



## Q&A with Joe Wilson, CEO of Bio-Response Solutions, Inc. providing an Effluent Decontamination System for Pharmaceutical, University, Federal and State Government Bio-Containment Facilities and Alkaline Hydrolysis Cremation Equipment for the Pet and Human Funeral Industry



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**Interview conducted by:**  
**Lynn Fosse, Senior Editor**  
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**CEOCFO: Mr. Wilson, would you tell us about Bio-Response?**

**Mr. Wilson:** We have two major market areas. One is bio-hazardous waste water management systems for bio-containment facilities. These can be federal or state facilities, university facilities and pharmaceutical companies who are

making vaccines and they make viruses, so they must make sure they do not put all of that virus out into the sewer system after they are finished making their vaccines and we make systems that that goes through to make sure everything is dead and cleaned up before it goes out into the sewer system. Bio-containment facilities work with dangerous microbes in things like Ebola, tuberculosis or anthrax, to develop anecdotes or vaccines, to learn more about them and new diseases such as avian flu. Things like that are worked with in very tightly contained facilities called bio-containment facilities and anything coming out of the bio-containment facility must be sterilized. We cover two areas, we cover carcasses such as mice, rats, rabbits etcetera that might be used in the processes of an animal facility, or we also cover the liquids that come out. Wastewater and carcass disposal make up half of our business; we call this the scientific side of our business. The other side is Alkaline Hydrolysis Equipment for pets and for funeral industry and institutions. We build systems of different sizes for pets from 400 lb. capacity which is our most popular Alkaline Hydrolysis System; up to equipment of 2500 and 4000 lb. sizes. We do institutional systems for universities or pharma companies of different sizes up to 10,000 lbs. for Alkaline Hydrolysis to dispose of animal carcasses, and we do systems for institutions doing willed body, where you donate your body to medical research or training of medical students in surgery, then when they are finished those bodies can go through either a cremation process, be buried or go through alkaline hydrolysis. We make that kind of equipment and then we make systems for the funeral industry for individual bodies of family members who choose not to be buried and who choose not to be cremated by fire. They have a third option now which is new, which is water and we make the water system that uses alkaline hydrolysis.

**CEOCFO: Do most people really care about how they are cremated?**

**Mr. Wilson:** Yes, the living do. Cremation by fire is much more environmentally acceptable than burial. Burial is going to be a thing of the past because there are too many people and limited land. You can look at Japan of a perfect example of where we are headed. Japan is 99.97% cremation. They literally do not have a burial option in Japan. If they do it is a multi-hundred thousand dollar option. Now the US this year crossed the boundary of 50% cremation so 50% of those who perish are cremated rather than buried and in 20 years that will be 80% according to the National Funeral Directors Association and the Cremation Association of North America.

**CEOCFO: *What type of organizations turn to you?***

**Mr. Wilson:** The inventors of modern-day alkaline hydrolysis are Dr. Gordon Kay and Dr. Peter Weber, and they were both at Albany Medical College when they conceived of this idea that pathologic waste which is tissue of animals or people, could be disposed of other than burning it. That had never been considered as a possibility until they developed the idea that alkaline hydrolysis could be used to do it so they filed the first patents in the early 1990's. I was with a company called STERIS Corporation; I was the VP of Solid Waste Management Systems for STERIS out of Mentor, Ohio. I learned about this at a conference when I saw Dr. Kay speaking about it and I flipped because I had been involved in medical waste systems, non-burn technologies for almost twenty years at that time, since 1977, and never had even realized the possibility of anything but flame for disposal of tissue type materials. I found out about it and then I learned that it destroys cancer agents such as the cytotoxic agents used to treat cancer, chemotherapy drugs, and embalming fluids or formalin was destroyed in the process along with a complete disassembly of components that make up the human body which is 65% water, 20% protein, 10% fat and 5% mineral such as bones and teeth. That is what makes up the body of a mammal and we are mammals. They developed this process and it was in its infancy, so I wanted STERIS to buy the technology, but STERIS turned out to not be interested. Therefore, I left and the professors offered me the job to fund the company, fully develop the technology and turn it into a real company, as it was a virtual company at the time. I agreed to do that and we had a company called WR2, which developed the technology thoroughly. The problem with WR2 was that the market was not ready enough to support the company and the company ended up going bankrupt in 2006. That is when I started Bio-Response Solutions and started back into the waste water business that I had been doing and then evolved into alkaline hydrolysis. During that time in 2005, Mayo Clinic in Rochester Minnesota wanted a single body liquid process for cadavers and we developed that and realized that the funeral industry could someday see this as a green option because it uses 1/10th of the energy of a flame cremation, and the total carbon footprint is about 1/7<sup>th</sup> to 1/10<sup>th</sup> that of flame cremation. Flame cremation is environmentally two to three times better carbon footprint than burial. When you count for making the casket, making the vault, consuming the land and maintaining the land over years, flame cremation is a big step forward environmentally as compared to burial. Alkaline hydrolysis is a big step forward as compared to flame cremation.

**CEOCFO: *What is the business model?***

**Mr. Wilson:** We directly sell our products directly to the end-users. Now the scientific products, the process is we usually work through an architecture or engineering firm for the client or a building company. Ultimately after they are gone, there are two people standing, us and the end-users. On the funeral side and on the pet side we do not use agents. We do have some in specific areas like China, as we have an agent in China, because we do not speak Chinese and we are not accustomed to the business norms there, and we have a long-term relationship with an agent there that is almost like a family member to me. We have an agent in Singapore. With the rest of the world we are pretty much doing this direct. Cost is a big factor on our products and if you interject a middleman you price yourself out of the competition. We do have competitors and we are the value leaders right now because we do not have sales organizations or third-party representatives.

**CEOCFO: *How do you handle some of the challenges working with government organizations?***

**Mr. Wilson:** We do work with government organizations some, most of our clients are individuals. When we do work with the government, I have no problem with it. We do a lot of teaching at the National Institute of Health and symposiums around the world. We do a lot of lecturing and teaching about technology of alkaline hydrolysis and effluent decontamination. We gain many customers through the fact that we are teaching. They see that we know what we are talking about, they see what we have built for others and we get jobs. It is a niche marketing and reputation based sales; we do not really have sales people out selling our products. We do go to tradeshow such as the Funeral Directors National meetings two or three times a year. We go to a couple of scientific meetings a year. Otherwise we handle sales directly ourselves.

**CEOCFO: *How do you know what is right for a given customer?***

**Mr. Wilson:** To predetermine what a customer needs, is like telling somebody what they need before you know exactly what their requirement is. It is like prescribing medicine to a patient where you do not even know what is wrong with them. We have a questionnaire and from that we use our experience and give them two or three options. One of the things we do not get the advantage of in the front end is their budget so if we have a \$500 thousand solution and they have a \$200 thousand budget, a lot of time can be wasted. We usually have multiple options. There are many roads to Rome and multiple ways in the effluent decontamination side, to give them a solution, depending whether they want to go with a high-temperature solution or low-temperature or a chemical solution. Now flip over to the pet side or the funeral side. We have one unit called Pet-400 and it is very popular. Many people started business with that and it is affordable, and someone can make a good living from one machine. We have 65 of those in the field now operating every day. People

have started that part-time and then actually left their fulltime jobs and did if fulltime. It is a great sense of satisfaction for us to make a machine that someone can use to make a living. For the funeral home industry, we make one size machine and two types. We make a high and a low-temperature. One of them can process literally one body in a day, so they can do it overnight. The other one can do three to four a day. That would be for a busier funeral home or crematory. The need is the same all over the world as bodies only vary in size, so we have standard units for that. Therefore, there is not as much custom equipment needed. We need to know if the customer does 150 cremations a year or a lot more than that; then that tells us which machine they need. For the pet businesses we have several sizes, such as 400, 2,500 and 4,000 lb. units depending on the size of their operation. Most people are starting small or have their own vet practice and they want to be able to offer their families a cremation service where they maintain control of the animal and do it in a water method rather than a flame method. The reason it is so popular is with this type of technology you do not have to be there. You can start the system and go home, it will not burn your building down but with flame you must be there the whole time.

**CEOFO: *What is new in technology surrounding your services?***

**Mr. Wilson:** It is straightforward but there are technological changes in the components that we use. For example, the machines are controlled by a computer which is called a PLC (Programmable Logic Controller). The PLC's new features come out every couple of years. Sometimes it is a lower cost screen with higher resolution and it is better made with higher resolution. Just like your iPhone or Samsung, every year they introduce new models that are better. Better cameras, better resolution, waterproof. The latest technologies that we have incorporated into our equipment have been related to accessibility to the equipment so if a customer is having a problem with it we can go into their system from here and trouble-shoot for them. That has been a big thing that we have integrated into our equipment over the last couple of years. The other thing that happens in valves and things like that is that they get better, new materials and better designs that do not fail as often. We are always looking for something that never fails. We would like to sell a machine and never have a service call. We are always trying to make them better where we never have certain types of failure. We had some valves that were not holding up well and we replaced them with some that do hold up well. Some of those are new technologies.

**CEOFO: *Why is Bio Response still exciting for you?***

**Mr. Wilson:** I am 63 years old going on 13. I have never had so much fun in my life. We have been blessed with wonderful opportunities. Everything that we developed when I started this company eleven years ago was from scratch. I have my son as President, and my daughter as the Director of Science. We have been profitable from the first day I started. Using my experience in history in lessons learned to set this up we built our own plant four years ago, and watching my kids grow into the business, freeing me up to do a lot of things I wanted to do my whole life, just being successful and having a personal relationship with each customer. Having these kinds of conversations with each prospect, I may spend an hour on the phone with the initial phone call with somebody interested in our technology and then they become a customer and we get to know them. I do not ever want to quit.



**BIO-RESPONSE  
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