Senator Rosalyn H. Baker, Vice Chair

SUBJECT: SENATE BILL 982 "A Bill Relating to Burials"

HEARING DATE: Tuesday, February 16, 2021; 1:00 P.M.

This statement is made on behalf of Mililani Group, Inc., a company doing business as Mililani Memorial Park and Mortuary (hereafter called "Mililani").

Mililani **OPPOSES** the proposed changes to SB982 "Relating to Burials" which advocate for the introduction of alternate methods for disposition of human remains. Mililani respects all cultural traditions of our island families, but as an operator is aware that adequate discussions have not taken place to address the full ramifications of each such disposal process, both from necessary requirements that should be issued by the overseeing governmental agencies as well as a statement of an operator's responsibilities prior to passage of this bill.

Mililani has been engaged in the business of funeral service and cemetery operations for more than 50 years and during this period of time, has been able to deliver our services in a professional and highly competent manner. Based on our years of expertise, we strongly contend that there is insufficient detail and conflicting information so as to permit this bill to advance.

FOR THE ABOVE REASONS, Mililani stands in opposition of the proposed SENATE BILL 982.

RESPECTFULLY SUBMITTED,

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EADEAN BUFFINGTON, Vice President

## Nuuanu Memorial Park

2233 Nuuanu Avenue  
Honolulu, Hawaii 96817  
Phone (808) 537-5255

To: Committee on Hawaiian Affairs  
Senator Maile S.L. Shimabukuro, Chair  
Senator Jarrett Keohokalole, Vice Chair

Committee of Health  
Senator Jarrett Keohokalole, Chair  
Senator Rosalyn H. Baker, Vice Chair

Hearing date/time: February 16, 2021 1:00pm

Dear Committee Chairs and Committee Chairs:

My name is Alice K. Hahn, President of Nuuanu Memorial Park & Mortuary. Nuuanu Memorial Park & Mortuary is in opposition to SB982 relating to burials.

Our company agrees with the concerns and position of the Hawaii Funeral & Cemetery Association. I have attached its testimony.



Alice K. Hahn  
President  
Nuuanu Memorial Park & Mortuary  
2233 Nuuanu Avenue  
Honolulu, HI 96817  
Ph: (808) 537-5255  
February 12, 2021



Hawaii Funeral & Cemetery Association, Inc.  
1330 Maunakea Street, Honolulu, Hawaii 96817

Written Testimony in Opposition of  
SB982 – Relating to Burials

February 12, 2021

To: COMMITTEE ON HAWAIIAN AFFAIRS  
Senator Maile S.L. Shimabukuro, Chair  
Senator Jarrett Keohokalole, Vice Chair

COMMITTEE ON HEALTH  
Senator Jarrett Keohokalole, Chair  
Senator Rosalyn H. Baker, Vice Chair

HEARING DATE/TIME: February 16<sup>th</sup>, 2021 / 1:00pm

Dear Committee Chairs and Committee Members

My name is Jay Morford, President and Legislative Chair for the Hawaii Funeral and Cemetery Association, Inc. ("HFCA"). The HFCA is in **Opposition** to SB982 ("Bill") "Relating to Burials".

The HFCA would like to provide comment why we oppose SB982 in its current form.

We feel there is not sufficient information to support the disposition of Natural Organic Reduction or Alkaline Hydrolysis and the overall effects to the environment. The HFCA supports the choice of alternative forms of disposition, however, because of the conflicting information concerning these processes, there should be a full discussion of regulatory agency(s) oversight regarding the technology, facilities, environmental impact and the operators licensing prior to moving this bill forward.

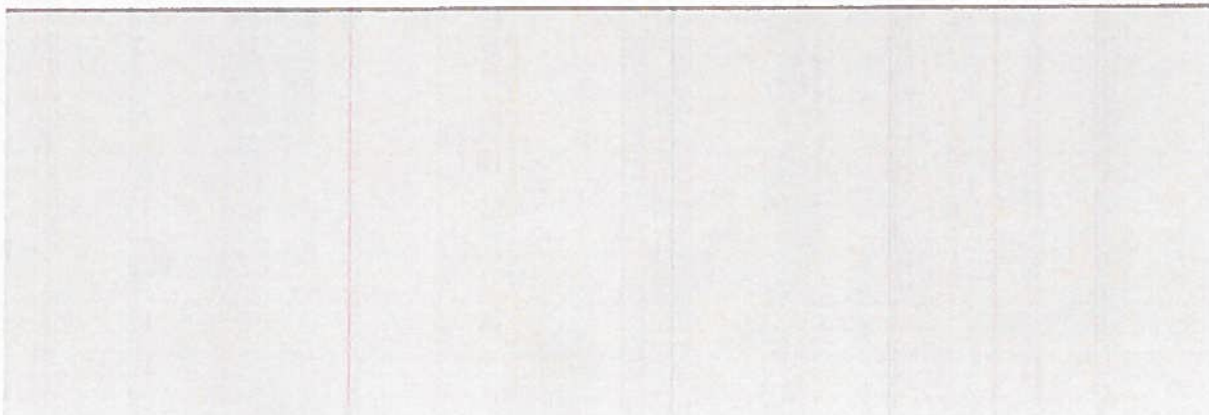
We would like to highlight just a few points of concern regarding these forms of disposition.

**Natural Organic Reduction:**

Based on the information we have the first human composting facility opened February 2021 in Seattle Washington. [Human composting facility begins operations February 8, 2021 | Rebecca Coons](#)  
*In Seattle, the world's first human composting facility has begun operations, although it is unclear if it has had any "customers" yet. Dubbed Recompose, the process uses "Recomposition Vessels" to turn human remains into soil that family can collect and use in their own gardens. For \$5,400, remains are covered with biomass, including wood chips, alfalfa, and straw grass, under aeration to promote decomposition by microbes and bacteria. The average human can be converted into a square meter of soil—approximately seven wheelbarrows—in a month. The process also creates less carbon dioxide and requires far less energy than cremation.*

We have concerns with the length of time to transform the decedent into compost and questions regarding the appropriate state department that will have oversight. Other concerns that need to be addressed are:

- 1) The entire process takes about 30 days for the composting process to be complete, the bodies are covered with wood chips and aerated.
- 2) Once the process is complete there is approximately "1.5 - 2" cubic yard of compost, including the decedent's remains could weigh in excess of 1,000 - 2,000 pounds, for example, a cubic yard of soil weighs 2,000 pounds that will need to be delivered to, or taken by, the family. Due to the sensitivities associated with the care and



- handling of remains, HFCA believes that greater clarity needs to be provided regarding the entire process, the nature of the providers, and how the decedent's remains will be transported upon leaving the compost facility.
- 3) The manner in which the decedent and the compost will be transferred to the family and redeposited.

**Alkaline Hydrolysis (AH):** HFCA's concerns regarding this process are:

- 1) The amount of water used per decedent. We all endeavor to be stewards of the environment. HFCA's understanding is that approximately 300 gallons of potable water is used in this process.
- 2) HFCA understands that the discharge from an Alkaline Hydrolysis facility into the sewer system exceeds a PH level of 11. HFCA believes this is something that the Legislature must consider. In areas like San Francisco, the highest PH level that can go in the sewer system is PH 9.
- 3) HFCA understands that the overall process takes up to an entire day with approximately 20%-30% more remains than a traditional cremation. This increased amount could impact families negatively from the standpoint of needing either a larger container (Urn) or an additional container to hold the addition remains, which would likely have a greater cost.

**Hawaiian Burial Practices relating to Alkaline Hydrolysis:** HFCA is in strong support with all cultural traditions and providing people choices of disposition. However, we have concerns as to whether this is a cleaner or more environmentally friendly process and believe those concerns should be studied prior to enactment. In regards to embalming fluid and other chemicals, there are no studies which show any water or ground contamination from embalmed bodies. To the contrary, there are studies that demonstrate otherwise. Hawaii has a 65% -70% cremation rate, much of that related to cultural preference. The Department of Health Clean Air Branch regulates the crematories in the State of Hawaii. To HFCA's knowledge, there is no evidence or studies which show that crematories contribute to poor air quality.

With respect to Hawaiian burial practices, once the alkaline hydrolysis process is completed, the facility would not process the skeletal remains, as is customary in a crematory cremation process, as that the skeletal remains remain intact for interment. (Photo Attached).

There are specific issues that should be addressed specifically relating to this process.

1. Department of Health Permit Requirements; Burial Permit or Cremation Disposition Permit
  - a. The first relates to how to characterize the final disposition practice of "Traditional Hawaiian Burials". HFCA spoke with the previous registrar, Dr. Alvin Onaka (DOH), prior to his retirement regarding how to characterize traditional Hawaiian burial in terms of disposition. It was explained that the final disposition permit would ultimately depend on each Hawaiian practitioner's determination. HFCA does not believe this determination has occurred, and recommends that occur by engaging the Kapuna involved with initiating the legislation that changed the penal code which now specifically allows Traditional Hawaiian Burials.

There should also be formal discussion with the Department of Health and other regulatory agencies regarding the necessary permitting that will be required to operate an alkaline hydrolysis facility, where such a facility can be operated, and who can operate a facility. For instance, should licensed mortuaries only be allowed to operate these type of facilities.

Additionally, the cremation disposition permit does not currently require a place of burial to be documented. We have included California regulation Section 1. 7611.9 Of the Business and Professions Code, which provides insight of regulation that needs to be considered for these facilities. When these regulations were adopted, they contemplated that the cremated remains would subsequently be processed further using a machine to pulverize the cremated remains. It did not consider the Hawaiian "long bone" iwi, which concerns the appropriate process, as well as the issue of what the disposition permit should capture.

While it is ultimately the Legislature's determination, it is worth noting that groups have questioned whether this chemical process is a respectful and dignified way to handle human remains. For example, the Catholic Conference of Ohio addressed proposed legislation in that state and took the position that "Dissolving bodies in a vat of chemicals and pouring the resultant liquid down the drain is not a respectful way to dispose of human remains." Source: [nolo.com/legal-encyclopedia/alkaline-hydrolysis](http://nolo.com/legal-encyclopedia/alkaline-hydrolysis)

**The HFCA does not agree that Alkaline Hydrolysis or Natural Organic Reduction process will be more cost effective.**

Alkaline hydrolysis equipment is expensive. Depending on the size of the unit, the cost to purchase an Alkaline Hydrolysis unit is between \$150,000 and \$400,000. This variance is due to the size of the machine as well as the temperature and pressure at which the system can operate. A Higher temperature and greater pressure result in faster decomposition, which is also more expensive. Because the equipment costs more than traditional cremation machinery, the procedure may be more expensive for consumers.

HFCA also believes Natural Organic Reduction will be more expensive than a simple cremation in Hawaii. Source: [2021 in Seattle Washington Human composting facility begins operations](#)

Currently, Hawaii consumers can obtain a simple cremation for approximately \$1000. While this alone should not inhibit the ability to offer such services, it is a consideration that the Legislature should take into account.

Thank you for your consideration. HFCA remains in favor of offering consumers greater choice and believe that a full discussion should be had regarding the above issues before any legislation is advanced.

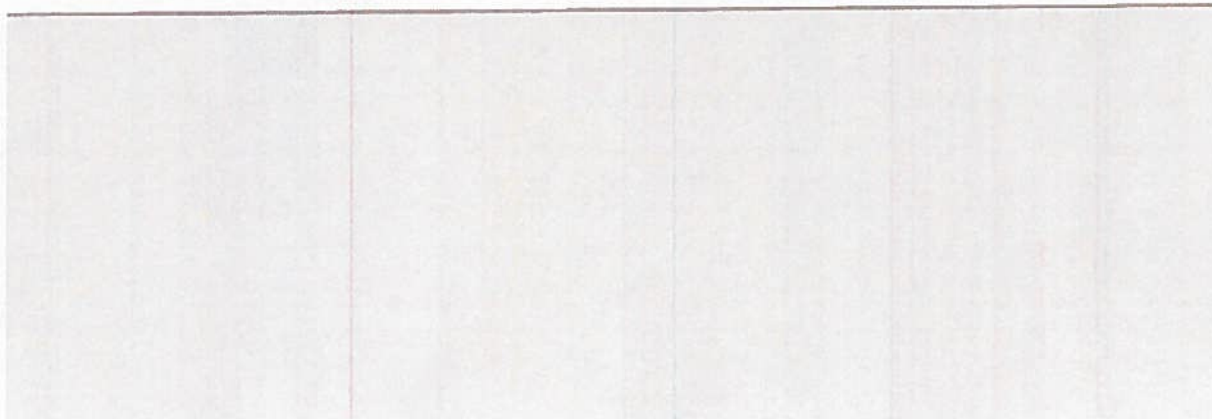
Mahalo,



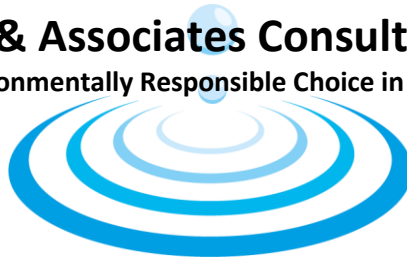
Jay Mofford, President

Hawaii Funeral & Cremation Association

Cc: Elizabeth A Char, MD -Director of the Department of Health  
Catherine P. Awakuni Colón- Director of the Department of Commerce and Consumer Affairs



**Fisher & Associates Consulting, LLC**  
"The Environmentally Responsible Choice in Cremation"



RE: Testimony in Support of **SB982**-

My name is Dean Fisher and I am a licensed funeral director who has a bachelor of science in Mortuary Science from the University of Minnesota (1984). I have spent 32 years directing Anatomical Bequest Programs for 2 major institutions. I recently retired as the Director of the Donated Body Program at the University of California in Los Angeles (12 years) and am a pioneer of the alkaline hydrolysis technology that began at the Mayo Clinic (20 years) in Rochester, Minnesota. I am a strong advocate for alkaline hydrolysis use for human remains.

I believe in the technology so much that I have purchased 2 alkaline hydrolysis machines and have partnered with a funeral home in the Twin Cities metropolitan area and a large cremation company in Los Angeles.

I have successfully served on multiple committees, given testimony and assisted the states of Minnesota, Maryland, Missouri, Oregon, Washington, and California in drafting and passing legislation that allows the use of alkaline hydrolysis in a safe and accurate manner.

We pioneered the technology back in 2006 while at the Mayo Clinic and implemented it in California in 2012 while at UCLA. We have safely completed over 5000 disposition cycles during this timeframe. We have worked vigorously with the UCLA Department of Environmental Health and Safety, California & Minnesota Departments of Public Health, and the City of Los Angeles-Sanitation Division to ensure environmental and public health safety. The reason I say "We" is because I have been blessed to have collaborated with many brilliant minds along the way, including doctors, engineers, infection control, water testing and recycling specialists, and legislative experts who all see the value and support this technology, not only for the environment, but to offer this choice of disposition to the public.

Alkaline hydrolysis is a water-based dissolution process for human remains that uses alkaline chemicals, heat, agitation, and pressure, to accelerate natural decomposition. In 2010, the Cremation Association of North America changed its definition of cremation to include alkaline hydrolysis. (3) There are 3 byproducts of the alkaline hydrolysis process: liquid water, prosthetics in the body, and bone fragments or cremated remains.

The liquid is considered a sterile wastewater, with no remaining DNA and is discharged with the permission of the local wastewater treatment authority, in accordance with federal, state, and local laws. This technology has already been used in Hawaii for the past 15 years for veterinary

purposes at the University of Hawaii. The volume of liquid is under 300 gallons per cycle and is easily treatable by the local municipality and released back into an aquifer. There are also current studies being conducted at this time to apply the effluent to land applications as a fertilizer for different crops. The prosthetics are recycled by the same companies that service the flame cremation industry, and the sterile cremated remains are returned to the legal next of kin.

The environmental benefits from alkaline hydrolysis in comparison to current traditional cremation and burial practices includes the following:

- Greater than 75% reduction of carbon footprint
- No mercury emissions from dental fillings
- Uses 1/8 the amount of energy of flame-based cremation
- Battery-operated pacemakers and other medical devices do not need to be removed prior to beginning the process
- Harmful poly-carbons from catheters, breast implants, and hernia mesh are not emitted into the air or ground water

To fully understand alkaline hydrolysis, you must understand autoclave technology. An autoclave sterilizes doctor's and dentist's instruments after a surgical procedure. It is critical that the instruments used in surgery are sterile to irradicate the spread of potential harmful pathogens, such as Covid-19, Anthrax, Tuberculosis, Diphtheria, Influenza and other airborne diseases. The CDC guidelines (1) requires the sterilization process to achieve 250F for a minimum of 20 minutes to destroy any remaining pathogens that might be present. By heating to this temperature, the autoclave technology destroys the pathogens on the instruments; AND it also destroys any viral pathogens that might be in and around the airspace.

Mayo Clinic and UCLA use Resomation® Ltd. equipment, which operates at 302F for a minimum of 1 hour, destroying pathogens 60,000 times greater than the CDC guidelines. The remaining sterile fluid, which contains no DNA, is safely released to the city sanitation department for recycling; the prosthetics (hips, knees, pacemakers) that remain are sterile and sent to an approved metal recycling agent; and the sterile, cremated remains are safely returned to the next of kin.

The Department of Public Health in California approved the hydrolysis unit used by UCLA as an alternative medical waste treatment process (2). In this approval, the equipment and manufacturer had to demonstrate to the California Department of Public Health that the unit destroyed pathogens not only in the water, but also within the airspace. UCLA confirmed this by placing vials of "Pro-spores" (4) inside the unit, both in the water and the airspace. The vials were sent onto an independent testing agency that proved the process was sterile.

Currently, 20 states have passed legislation in support of the alkaline hydrolysis technology, including the entire west coast of Washington, Oregon, and California. It is also legal in several provinces in Canada, Scotland, Ireland, the Netherlands, and the United Kingdom. (3) When given the option of flame or alkaline hydrolysis, we are seeing that 60% of cremation customers

are selecting alkaline hydrolysis due to its gentleness and its environmentally friendly attributes.

The citizens of Hawaii deserve the opportunity to select alkaline hydrolysis when choosing final disposition. The Hawaiian culture is deep rooted, supports the stewardship of the environment and respects the Earth. With limited space on its islands for cemeteries and the continued threat of global warming, this technology would fit perfectly into the Hawaiian culture. I urge you to support alkaline hydrolysis into law as it will allow the citizens of Hawaii who are seeking a more culturally and environmentally friendly disposition a more affordable option than burial or flame cremation.

Kindest Regards,

***Dean R. Fisher***

Dean R. Fisher- Director  
Fisher and Associates Consulting  
deanfisher5995@gmail.com  
507-269-8906

- 1.) <https://www.cdc.gov/infectioncontrol/guidelines/disinfection/sterilization/sterilizing-practices.html>
- 2.) <https://www.cdph.ca.gov/Programs/CEH/DRSEM/CDPH%20Document%20Library/EMB/MedicalWaste/Alt%20Tech%20List%20%20050219.pdf>
- 3.) <https://www.cremationassociation.org/page/alkalinehydrolysis>
- 4.) <https://ehs.umass.edu/sites/default/files/Fact%20Sheet%2017%20Spore%20Testing.pdf>





Written Testimony in **Opposition** of  
SB982 – Relating to Burials

February 12, 2021

To: COMMITTEE ON HAWAIIAN AFFAIRS  
Senator Maile S.L. Shimabukuro, Chair  
Senator Jarrett Keohokalole, Vice Chair

COMMITTEE ON HEALTH  
Senator Jarrett Keohokalole, Chair  
Senator Rosalyn H. Baker, Vice Chair

HEARING DATE/TIME: February 16<sup>th</sup>, 2021 / 1:00pm

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Dear Committee Chairs and Committee Members

My name is Jay Morford, President of Hawaiian Memorial Life Plan, Ltd., (“HMLP”). HMLP is in **Opposition** to **SB982** (“Bill”) “Relating to Burials”.

HMLP represents 7 Mortuaries and 3 Cemeteries throughout the State of Hawaii and we concur and support the psotion of the HFCA and the comments they have provided to this committee.

HMLP agrees there is not sufficient information to support the disposition of Natural Organic Reduction or Alkaline Hydrolysis and the overall effects to the environment. HMLP also supports the choice of alternative forms of disposition, however, because of the conflicting information concerning these processes, there should be a full discussion of regulatory agency(s) oversight regarding the technology, facilities, environmental impact and the operators licensing prior to moving this bill forward.

We encourage the committee defer SB982 at this time.

Sincerely

Jay Morford  
President

**LATE**

# *Leeward Funeral Home*

849 4<sup>th</sup> Street • Pearl City, Oahu Hawaii, 96782  
Tel: (808) 455-1041 Fax: (808) 456-3121

## TESTIMONY IN OPPOSITION TO SB982

February 15, 2021

To: COMMITTEE ON HAWAIIAN AFFAIRS

COMMITTEE ON HEALTH:

Senator Maile S.L. Shimabukuro, Chair  
Senator Jarret Keohokaole, Vice Chair

Senator Jarret Keohokaole, Chair  
Senator Rosalyn H. Baker, Vice Chair

HEARING 1:00 p.m. February 16, 2021

My name is David Morikami, President and General Manager of Leeward Funeral Home, a locally owned licensed mortuary in the State of Hawaii, founded in 1967. In addition to having over 40 years of experience in the Hawaii funeral industry, I have also served as the President of the Hawaii Funeral Directors Association and have served as Hawaii's representative to the National Funeral Directors Association Policy Board, and a current director on the board of the Hawaii Funeral and Cemetery Association (HFCA).

I am submitting testimony in **opposition to SB982** "Relating to Burials." ) Our funeral firm supports the position of the HFCA in the testimony submitted to this committee regarding the alternate forms of disposition (Alkaline Hydrolysis and Natural Organic Reduction). We strongly advocate the need for full discussion of complete regulatory oversight (e.g. Facility and Operator Licensing, Environmental Impact, Technology, Consumer Protection, Ethics and accountability, etc.) for any form of disposition for a deceased human being not currently authorized in the State of Hawaii. We encourage the committee to defer SB982 at this time.

Thank you for the opportunity to testify.

Very truly yours,

LEEWARD FUNERAL HOME



David Morikami  
President/General Manager

February 15, 2021

COMMITTEE ON HAWAIIAN AFFAIRS

Senator Maile S.L. Shimabukuro, Chair  
Senator Jarrett Keohokalole, Vice Chair

COMMITTEE ON HEALTH

Senator Jarrett Keohokalole, Chair  
Senator Rosalyn H. Baker, Vice Chair

Subject: Testimony in Support of SB 982, Thursday, February 16, 2021, 1:00 p.m., by zoom.

Aloha,

I am writing in support of SB982, Relating to Burials that proposes to amend certain provisions of the Hawaii Revised Statutes, to include the use of alkaline hydrolysis, water cremation, and natural organic reduction as methods for the disposal of human remains. It further proposes to amend the procedures for the resolution of disputes regarding the right of disposition, the right to rely and act upon written instructions in a funeral service agreement or similar document, and provisions for the disposition of a decedent's remains and recovery of reasonable expenses to include hydrolysis facilities and natural organic reduction facilities.

The proposed amendments are founded in the need to accommodate traditional Hawaiian burial practices, though no mention of traditional Hawaiian burial practices is made in the HRS sections being amended by SB982.

I note another bill under consideration by the Senate concerning traditional Hawaiian burials. SB1021 would prohibit selling, transferring, conveying, or otherwise disposing of or offering for sale any plots, crypts, or niches having an authorized capacity limit of fewer than ten sets of cremated human remains or burials prepared consistent with traditional Hawaiian cultural customs and practices. Includes the use of alkaline hydrolysis, water cremation, and natural organic reduction as methods for the disposal of human remains. Amends the procedures for the resolution of disputes regarding the right of disposition, the right to rely and act upon written instructions in a funeral service agreement or similar document, and provisions for the disposition of a decedent's remains and recovery of reasonable expenses to include hydrolysis facilities and natural organic reduction facilities. (SD1). A like bill, HB680 is also consideration by the House.

I also support SB1021, but note that questions were raised about what constitutes traditional Hawaiian burials. Thus offer the following explanation to distinguish between Native Hawaiian

traditional ways of preparing the human corpse and Native Hawaiian traditional ways of burial in the hopes that this explanation will be helpful in support of both measures.

### Traditional Hawaiian cultural customs and practices

#### Preparing the human corpse and burial

Preparing the human corpse: Traditionally, human corpse was treated by umu (above ground ovens) and the use of caves for natural decomposition so as to result in leaving the bones intact and unharmed. Modern ways that result in similar effect is cremation and the use of alkaline hydrolysis or water cremation, or natural organic reduction as cleaner, gentler, and more environmentally friendly processes. Except for cremation, the use of the latter are not currently in statute; SB982 and SB 1021 propose to add the latter to certain provisions of Hawaii Revised Statutes.

Burial: The traditional ways of interring the remains was iwi (bones) in a kapa, lauhala, hina'l (woven basket), and 'umeke (bowl or calabash), in their natural state. These same methods continue today.

Bottomline: Urge passage of SB982 as a means to support Native Hawaiian burial practices that are deeply integral to Hawaiian culture and identity.

Respectfully

Leimomi Khan

*From the Desk of:*

Luana Alapa

2935 Farrington Ave  
Ho'olehua, HI 96729  
luanaalapa@gmail.com

January 15, 2021

**Testimony in Support of HB680 & SB982 Hawaiian Style Burials & Alkaline Hydrolysis**  
Committee on Judiciary & Hawaiian Affairs

Aloha Honorable Chair Mark Nakashima & Honorable Vice Chair Scot Matayoshi,

I am Luana Alapa, a Native Hawaiian and graduate of the Kamehameha Schools. I am of native Hawaiian ancestry, raised in Laie, Oahu and currently residing in Ho'olehua, Hawaiian Homelands on Molokai Island. I attended the University of Hawai'i at Manoa, and received my Bachelor of Arts degree in Psychology in 1985. I was crowned Miss Hawaii in 1987, traveled the world promoting Hawaii and later became an entrepreneur owning several businesses including several retail stores and a production company specializing in fashion, entertainment events. Currently working as an insurance agent. In 2020, I was elected as the Office of Hawaiian Affairs Trustee for the Island of Molokai.

I strongly support this legislation and urge the State Legislature to pass this measure. I support this Bill for two reasons:

**1. Alkaline Hydrolysis technology will allow & facilitate the effort of our Hawaiian community to bury our ohana (family) in a more 'Hawaiian' way.**

The traditional Hawaiian burial practices are well known & documented. They involved the steaming of the body in an imu (earth Oven) and the removal of the long bones which were secreted away to a location known only to the family. The rest of the remains were taken to the sea.

For several generations, Hawaiians have not been able to engage in these practices because there was no technology available in Hawaii that could provide the desired results in a sanitized, safe and culturally appropriate way. This measure will bring that technology to Hawaii and raise the number of U.S. States currently benefitting from Alkaline Hydrolysis to 21 nationwide.

Hawaiians have not had any cultural option for burial since the Overthrow. Because of this, the HCC (Hawaiian Civic Clubs) sponsored legislation to gain support for a more cultural method for burial in 2012. The outcome was not what was expected and did not facilitate Hawaiian style burials. The outcome resulted in an amendment to HRS sec. 711- 11 that said.....

"§711-1108 Abuse of a corpse. (1) A person commits the offense of abuse of a corpse if, except as authorized by law, the person treats a human corpse in a way that the person knows would outrage ordinary family sensibilities.

**(2) The preparation of a corpse for burial or cremation in a manner consistent with traditional Hawaiian cultural customs and practices shall not be a violation of this section.**

1.

**(3) The burial or cremation of a corpse prepared consistent with traditional Hawaiian cultural customs and practices shall not be a violation of this section."**

The changes decriminalized Hawaiian Burial practices but did not legalize them because there was no technology to facilitate the burial process in Hawaii.

In reality, the technology has been in existence in the U.S. & throughout the world for over 20 years, but it is not in Hawaii because the Funeral Industry in Hawaii has not wanted to upgrade their old technology with new technology at a cost of approximately \$200,000.00 dollars. Funeral Companies in Hawaii have only offered two choices for services: 'whole body burials' (for Christian) and Flame Cremation (for Buddhists). To this day there is no funeral service in Hawaii that can return to families the clean sterile long bones of their deceased and clean sterile water for the sea. Fortunately for Hawaiians, there is now a local Hawaiian Funeral Service Business that is making a commitment for our people. They are **Aloha Funeral Services**

**2. THIS LEGISLATION HAS NO FISCAL RAMIFICATION FOR OUR STATE BUT IT HAS A HUGE BENEFIT FOR HAWAII IN THESE TIMES OF GLOBAL PANDEMICS BECAUSE IT CAN TREAT HUMAN REMAINS & STERILIZE THEM REGARDLESS OF THE CAUSE OF DEATH.**

Alkaline Hydrolysis, is also a critical component of scientific research relating to contagious diseases (human & animal) and is used globally by laboratories conducting research into pandemics for this reason.

This technology can protect Hawaii from the spread of contagion in the event that Hawaii has another COVID-like problem in the future with a virus or other fatal epidemic. There is significant data on the Internet that reviews the use & development of AH technology, as well as data from research conducted by the Mayo Clinic and UCLA. Please watch these videos, they are brief & informative...

[https://www.youtube.com/watch?v=G9HMKF\\_sFV8&t=7s](https://www.youtube.com/watch?v=G9HMKF_sFV8&t=7s)  
<https://www.youtube.com/watch?v=7Le7rLbkFe4>  
<https://www.cnet.com/features/the-misunderstood-funeral-tech-thats-illegal-in-30-states/> <https://newrepublic.com/article/148997/fight-right-cremated-water-rise-alkaline-hydrolysis-america>

Mahalo for Supporting this Bill,

*Luana Alapa*

---

Luana Alapa, Trustee, Office of Hawaiian Affairs,  
Molokai Island

**Fisher & Associates Consulting, LLC**  
"The Environmentally Responsible Choice in Cremation"



To: Committee on Judiciary & Hawaiian Affairs  
Honorable Chair Mark Nakashima & Honorable Vice Chair Scot Matayoshi

**RE: Testimony in Support of HB680 & SB982 \_\_\_\_\_ -**

**My name is Dean Fisher and I am a licensed funeral director who has a bachelor of science in Mortuary Science from the University of Minnesota (1984). I have spent 32 years directing Anatomical Bequest Programs for 2 major institutions. I recently retired as the Director of the Donated Body Program at the University of California in Los Angeles (12 years) and am a pioneer of the alkaline hydrolysis technology that began at the Mayo Clinic (20 years) in Rochester, Minnesota. I am a strong advocate for alkaline hydrolysis use for human remains.**

**I believe in the technology so much that I have purchased 2 alkaline hydrolysis machines and have partnered with a funeral home in the Twin Cities metropolitan area and a large cremation company in Los Angeles.**

**I have successfully served on multiple committees, given testimony and assisted the states of Minnesota, Maryland, Missouri, Oregon, Washington, and California in drafting and passing legislation that allows the use of alkaline hydrolysis in a safe and accurate manner.**

**We pioneered the technology back in 2006 while at the Mayo Clinic and implemented it in California in 2012 while at UCLA. We have safely completed over 5000 disposition cycles during this timeframe. We have worked vigorously with the UCLA Department of Environmental Health and Safety, California & Minnesota Departments of Public Health, and the City of Los Angeles-Sanitation Division to ensure environmental and public health safety. The reason I say "We" is because I have been blessed to have collaborated with many brilliant minds along the way, including doctors, engineers, infection control, water testing and recycling specialists, and legislative experts who all see the value and support this technology, not only for the environment, but to offer this choice of disposition to the public.**

**Alkaline hydrolysis is a water-based dissolution process for human remains that uses alkaline chemicals, heat, agitation, and pressure, to accelerate natural decomposition. In 2010, the Cremation Association of North America changed its definition of cremation to include alkaline hydrolysis. (3) There are 3 byproducts of the alkaline hydrolysis process: liquid water, prosthetics in the body, and bone fragments or cremated remains.**

**The liquid is considered a sterile wastewater, with no remaining DNA and is discharged with the permission of the local wastewater treatment authority, in accordance with federal, state, and local laws. This technology has already been used in Hawaii for the past 15 years for veterinary**

purposes at the University of Hawaii. The volume of liquid is under 300 gallons per cycle and is easily treatable by the local municipality and released back into an aquifer. There are also current studies being conducted at this time to apply the effluent to land applications as a fertilizer for different crops. The prosthetics are recycled by the same companies that service the flame cremation industry, and the sterile cremated remains are returned to the legal next of kin.

The environmental benefits from alkaline hydrolysis in comparison to current traditional cremation and burial practices includes the following:

- Greater than 75% reduction of carbon footprint
- No mercury emissions from dental fillings
- Uses 1/8 the amount of energy of flame-based cremation
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- Harmful poly-carbons from catheters, breast implants, and hernia mesh are not emitted into the air or ground water

To fully understand alkaline hydrolysis, you must understand autoclave technology. An autoclave sterilizes doctor's and dentist's instruments after a surgical procedure. It is critical that the instruments used in surgery are sterile to irradicate the spread of potential harmful pathogens, such as Covid-19, Anthrax, Tuberculosis, Diphtheria, Influenza and other airborne diseases. The CDC guidelines (1) requires the sterilization process to achieve 250F for a minimum of 20 minutes to destroy any remaining pathogens that might be present. By heating to this temperature, the autoclave technology destroys the pathogens on the instruments; AND it also destroys any viral pathogens that might be in and around the airspace.

Mayo Clinic and UCLA use Resomation® Ltd. equipment, which operates at 302F for a minimum of 1 hour, destroying pathogens 60,000 times greater than the CDC guidelines. The remaining sterile fluid, which contains no DNA, is safely released to the city sanitation department for recycling; the prosthetics (hips, knees, pacemakers) that remain are sterile and sent to an approved metal recycling agent; and the sterile, cremated remains are safely returned to the next of kin.

The Department of Public Health in California approved the hydrolysis unit used by UCLA as an alternative medical waste treatment process (2). In this approval, the equipment and manufacturer had to demonstrate to the California Department of Public Health that the unit destroyed pathogens not only in the water, but also within the airspace. UCLA confirmed this by placing vials of "Pro-spores" (4) inside the unit, both in the water and the airspace. The vials were sent onto an independent testing agency that proved the process was sterile.

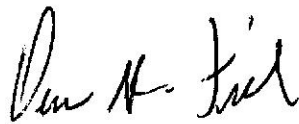
Currently, 20 states have passed legislation in support of the alkaline hydrolysis technology, including the entire west coast of Washington, Oregon, and California. It is also legal in several provinces in Canada, Scotland, Ireland, the Netherlands, and the United Kingdom. (3) When given the option of flame or alkaline hydrolysis, we are seeing that 60% of cremation customers



are selecting alkaline hydrolysis due to its gentleness and its environmentally friendly attributes.

The citizens of Hawaii deserve the opportunity to select alkaline hydrolysis when choosing final disposition. The Hawaiian culture is deep rooted, supports the stewardship of the environment and respects the Earth. With limited space on its islands for cemeteries and the continued threat of global warming, this technology would fit perfectly into the Hawaiian culture. I urge you to support alkaline hydrolysis into law as it will allow the citizens of Hawaii who are seeking a more culturally and environmentally friendly disposition a more affordable option than burial or flame cremation.

Kindest Regards,



Dean R. Fisher- Director  
Fisher and Associates Consulting  
deanfisher5995@gmail.com  
507-269-8906

1.) <https://www.cdc.gov/infectioncontrol/guidelines/disinfection/sterilization/sterilizing-practices.html>

2.) <https://www.cdph.ca.gov/Programs/CEH/DRSEM/CDPH%20Document%20Library/EMB/MedicalWaste/Alt%20Tech%20List%20%20050219.pdf>

3.) <https://www.cremationassociation.org/page/alkalinehydrolysis>

4.) <https://ehs.umass.edu/sites/default/files/Fact%20Sheet%2017%20Spore%20Testing.pdf>

Phyllis Coochie Cayan  
94-1429 Polani Street #V  
Waipahu, HI 96797

Testimony in Support of Hawaiian Style Burials & Alkaline Hydrolysis

Aloha Legislators,

I am Phyllis Coochie Cayan. I am a Native Hawaiian, born, raised and educated in Hawaii. For many years, I have been an intermittent member of the Hawaiian Civic Club of Honolulu. I was one of the first board members of Hui Malama I Na Kupuna O Hawaii Nei, the group that is identified in federal legislation to facilitate repatriation of Hawaiian Iwi (human remains & bones) from Museums & private collections back to Hawaii.

I strongly support this legislation for the following reasons:

1. This Bill will finally address the right of Hawaii's native people (Kanaka Maoli) to have a culturally appropriate method for treatment of the remains of their family and Kupuna. In traditional times, the bodies of the deceased were steamed in an imu by the sea, and following this, the long bones which were sterilized by steam were removed & the rest of the remains were returned to the sea. (See links.)

2. For the past several years ( 2012-2015) members & Chapters of the Hawaiian Civic Clubs have sought a solution to the need in our community for a more traditional process for burial. Our efforts were brought to the State Legislature, but no workable solution has emerged because the traditional Imu approach is no longer feasible and the funeral industry in Hawaii has not wanted to assume the cost (\$200,000.00 per unit) for the technology to facilitate Cultural burial practices for our Hawaiian people.

3. Today there is new technology that can achieve our goal with the complete cleansing of human bones and their sterilization, and a sterile water based solution that can be safely treated as effluent or returned to the Sea. This technology is Alkaline Hydrolysis. It is now being utilized in 20 States. It is also a critical component of scientific research into contagious diseases (human & animal) and is used globally by laboratories conducting research into pandemics for this reason.

1.

4. I recommend that the Legislators read the following information on this technology because I believe that this technology can facilitate our people with culturally appropriate burials and it can protect Hawaii from the spread of contagion in the event that Hawaii has another COVID-like problem in the future with a virus or other fatal epidemic.

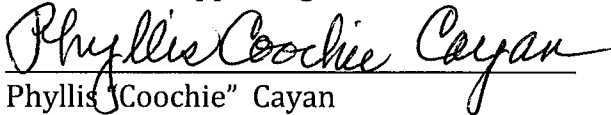
- [https://www.youtube.com/watch?v=G9HMKF\\_sFV8&t=7s](https://www.youtube.com/watch?v=G9HMKF_sFV8&t=7s)

- <https://www.youtube.com/watch?v=7Le7rLbkFe4>
- <https://www.cnet.com/features/the-misunderstood-funeral-tech-thats-illegal-in-30-states/>
- <https://newrepublic.com/article/148997/fight-right-cremated-water-rise-alkaline-hydrolysis-america>

Conclusion:

For many generations, Hawaiians have wanted a better, more cultural process for treatment of our Iwi Kupuna. We now have an option that not only meets our needs but can and probably will be needed in the future to protect Hawaii's residents from global pandemics which cannot be eradicated from the bodies of those who have died without further risk of contamination.

Mahalo for Supporting this Bill,

  
Phyllis "Coochie" Cayan

Credentials are to experience in Hawaiian culture and burial practices, and not as a spokesperson for the Hawaiian Civic Club of Honolulu, a board member of the Kupuna Hui - Ka Lei Papahi O Kekuhihewa. as the former first chairperson/member for 13 years of the O'ahu Island Burials Council, and a former SHPD History & Culture Branch Chief.

## TESTIMONY IN SUPPORT OF HB680 & SB982

Committee on Judiciary & Hawaiian Affairs  
Honorable Chair Mark Nakashima & Honorable Vice Chair Scot Matayoshi

Steven Labrash  
Director Willed Body Program  
University of Hawaii  
808-692-1441 (work)

My name is Steven Labrash and I am the Director of the University of Hawaii's Willed Body Program, John A. Burns School of Medicine, a position I have held since 2004. I'm a graduate of Cypress Mortuary College, a funeral director and licensed embalmer for 25+ years and I strongly support the Bill for the 4 reasons listed below.

**Background:** Willed Body Programs are governed under the Anatomical Gift Act. They allow people to donate their bodies after death, to be used for purposes of research and education. Our Willed Body Program is a self-enrolled program, which means 90% of our silent teachers requested and filled out their own donor forms. By filling out the donor forms themselves, there is no question as to if they wanted to be silent teachers.

Currently we have over 4,000 people in Hawaii registered to come teach with us after they die. Pre-covid, we received approximately 150-180 donated bodies per year. In 2019, we provided mentors (another name for donors) to teach gross anatomy courses at JABSOM to not only our medical students but also graduate students from Manoa. Our donors also taught advanced surgical training to over 600 medical doctors from Hawaii, USA and international. We also offer "Anatomical Reviews" to over 600 local high school students in our anatomy lab as a community service. During these reviews the students are able to handle real human organs to round out their understanding of human anatomy. We've had to temporarily close our Willed Body Program due to Covid-19 but we hope to open it up again when we are allowed to teach cadaver based classes. We honor our silent teachers in an annual Willed Body Memorial service each year and in 2020, this meant holding the service online: <https://jabsom.hawaii.edu/donors/willedbody/> (from this link you can see our donor forms, an explanation of Body donation as well as links to the last few memorial services)

#1 As the Director I am constantly looking for technologies that will have a positive impact on our medical students, the surgeons we provide advanced training for as well as the incredible donors of our willed body program. I have been aware of Alkaline Hydrolysis for over 20 years and I have always been impressed with the clean environmental process. The possibility of having an alkaline hydrolysis option for human disposition is something that can benefit our program both ethically and financially. From an ethical perspective, it will allow us to house our donors from the time they are received after death, until the time we are able to return the

cremains to the family. Financially we would save money by offering disposition directly for our silent teachers (donors).

#2 This technology is not new to Hawaii, we are already successfully using it at the university for disposition of research animals. It was put into place at the time we built the medical school and it has been successfully operating for over a decade. The unit uses water, alkaline chemicals, heat and pressure to greatly speed up the process of natural decomposition. The process leaves bone fragments and a neutralized liquid effluent that is tested for safety before being released with other wastewater.

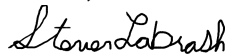
#3 I was saddened to see a large funeral corporation stand in opposition to this environmentally friendly technology. There is no more environmentally friendly technology available today than Alkaline Hydrolysis for human disposition. The corporations' position is reminiscent of the opposition the funeral industry had when the first public crematories were brought into existence over 100 years ago. When I was studying the history of funeral service, it was apparent that the opposition from the funeral industry to cremation was based on finances and not what was best for the community. They routinely vilified the technology, playing on the fears of the families and church to successfully hold off its wide acceptance for several decades. Decision makers then didn't have the benefit of technology that we do today, where we all have access to information.

<https://www.cremationassociation.org/page/alkalinehydrolysis>

#4 Covid-19 has been difficult for everyone but one of the silver linings is that as a society, we are thinking more about future pandemic issues. Alkaline Hydrolysis had its genesis due to Mad Cow Disease in the early 1990's. Over 4 million cows were killed in England to try and stop the spread of the disease and this caused the governments to look for a safer option for disposal for the slaughtered cows. Bovine spongiform encephalopathy (BSE) is a variant of Creutzfeldt-Jakob disease, a human prion disease. There was the potential for the prions to be released if the soil where the cows were buried was disturbed. Prions and spores can stay viable in soil for years making its eradication difficult.

I sincerely hope you pass this measure. Passage of this Bill will not only give the Hawaiian consumer a greener and less expensive option than the ones currently available. It will also provide Hawaii with a technology that could be of critical importance in the event of future pandemics.

Aloha,



Steven Labrash

Director Willed Body Program

University of Hawaii

808-692-1441 (work)

Carmen Hulu Lindsey  
52 Alokele Place  
Makawao, HI 96768

Testimony in Support of Hawaiian Style Burials & Alkaline Hydrolysis

Committee on Hawaiian Affairs  
Honorable Chair Maile Shimabukuro & Honorable Vice Chair Jarrett Keohokalole  
Committee on Health

Honorable Chair Jarrett Keohokalole & Honorable Vice Chair Rosalyn Baker

Aloha Honorable Chair Maile Shimabukuro of Hawaiian Affairs, Honorable Chair  
Jarrett Keohokalole of Health & Committee Members,

I am Carmen Hulu Lindsey.

I am a Native Hawaiian who lives on Maui,

I have been an OHA Trustee since January 2012 and am the current chair of the OHA Board of Trustees. I am also a long-time member of the 'Ahahui Ka'ahumanu and an active member of the Central Maui Hawaiian Civic Club. I was previously the properties administrator for Maui Land & Pineapple Co. as well as a former administrator for the County of Maui's Land Use and Codes Division. I in my younger years was a staff aid to governor John Burns.

I strongly support this legislation because it resolves a long-standing problem many Hawaiians face when a loved one dies.

For many years Hawaiians have sought a way to bury our family members that was cultural appropriate, affordable and clean. In 2012, the Hawaiian Civic Clubs, including the Central Maui Hawaiian Civic Club, moved to have the State facilitate "Hawaiian Style Burials" but our effort failed and the Hawaiian style burials have not become a reality because the traditional Imu method used by our ancestors is no longer feasible and the funeral industry in Hawaii has not wanted to accommodate our cultural needs for the technology to facilitate cultural burial practices for Hawaiian people.

Funeral Services & Companies in Hawaii have always offered flame cremation and whole body burial services; but to this day, there is no funeral service in Hawaii that can return to families the clean sterile long bones of their deceased and clean sterile water for the sea.

Now there is technology known as Aquamation or Green Cremation. This technology is available in twenty States of the Union; however, it is not available in Hawaii because no one in our Statewide Industry has wanted to invest in this clean safe technology. For our Hawaiian consumers this method is much more affordable. Alkaline Hydrolysis (or AH) is a technology that can make 'Hawaiian style Burials' feasible because it results in the complete cleaning of human bones and their sterilization. The sterile water-based solution that remains can be safely treated as effluent or returned to the Sea.

Alkaline Hydrolysis is also a critical component of scientific research into contagious diseases (human & animal) and is used globally by laboratories conducting research into pandemics for this reason. I believe that this technology can protect Hawaii from the spread of contagion in the event that Hawaii has another COVID-like problem in the future with a virus or other fatal epidemic.

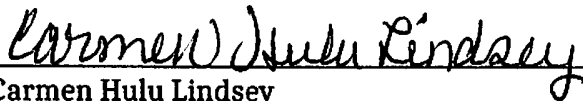
There is significant data on the Internet that reviews the use & development of AH technology, as well as data from research conducted globally on Alkaline Hydrolysis.

The World Health Organization now recommends a combination of extreme alkali and heat treatment as the only method known to be completely effective for destroying prions, the protein-based agents responsible for transmissible spongiform encephalopathies such as mad cow disease.

If another pandemic comes to Hawaii what will we do and how will we control contaminants that might be transmitted into the soil or released into the air by Cremation &/or the burial of contaminate human bodies?

For many generations, Hawaiians have wanted a better, more cultural process for treatment of our Iwi Kupuna. We now have an option that not only meets our needs but also can and probably will be needed in the future to protect Hawaii's residents from global pandemics that cannot be eradicated from the bodies of those who have died without further risk of contamination to the environment and our people.

Mahalo for supporting this Bill for Hawaiians & the protection of all of Hawaii



Carmen Hulu Lindsey  
Member of the Central Maui Hawaiian Civic Club,  
OHA Trustee for Maui Island  
Member, Ahahui Kaahumanu

# Ken Ordenstein Funerals

“Grief shared is grief diminished” Rabbi Earl Grollman

## **Testimony in Support of HB680 & SB982 Alkaline Hydrolysis Technology also known as Water Cremation, Bio Cremation, Aqua cremation and various other names**

Committee on Hawaiian Affairs

Honorable Chair Maile Shimabukuro & Honorable Vice Chair Jarrett Keohokalole

Committee on Health

Honorable Chair Jarrett Keohokalole & Honorable Vice Chair Rosalyn Baker

Aloha Honorable Chair Maile Shimabukuro of Hawaiian Affairs, Honorable Chair Jarrett Keohokalole of Health & Committee Members,

My name is Ken Ordenstein. My family, the Ordenstein's, have been in funeral service in Hawaii for 160 years. I represent our families sixth generation of service, my daughter and granddaughter, also working in the profession, are generations seven and eight.

I was president of Ordenstein's Hawaiian Memorial Park Mortuary Corporation, Williams Funeral Service, Windward Crematory, and the Center for Pre-arranged Funeral Planning among other positions involving Valley of the Temples Memorial Park and Mortuary, Maui's Nakamura Mortuary and Crematory and Maui Memorial Park, and Homelani and Kona Memorial Park on the Big Island. I served as president of the Hawaii Funeral Directors' Association and sat on the Policy Board of the National Funeral Directors' Association.

In June of 2015 I had the privilege of witnessing Governor David Ige sign a Bill for an Act to amend the penal code to support the preparation and burial of a corpse consistent with traditional Hawaiian cultural customs *and practices*.

“This measure makes it very clear that the most sacred traditions are allowed to be exercised by our Native Hawaiian community,” the Governor said at the signing ceremony that day in his office. “It needs to be crystal clear that our laws make it OK for anyone wanting to exercise traditional burial practices to do so.” The question then becomes how do we do this?

I support the introduction of Alkaline Hydrolysis Technology, because it answers the question of how we do this. This technology gives us the means to fulfill the promise of the bill the governor signed over five years ago. I call it water cremation.

In cremation by fire, a body is placed in a special chamber. Heat, air, and fuel, usually diesel or natural gas are applied until combustions occurs. The body is converted to heat and light energy, carbon gasses and solids. Heat and carbon gases are expelled through the crematory stack and the carbon solids the bones, are left in the chamber. The bones are brittle and break apart easily as they are swept from the cremation chamber. These bones and bone fragments are put into a processor that makes the bones unrecognizable as human remains. That is what we call ashes or cremated remains.

Like cremation by fire, with water cremation, a body is placed in a special chamber. This one made of steel. Heat, water, pressure (the container is sealed) and a Basic solution like lye fill the chamber. In a few hours, the body is converted to what it mostly is, water, and carbon solids, the bones. In this process the bones are not brittle. For traditional practices, the long bones can be retrieved whole for wrapping and ceremony, or the bones can be put into a processor like cremation by fire.



An article in Reuters about the bill Governor Ige signed into law in 2015 calls the custom of retrieving the bones, wrapping, and burying them a “clean burial”. Alkaline Hydrolysis provides an environmentally cleaner process.

The carbon footprint of the technology is smaller using about one twelfth to one eighth the energy of cremation by fire with none of the carbon and heat emissions. Water use is relatively small, and the water left over from this process can be sent down the drain into our current wastewater system. In this context it can be considered a clean and green technology.

In summary, this process answers the question arising from the bill Governor Ige signed over five years ago. Alkaline Hydrolysis, what I call, water cremation, gives us the means to accomplish this. It answers the question. In addition, it provides a clean, and green choice to care for our dead whether Hawaiian or not.

Mahalo Nui for your kind attention.

Respectfully,

A handwritten signature in black ink, appearing to read 'Ken Ordenstein', with a long, sweeping horizontal line extending to the right.

Kenneth W. Ordenstein

Testimony of Paula Aila in SUPPORT of HB680 & SB982 Hawaiian Style Burials &  
Alkaline Hydrolysis Technology

Committee on Hawaiian Affairs  
Honorable Chair Maile Shimabukuro & Honorable Vice Chair Jarrett Keohokalole  
Committee on Health  
Honorable Chair Jarrett Keohokalole & Honorable Vice Chair Rosalyn Baker

Aloha Aloha Honorable Chair Maile Shimabukuro of Hawaiian Affairs, Honorable Chair Jarrett Keohokalole of Health & Committee Members,

I am Paula Aila, a Native Hawaiian raised in the Waimanalo homestead community. I am a graduate of St. Andrew's Priory and received a BA-Communications Degree from the University of Hawaii, Manoa.

In general, I am an advocate for choices in life including end of life options. After much research about the Alkaline Hydrolysis decomposition burial method, it appears this offers an alternative to end of life burial options.

The Alkaline Hydrolysis concept dates to 1888 in Middlesex, England with the patent of the first alkaline hydrolysis machine by Amos Herbert Hobson and was used to dispose of animal carcasses. Overtime this method has progressed to include humans.

“The process is straightforward. Bodies are placed in a machine containing a chemical mixture of water and alkali. The mixture is then heated and cycled. Over the course of hours, the body is accelerated through its natural decomposition process, resulting in a residual liquid made up of amino acids, peptides, salt, soap and bones—the last of which is broken down into white ash.” (Panecasio, 2020)

The Alkaline Hydrolysis process, as described, feels less intrusive and calming for me personally due to the use of water vs. the more accepted flame-based process we are accustomed to. It also provides me with another choice to plan for my burial. These are just a few of the reasons that I strongly support passage of this measure.

Mahalo,



Paula Aila



## **E. Pohai Ryan**

150 Hamakua Drive PMB#824

Kailua, Hawaii 96734

[pohaikaua@gmail.com](mailto:pohaikaua@gmail.com) 808-230-3654

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Testimony in **SUPPORT OF HB680 & SB982**  
**Committee of Hawaiian Affairs**  
**Committee of Health**

Aloha Honorable Chair Maile Shimabukuro of Hawaiian Affairs, Honorable Chair Jarrett Keohokalole of Health & Committee Members,

I am submitting this testimony in SUPPORT of Alkaline Hydrolysis, a technology that can & should be available to Hawaii's consumers, including Hawaiians, who want a clean, modern and culturally appropriate alternative to Cremation or Full body burials.

I am Pohai Ryan. I was born & raised n Hawaii on Molokai. I am a 1980 graduate of Kamehameha Schools and attended and received a degree in political science from Whittier College. I have served as a State of Hawaii Senator from Kailua Hawai'i . For years I have been a member of the Hawaiian Civic Clubs, and was the President of the King Kamehameha Civic Club.

In 2012 the Hawaiian Civic Clubs took action to support the right of Hawaiian to engage in 'Hawaiian Style Burial' practices that were not "recognized" in the State of Hawaii. In Traditional times, Hawaiians utilized a process that steamed the flesh tissue & sinews from the body of the deceased, removed the clean long bones and put the remaining fluid and solid material into the Sea. Long bones were returned to the family (ohana) to be secreted away on land. In the case of the Alii & high bloods, , the bones were often taken to sacred burial caves, whose exact location was unknown to others. Such caves are known to exist on the summits of Mountains, including Maunakea. There is significant data on Hawaiian historic burial practices and the treatment of human remains including the works of ES. Craighill Handy, & Mary Kawena Pukui, see he Polunesian Family System in Ka'u, p. 151 and Samuel Kamakau, see Ka Poe Kahiko, The People of Old, p.38.

As a result of three years of effort, the State Legislature passed an Amendment to HRS Sec 171-1108 in 2015. The new language stated ..." (2) The preparation of a corpse for burial or cremation in a manner consistent with traditional Hawaiian cultural customs and practices shall not be a violation of this section (3) The burial or cremation of a corpse prepared consistent with traditional Hawaiian cultural customs and practices shall not be a violation of this section." This outcome made clear that traditional Hawaiian burial practices could not be considered a criminal misdemeanor in Hawaii, but it did not facilitate Hawaiian Style Burials which require a process steam clean the ones and reduce remains to water for the Sea.

Today, we do have a choice for a traditional burial practices, through the use and application of Alkaline Hydrolysis, also known as Aquamation. This process uses steam to thoroughly clean human bones and also results in clean & sterile water which can be released into the Sea. This process has been legally approved in 20 States and is currently being utilized by laboratories worldwide who are researching fatal diseases and in need of technology to protect the public and medical researchers from contamination.

For many generations, our people, Kanaka Maoli, have been prevented from engaging in our cultural and traditional burial practices because of State laws have prevented us from steaming our dead in a burial who are preparing for the possibility imu by the sea, and retrieving the cleaned long bones for burial on the Aina (land). All these years, funeral processes licensed in Hawaii only provided for Asian & Christian burial processes. Its time for a change, its time for Hawaii to have the benefit of technology that serves not only Hawaiian cultural needs but those of our public, medical researchers & those who are preparing for the possibility of another global pandemic in Hawaii.

Mahalo for supporting thus Bill,

**Pohai Ryan**

Pohai Ryan

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Dr. Alin "Pono" Ledford. M.D., Big Island Family Medicine Inc

607 Ponahawai Street, Hilo Hawaii , 96720  
January 17, 2021

Committee of Hawaiian Affairs  
Committee of Health

Aloha Honorable Chair Maile Shimabukuro of Hawaiian Affairs, Honorable Chair Jarrett Keohokalole of Health & Committee Members,

My name is Alin Vaun Pono Ledford, I am a native Hawaiian physician born and raised on the windward side of Oahu. Graduate of Castle High school in Kanehoe, BYU-Hawaii in Laie and the John A. Bruns School of Medicine at Manoa, June 2004. Currently practicing medicine in Hilo, Hawaii.

My family, Ida K. Woosley has been in the funeral business for over 40 years here in Hawaii.

I strongly support this Bill because it will give Hawaiian consumers a culturally appropriate alternative to funeral services for their loved ones & family which is more affordable, and because it will bring to Hawaii a new technology that will be of critical importance to our State if when another global pandemic arises.

- I. A new technology that addresses Hawaiian cultural needs and Hawaii's need for protection from global pandemics

Alkaline Hydrolysis (AH) was a concept that was brought up over 30 years ago as how it would relate to native Hawaiian burial, because it causes little destruction of the bones. AH has been used in Hawaii for many years for pet cremations in veterinarian clinics. Alkaline Hydrolysis is a natural process in which body decomposes. it speeds up this natural process by using heat, water, alkaline reagent, increased pressure and gentle agitation. The process occurs by placing the body in a pressure vessel with potassium hydroxide (KHO) and sealed. Water is then pumped in and heat increased to 302 degrees F. and the pressure increased. An agitator gently circulates the water and KHO that effectively breaks down the remains into a nutrient rich fluid containing amino acids, peptides, sugars, salts, porous white bones made of calcium phosphate. The resulting fluid is completely sterile, destroying all pathogens including bacteria, viruses, and prions, with a pH is 11, the same pH as milk of magnesia. The fluid can them safely be disposed of via the drain.

For Hawaiians, this means that our loved one's bones can then be given to back to us native Hawaiians so that we can care for them in our traditional way. Others, can have their loved one's bones turned into ash and given back to them in the same manner as they do in flame-based cremation. The nutrient dense disease-free fluid could also be given back to the families to be used in their family garden as a fertilizer, completing the circle of life.

We can all agree that human waste in the form of feces, urine, blood, and other bodily fluids are contaminated with disease and toxins such as bacteria, viruses (including COVID-19 and its many mutated forms), medications etc. These deadly bio-hazards are simply flushed down the toilet or washed down the drain and sent to the wastewater treatment plants. In fact, the current practice in the morgue during an autopsy or at the mortuary during the embalming process, is to drain the blood and other bodily fluids directly down the drain.

None of these toxic disease-ridden human waste products are treated or regulated as they leave our toilets, hospitals or funeral homes as they make their way to our local wastewater treatment facilities where they are finally treated. As we all know living here in Hawaii, there are many sewage spills. These sewage spills pollute and destroy our rivers, beaches and reefs with human waste, feces, urine, blood, other bodily fluids, bacteria, viruses and other toxic chemicals. All of these are pollutants that we pour down the drain or flush down the toilet. Yet the fluid from the Alkaline Hydrolysis process is sterile, disease free and has no harmful chemicals.

Alkaline Hydrolysis is sometimes referred to as a green cremation because as it uses less than one fourth the energy as a flame-based cremation and the process does not release any harmful chemicals or toxins into the air. As Hawaii is the leader of safe green and renewable energy. AH is safer than flame-based cremation, and fits perfectly in Hawaii's goals of keeping our people and our lands safe.

## II. Why the Funeral Industry in Hawaii needs alternatives to flame based Cremation

Flame based cremation produces harmful toxins, pollutants and carcinogens, into the air including carbon monoxide, nitrogen oxide, sulfur oxide, hydrogen chloride, hydrogen fluoride and mercury. The mercury that is released into the air and settles into soil and waterways in the area surrounding the crematorium. When humans and animals come in contact with the contaminated soil and water it is absorbed into our bodies and stored in the adipose tissue. Other compounds such as acetones, benzenes and furans are emitted and react with hydrogen chloride and hydrogen fluoride forming polychlorinated dibenzodioxins and polychlorinated dibenzofurans, these carcinogens. These pollutants and carcinogens that are aerosolized from the crematorium exhaust into the air can cause short- and long-term health problems. Mercury emissions alone create exposure risks that can have devastating effects on body systems. It can also have detrimental effects on an unborn child. It can also cause cancers, decrease our immune system etc. Alkaline Hydrolysis does NOT do these things.

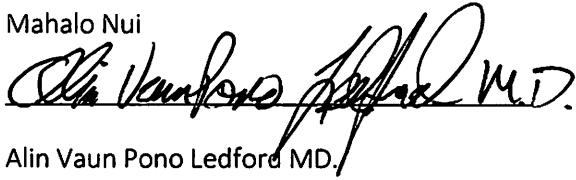
Although, most modern crematoriums have filtering systems in place to minimize emissions, regulations do not exist for the emissions and toxic pollutants that are released into the environment. As with sewage spills, these filtering systems also fail, releasing even more of the toxic pollutants in to our environment. In the event of an AH system failures, the waste is contained. The approximately 300 gallons is contained to sealed, self-contained vessels in a single room. Clean-up is simple and contained to the unit and room. There are no risks to the air or environment with an AH system failure. So, there is no risk of toxins being released into the air or environment by aerosolization, leakage or spillage

### Conclusion:

As our beautiful Hawaii continues to grow in population, we have less and less clean spaces and limited resources. There are more and more pollutants and toxins from many different industries due to overcrowding. More people, more waste. Our current way of disposing of waste will eventually destroy our beautiful Hawaii. Alkaline Hydrolysis is ideal for Hawaii. It is a green form of taking care of our loved ones who have passed. It has no harmful effects on our environment. It uses far fewer fossil fuels and energy, leaving a significantly smaller carbon foot print. Most importantly, it satisfies Native Hawaii burial customs and traditions.

We need a better way, a safer way, a more culturally sensitive way, a greener way to save our Hawaii. Alkaline Hydrolysis is the way. I have listed below several references for your use & information.

Mahalo Nui



Alin Vaun Pono Ledford MD.

Big Island Family Medicine Inc.

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**TESTIMONY OF: HINALEIMOANA K.K. WONG-KALU  
IN SUPPORT OF  
HAWAIIAN STYLE BURIALS &  
ALKALINE HYDROLYSIS TECHNOLOGY**

Aloha esteemed Legislators of Hawai'i,

My name is Hinaleimoana K.K. Wong-Kalu, better known in the Hawaiian community as Kumu Hina.

My personal and professional experience empower and embolden me to speak on a range of issues to include Hawaiian language, culture and philosophy; Hawaiian Education and LGBTQI oriented topics as is consistent with cultural grounding.

My journey is as follows:

- Kamehameha Schools Kapalama Class of 1990 graduate
- UH Manoa Center for Hawaiian Studies 1996 graduate
- UH Manoa College of Education 2004 graduate
- Native speaker level fluency in Hawaiian language and in descending order of fluency:
  - Tongan
  - Samoan
  - Tahitian

My community has held regard for me as a Kumu Hula, Hawaiian practitioner, Chairperson for the O'ahu Island Burial Council, an advocate for environmental and human rights issues impacting Hawaii, and Hawaiian and other indigenous peoples of the Pacific Region and globally.

For many years Hawaiians have tried to facilitate the burials of their ohana (family) in a manner that is culturally appropriate. The Hawaiian Civic Clubs initiated an



effort in 2012 and in 2015, but the outcome was not what was targeted nor hoped for.

In traditional times, the bodies of those who had passed, including the Ali'i, were set into an Imu (underground earth oven) so that the flesh and tissue could be stripped from the long bones and secreted away to a private place on land, and the remaining water based residue, returned to the sea. The process is described by Handy & Pukui in the following manner....

*"A relative tended the corps, removing the decaying flesh and organs by hand, to clean completely (ho'okele) the bones. This was a labor of love, for a devoted relative. The flesh refuse (pela) was thrown into the sea ..... The cleaned bones were Made into a lite compact bundle, tied with sennit cords, and borne to a place of concealment. It was carried on the back of a Kahu (guardian) who went along in the night so that no one would know where they were placed. .... for the ali'I, it was a cave that was known only to his kahu. But generally, the bones were taken to a place Identified with the aumakua of the family, because the uhane is with the aumakua."*

See The Polynesian Family System in Ka'u, Hawaii Handy & Pukui, (Hawaii Mutual Publishing, 1998 at p. 151.

Hawaiians have not been able to engage in this practice for generations, but now with the advent of new & clean technology, we can once again follow our traditions and return our iwi kupuna (bones of the ancestor) to the aina in a culturally appropriate way that is clean, sterile and safe.

What is most interesting and beneficial about this technology, (referred to as Alkaline Hydrolysis, ( also known as Green Cremation, Aquamation) is that it has many potential benefits for our State and others who are not Hawaiian because it has the ability to thoroughly sterilize bodily remains. Consequently, the science research labs throughout the US & globally, researching pathogens & and other dangerous and contagious diseases, can be assured that the byproducts & waste from their labs are sterile & safe. There is significant data on this available on the Internet, including data from UCLA and Mayo Clinic.

I strongly urge passage of this measure. It resolves a long standing problem for Hawaii's' Native people and increases our States capacity to address evolving health & safety threats that are likely to continue because of global travel.

Mahalo for your consideration. I place my faith and trust in your decision making.  
Aloha



Kumu Hinaleimoana K.K. Wong-Kalu (808) 225-4123



**Mililani B. Trask**  
[mililani.trask@icllchawaii.com](mailto:mililani.trask@icllchawaii.com)  
**P.O. Box 6377, Hilo, HI 96720**



Testimony in SUPPORT of HB680 HD1 & SB982  
Committee of Hawaiian Affairs  
Committee of Health

Aloha Honorable Chair Maile Shimabukuro of Hawaiian Affairs, Honorable Chair Jarrett Keohokalole of Health & Committee Members,

I am Mililani B. Trask, a Native Hawaiian attorney and creator & owner of the Native to Native Business Model designed to help native businesses create services designed to meet the needs of indigenous peoples they serve by ensuring that there is a tangible benefit sharing aspect to their business undertakings which inure to the Native consumer.

**CULTURAL PRIORITIES:**

I strongly support this Bill & urge its passage because it addresses cultural needs of our Hawaiian Community for ‘Hawaiian Style’ Burial practices that heretofore were unavailable to the native community in Hawaii.

In traditional times, when people passed, their remains were taken to the sea to be steamed in a large imu (earth oven) until the flesh could be easily separated from the sterilized long bones and removed for interment on land and the rest of the remains and bodily waters, returned to the sea. [ See:

**These cultural practices ceased over 150 years ago and since that time Hawaiians have had only 2 options for burial, a full body burial ( preferred by Christians) and flame cremation (preferred by Asians Buddhists). Neither of these options results in the outcome Hawaiians need, partial flame cremation DOES NOT produce sterile clean bones but bones, which smell, and have sinew, tissue and flesh attached. Such remains cannot be placed in a land crypt or burial cave because they are neither sterile nor clean and attract rodents and insects.**

Today, there is a technology that can bring about the desired outcome for Hawaiians, it is Alkaline Hydrolysis (AH). This technology has been in Hawaii for years, and has been used by veterinarians & by the University of Hawaii research lab at Manoa. This technology is in active use & legalized in about 21 States in the US and is also available throughout the world primarily because it is “Sterile, Clean, & Green”. *Flame cremation, discharges toxic elements into the air, thus is why Hawaii requires a “filter” be installed & used by Hawaii funeral businesses using flame*

*crematorium. AH technology has no air-born discharge, hence there is no need for regulatory testing.*

1.

### **Alkaline Hydrolysis (AH) Facts:**

There are many reasons why AH technology is considered Sterile, Cleaner & Greener than flame cremation:

#### **1. A green alternative to cremation**

Green cremation is a much more eco-friendly process. Compared to flame cremation, alkaline hydrolysis offers:

- More than 75% reduction of carbon footprint
- Uses 1/8 the amount of energy of flame-based cremation
- Pacemakers and some other medical devices do not need to be removed prior to the process as with flame-based cremation
- Mercury from dental amalgam is contained and recycled, not vaporized
- Preserves 20+% more bone fragments than flame cremation

[ See: ALKALINE HYDROLYSIS: WATER CREMATION, **Funeral Consumers Alliance of Minnesota**, <https://fcaofmn.org/index.html> see also: **How Alkaline Hydrolysis Works**, by [Chris Raymond](#), March 12, 2020, **Very Well Health.com**

#### **2. Other applications& benefits to Hawaii:**

##### **a. AH technology saves land and lowers cost to consumers:**

AH technology results in two byproducts: sterile sand & long bones (if not pulverized into sand) and sterile water. There is no need for families of the deceased to purchase large funeral plots or crypts & there is no need for families to purchase caskets, casket liners and other expensive accessories that are costly and unnecessary.

**b. AH technology will protect Hawaii in the future from pandemics that can be spread by air, water & sea transmission and ground contamination.**

#### **3. Don't be fooled by Hawaii's Funeral Industry Monopoly Misrepresentations:**

In 2020 an effort was made by the Willed Body Program at the UH JABSOM to bring AH technology to Hawaii for everyone. Sadly it was stopped by misrepresentations made to the Legislature by the SCI monopoly, a Texas group (SCI) that acquired many of Hawaii's 'local' funeral businesses in 2003. SCI's representatives raised fears about the lack of regulation of the potentially dangerous technology, and of the huge cost ramifications They even had several of their companies on Hawaii submit testimony (all identical) against the Measure . They killed it last year, but Hawaiians are back because we believe the time has come for Hawaii and Hawaiians to benefit Culturally & Environmentally from AH technology.

PLEASE PASS THIS BILL, Mahalo

A handwritten signature in black ink, appearing to read "Mililani B. Trask", with a long horizontal flourish extending to the right.

Mililani B. Trask

2.



# ALOHA MORTUARY

CREMATION & FUNERAL SERVICES

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Phone: (808) 470-3434

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Testimony in Support of HB680 and SB982  
Committee of Hawaiian Affairs  
Committee of Health

Aloha Honorable Chair Maile Shimabukuro of Hawaiian Affairs, Honorable Chair Jarrett Keohokalole of Health & Committee Members,

I am honored to submit this testimony to you for your consideration to pass into law legislative bill #HB680 & #SB982. My name is Kawehionapua Correa, President of Aloha Mortuary, located in Honolulu, Hawaii. I was born and raised in Waimea, Hawaii Island and earned a Bachelors of Sciences degree in Chemistry with a focus in Genetics from Florida International University in 2013 in Miami, Florida.

Aloha Mortuary is a majority-native Hawaiian owned funeral business dedicated to serving the Hawaiian People, and the people of Hawaii. Our company motto is “serving with Aloha & Compassion”, we use the Native to Native business model. We are committed to two things: 1) providing our Hawaiian community with a culturally appropriate method of burial, and 2) transforming Hawaii’s death care industry with more affordable and environmentally responsible technology through the integration of modern innovation, technologies and practices. Our Team Advisors, Ken Ordenstein and Dr. Alin ‘Pono’ Ledford (Woolsey) are members of the Hawaiian families who have been in the Funeral Services Industry for 150 years. We strongly support this Measure because it provides our native people and all consumers in Hawaii with an option for burial that is cultural, clean and environmentallty reponsible, and because it provides our State with new opportunities for research and protection from future pandemics.

I. Integrating Culture and Funeral Services in Hawaii: The Time has finally come!

In traditional times, Native Hawaiian burial practices were undertaken by the steaming of the deceased body in an imu until the flesh could be easily removed from the bones Which werethereafter wrapped in Kapa and returned to the ohana (family). In the case of Alii, the long bones were secreted away to burial caves at sacred locations and the water returned to the sea. [See: Notes on Hawaiian Burial Customs, Umu & Pulo Hulohu, David Malo, Chapters 27 & 29, 1951 Translation].

For over a century, Hawaiians have had no culturally appropriate way to bury their loved ones other than: 1) Christian Full Body Burial in a Casket in a plot of earth or 2) by Flame Cremation with ashes and bone fragments, in a Vase or Urn. The second option has always been favored by Hawaii’s Asian population.

**In 2012 the Hawaiian Civic Clubs Statewide, undertook an effort to facilitate Hawaiian Style Burial practices in the State Legislature.** While it gained much media attention [See Citation: Group wants to bring back Native Hawaiian burial traditions (2015, April 18) <https://phys.org/news/2015-04-group-native-hawaiian-burial-traditions.html> ], **it did not result in the hoped for outcome, a Hawaiian Cultural Funeral Service option that was affordable, sterile and adaptable to Hawaiian cultural needs.** In 2015 the State Legislature amended HRS "§711-1108 Abuse of a corpse to de-criminalize Hawaiian traditional cultural “handling” of a corpse to clarify that “*traditional Hawaiian cultural customs and practices*” was not a criminal misdemeanor. The 2015 amendment de-criminalized Hawaiian Burial practices but failed to facilitate Hawaiian Style Burials. What was missing was the technology to facilitate traditional practices, that technology, known as Alkaline Hydrolysis.

## II. Alkaline Hydrolysis (aka AH) – Clean, Green, Sterile, Energy Efficient and Affordable

Flame Cremation uses fire to burn the body leaving toxic emissions to be discharged into the air, and sand, bone and mercury and other byproducts by products.

Instead of flame, alkaline hydrolysis uses water and an alkali solution of potassium hydroxide (KOH) commonly found in household products, which when heated, dissolves the body, leaving behind bone fragments and a sterile liquid. Alkaline hydrolysis is the natural process a body undergoes after burial, which can take up to 25 years. Green cremation essentially accelerates this natural process to 2-3 hours in a very quiet, controlled environment.

The alkaline hydrolysis (AH) technology being introduced to Hawaii’s consumers in this Bill is not new. The patent was issued in the US in 1988 and medical schools and research companies utilize it as a preferred method of human burial. 20 States including California and Washington, now license AH technology, and a recent study by the Funeral and Memorial Information Council found that 64% of adults ages 40 and up said they would consider what’s called green funeral options up from 43% from the previous year.

### A. Energy Efficiency & Environmental Toxicity:

AH or Water cremation or Green Cremation is a much more eco-friendly process. Compared to fire cremation, alkaline hydrolysis offers:

- More than 75% reduction of carbon footprint
- Uses 1/8 the amount of energy of flame-based cremation
- Pacemakers and some other medical devices do not need to be removed prior to the process as with flame-based cremation
- Mercury from dental amalgam is contained and recycled, not vaporized
- Preserves 20+% more bone fragments than flame cremation

The old fire Cremation process uses fire, cremating one corpse requires two to three hours and more than 1,800 degrees of heat. That’s enough energy to release 573 lbs. of carbon dioxide into

the atmosphere. In many cases, dental compounds such as fillings also go up in smoke, sending mercury vapors into the air if the crematorium does not have a filter.

#### B. How AH technology works:

During AH, a body is placed in a steel chamber along with a mixture of water and potassium hydroxide. Air pressure inside the vessel is increased to about 145 pounds per square inch, and the temperature is raised to about 355F. After two to three hours, the corpse is reduced to sterile sand and water that can be returned to the (Hawaiian) family for internment by families or placed in an existing or new burial plot. Dental fillings & metal implants are separated out for safe disposal.

In order to accommodate Hawaiian Style burials, the AH procedure is halted in order to remove the sterilized long bones before they are rendered to sand & water. This allows for the sterile bones to be returned to the Hawaiian Ohana (family). This option is not available in flame cremation because when the flame process is halted, the bones have sinew, tissue and a smell that permeates them and attracts not only animals, including rodents, but insects.

#### C. Cost Effectiveness and Affordability:

##### (a) Cost for AH technology in Hawaii: **NO FISCAL IMPACT TO THE STATE**

The cost of AH technology for treatment of human remains averages \$400,000.00 per-unit. Packing, shipping, transportation & insurance of the unit to Hawaii is an additional \$50,000 + dollars. **Aloha will assume these costs as a business expense, there is no fiscal ramification to the State of Hawaii if this measure passes.**

##### (b) Cost to consumers:

When AH technology is used, there is no need or use for an expensive Casket for a body cost: \$2500 nor is there a need for a casket liner cost: \$500 or a plot of land for burial cost: \$7000. In some instances, there may be a need for an Urn or container to hold sterile water &/or sand remains, but Aloha will give our clients the choice of providing their own containers or utilizing containers provided by Aloha for a nominal price. Long bones will be returned in wood boxes provided by Aloha.

In addition, Aloha will be facilitating other options for Hawaiians including burial at sea by canoe, distribution of ashes at WahiPana, and propagation of Koa seedlings with sterile water in the Forests of Hawaii Island where they will be maintained for future generations.

These services & savings are not available in Hawaii's Funeral industry a present.

#### II. Alkaline Hydrolysis in Hawaii: Hawaii has used this technology for a long time.

**AH technology is not ‘new’ in Hawaii. It has been in our State for years & has been used by the private sector veterinarians as well as the State itself.**

For years, AH technology has been available to Veterinarians in the U.S. who not only offer medical treatment for pets but who help pet owners take care if their pets remains when they die. Many pet owners are attached to their pets and do not want to throw way their remains in the trash.

**The State of Hawaii itself has utilized AH technology for medical & vet related scientific research & testing for 15 years.** It is used by the AVS (Animal and Veterinary Services). AVS operates two vivaria on Oahu, one located in the Biomedical Sciences Building on the UH Mānoa campus and the other at the John A. Burns School of Medicine (JABSOM) campus in Kaka‘ako. AVS provides daily care of animals in the vivaria used for biomedical and neurosciences research, teaching, and testing.

The Office of the University Veterinarian (UV), organized under the Office of Research Compliance (ORC) Animal and Veterinary Services Program (AVS), has system-wide responsibilities for overseeing the health and well being and clinical care of vertebrate animals used by the University of Hawai‘i, as required by US federal law (PL 99-158, PL 89-544 and its amendments). As such, the AVS veterinarians do at least semi-annual scheduled visits to facilities where vertebrate animals are housed or used for research, teaching, or testing. In some cases the AVS veterinarians may provide veterinary care for animals used on specific protocols. The AVS veterinarians also provide guidance on the development and review of IACUC protocols, and have Program oversight responsibilities. AVS veterinarians help fulfill the federal mandate that personnel involved with care and use of vertebrate animals are adequately trained, and/or qualified in the basic principles of animal care and use to ensure quality research and animal well-being. As such, the Office of the UV provides education and documentation of demonstration of proficiencies for personnel using or caring for animals at UH.

[See [researchcompliance.hawaii.edu](http://researchcompliance.hawaii.edu)].

Their research follows strict safety protocols that can be viewed at [Biological Safety](#) to wit....

- “Ensure the protection and safety of university personnel and students, the general public, and Hawaii’s environment from exposure to potentially hazardous biomaterials and contagious or infectious biological agents (including select agents and toxins), microorganisms, and recombinant genetic materials.
- Administers the Institutional Biosafety Committee (IBC), which reviews registrations, determines approval, and assesses investigator adherence to laboratory and field research, testing, and instruction procedures that involve potentially hazardous biomaterials and contagious or infectious biological agents (including select agents and toxins), microorganisms, recombinant genetic materials, and emerging technologies which utilize or depend on biological materials.”

III. Quality Control: Regular testing to maintain State, County & Federal Standards:



Because Hawaii has not technically licensed the AH technology, there is a need to establish a mechanism in our State for ensuring that there is regular testing of the AH technology being used in Hawaii.

There are two cost effective options to consider:

1. Work with the State & the University of Hawaii AVS Program to use the same procedure for testing that is now in place. Aloha and other Hawaii companies would compensate the University program (or their contractor) for testing of effluent & discharge and agree that Results are shared with County & State Agencies ( State Dept. of Health etc.) or
2. Contract with an independent lab or medical research facility on the Continent for water samples to be sent to them for testing with results forwarded to appropriate State & County Agencies and the Companies using the technology in Hawaii.

These options are being used in other States by government and private sector companies to ensure that government standards for water & air discharge are met without the necessity of the State & County having to create & assume costs for hiring & training new employees, laboratories for testing and monitoring of applicable State health standards.

These options meet “Industry Standards”, ensure that there is independent & regular review & testing of discharge and guarantee that the results will provide not only to governmental bodies but to the Companies as well.

#### IV. Other potential applications for Hawaii from AH/R technology:

The State of Hawaii could benefit greatly from research into other applications of AH/R technology for Hawaii. These include: use of the technology for environmental clean up, agricultural applications including irrigation, propagation of livestock feed (duckweed) and use for composting.

Most importantly, AH technology can be of great significance for protection for our State in the event there is another pandemic that can be transmitted by air or the soil. If and when this occurs, AH technology would be critical in facilitating the sterilization & disposal of the human remains of victims who die of a contagious disease that may be spread by Cremation &/or full body burial. Alkaline hydrolysis is being used in the agricultural industry to sterilize animal carcasses that may pose a health hazard, because the process inactivates viruses, bacteria, and prions causing [transmissible spongiform encephalopathy](#). [ See: "Alkaline hydrolysis". [Managing Contaminated Animal and Plant Materials: Field Guide on Best Practices](#) (PDF). Texas A&M University. Retrieved 4 September 2017; Kaye, G; Weber, P; Evans, A; Venezia, R (May 1998). "Efficacy of Alkaline Hydrolysis as an Alternative Method for Treatment and Disposal of Infectious Animal Waste". *Contemp Top Lab Anim Sci.* **37** (3): 43–46. [PMID 12456159](#);

Hawaii will not meet the Sustainability goals that it has set for itself, in part because of the closure of the Dairy's on Kauai & Hawaii Islands. The reason for the closure was animal waste and effluent draining into streams & the ocean when heavy rains & flooding occur. AH technology can & should be applied to facilitate cleanup of these problems. There is also

significant data that verifies that the sterile water discharged in the AH process can be used for irrigation and propagation of agricultural crops. Hawaii has not yet begun research and testing in these areas, but passage of this legislation will facilitate this research.

The University of Hawaii Willard Body Program is also interested in utilizing this technology in their program. [See testimony of Steve Labrash, Director of the UH Willard Body Program.]

#### IV. How opposition from the Hawaii Funeral Industry Monopoly of Houston Texas Killed HB 1602 in the 2020 Legislative Session.

In 2020, a Bill on AH technology was introduced in the Hawaii Legislature. It was killed because of opposition by Hawaii's Funeral Industry Monopoly, also known as the SCI Hawaii group. Testimony in Opposition to the Alkaline Hydrolysis technology (House Bill 1602) came from Borthwick, Ballard, Normans and Hawaii Memorial Park. The testimony filed against the Bill was identical and limited to 1 paragraph that said the Bill should be deferred because 1) there was not enough information about this "new" technology, and 2) concerns about the impact on the environment and community. [See: Testimony on HB 1602 Re: Human Remains]. These testimonies are patently false. There is significant data available on AH technology easily accessible on the Internet and from other sources including the World Health Organization, Mayo Clinic and UCLA. Alkaline hydrolysis has also been adopted by the pet and animal industry.

What these companies did not tell the Legislature is that **they are not really Hawaii Companies**. The buy-out of Hawaii local owned funeral companies occurred 17 years ago. This became public in 2003 after the Advertiser published an article on the acquisition that said....

"Ballard, 46, and his wife, Laura, sold their two funeral homes in Kentucky and two others in Indiana and opened Ballard Family Mortuary in Kahului, Maui in 1996. Ballard wanted to expand and began talking to SCI Hawai'i, which owned seven Hawai'i funeral operations, including four Borthwick mortuaries.

SCI Hawai'i is an arm of Houston-based Service Corporation International, "which went through the process of determining which locations it wanted to keep ... and those that it wanted to spin off," ... "..." [See: State funeral homes changing ownership, Dan Nakaso, Advertiser, February 6, 2003].

Last Session the State Legislature killed a Bill that would have facilitated a Hawaiian Style Burial option for Hawaiians and brought into wider use a technology that has been in Hawaii for 15 years and is operated by the State of Hawaii through the University of Hawaii Animal and Veterinary Services division.

The Legislature should not be dissuaded from passing this Bill for our State, for Hawaiians and for Hawaii's future protection from contagious pathogens. There is significant data on AH technology from many sources. The State of Hawaii has used this technology for 15 years for medical research. It's time to allow its use for Hawaiians and Hawaii based local companies.



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C. Kawehi Correa  
President of Aloha Mortuary  
155 Kapalulu Place  
Honolulu, Hawaii 96819

Testimony in Support of HB 680 and SB982  
Committee of Judiciary & Hawaiian Affairs

Aloha Chair Mark Nakashima & Vice Chair Scot Matayoshi,

I am Piliialoha Lee Loy. I am a Native Hawaiian, a graduate of the Kamehameha Schools and a member of the Hawaiian Civic Club of Honolulu since the 1970s. I taught at Aliamanu Middle School for 46 years and served as a trustee of the Hawaii State Employees' Retirement System Board of 24 years.

In 2012 members of the Hawaiian Civic Clubs moved to have State facilitate "Hawaiian Style Burials. This legislation would allow for an alternative that will enable families to receive the clean sterile long bones in clean sterile water..

This process is used in 20 states of the Union and the John A. Burns School of Medicine Willing Body Program last session requested legislation for Aquamation. Passing this legislation will provide Hawaiians and hawaii's consumers a clean affordable technology that is culturally appropriate and environmentally responsible disposition option.

Mahalo for supporting this Bill.

Piliialoha E. Lee Loy