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Safe-Decon – Making the World a Safer Place with Their Air-Tight Containers for Hazardous Waste that Effectively Control and Eliminate Pathogens and Viruses



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“One it is all about safety, we can contain and control all the waste and viruses.” Bob Dudley

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CEOCFO: *Mr. Dudley, according to the Safe-Decon website, your mission is to "Ensure the Safety of Patients and Staff by Minimizing Exposure to Dangerous Viruses, Pathogens and Spores." How can you do that?*

Mr. Dudley: What Safe-Decon, our Bio Pro line of products and our process is about, is we can now take anything out of the room with an isolated patient let's say with COVID-19, in an air-tight container. You can take it down the hallway with limited exposure to staff and patients, anybody that is dealing with it including the person handling the waste, and you can even handle it without any PPE (Personal Protective Equipment). Once it is out of the room it is safe to handle.

You can then put it into an autoclave which is pretty much just a giant pressure cooker, and then in forty minutes you can remove it and throw it in the regular garbage or you can just reuse it. Things like linens, scrubs, and PPE, you can process through and we can get a 100% kill rate without exposing anybody from the point of infection.

CEOCFO: *What is it about the container that allows it to be effective?*

Mr. Dudley: It is a specially designed container that is air-tight with seals on it but it is also foot-operated. We can make the containers almost any size that fits anyone's needs. We currently have designs for a

34-gallon trash can for the larger items. When you put your foot on the pedal it opens up when it drops, it seals around the rim. When you are ready to move it, it locks down making it air-tight and helps to avoid accidental drops. We have these patented ports on the side that once they get into the autoclave and detect heat and steam, they open up and they allow the direct steam and heat to penetrate the contents of the container. When the cycle is over, or if there is an issue with the autoclave, they will seal it back up and go back to being airtight. If there is an incident that happens with the autoclave malfunctioning, these will automatically seal back up at the end of the cycle before the door is open. That is what makes us extraordinarily unique.

We also have a patented load probe. What the load probe does is we can insert it into the middle of the load, and it will remain sealed around it but the load probe will let you know what the internal temperature is of these units and that is the important part. The load probe controls the computer on the autoclave and then it allows you to achieve 250 degrees for the fifteen minutes that it takes to kill virtually almost every virus in store known to man and that is the difference. Not only are you safer but you are controlling the kill on these deadly pathogens that are contained in the units.

Our units also have an antimicrobial compound on them for everything that comes in contact with it. We have a 95% kill rate for any virus, spore, or anything that comes in contact with the container itself.

CEOCFO: Do people always know that an air-tight container can do the job?

Mr. Dudley: This is one of the biggest issues that I had seen in the industry and lead me towards my inventing the Safe-Decon products and process. If you seal bio-hazardous waste inside of container and put it inside of the autoclave, the contents will not have the direct steam/heat needed to decontaminate the contents, however if you open the container so that the steam/heat has access to the contents then you risk exposure to the technicians handling the contaminated material. If the container is airtight then there is no way of monitoring the contents to make sure that they have achieved the necessary 250F/121C for 15 minutes.

It wasn't until I got into the research institutions that there was a big problem with the way everybody was processing the waste, including the hospitals. Most of the waste goes in and they have no way of monitoring it. They run excessively long cycles for five hours. The CDC runs a nine-hour cycle. When you are working on these viruses and pathogens, you run them for a long time because you do not know if you are killing them.

The rule of thumb in this industry especially the research is 15 minutes or PSI (Pound-force Per Square Inch) of steam, which equates to 250 degrees Fahrenheit or 121 Celsius, kills almost every virus and spore out there. The problem is when you put stuff in, it is sealed up and then the autoclave cannot access the steam and heat directly to the waste and that is what I recognized. The industry has been looking the wrong way for close to fifty or sixty years. Everybody was trying to get the autoclave

to overcome the problems of double-sealed plastic bags and sealed containers because now you have to heat the outside of the unit to heat the air on the inside which is why they run long.

That is where I recognized that there needs to be a better way to contain, control, and eliminate these viruses and that is how I came up with the idea for the containers. It is very simple but it is extraordinarily effective.

CEOFCO: *Does it work with any autoclave; are there special requirements?*

Mr. Dudley: The only requirement is that you have an autoclave big enough to fit the units. We have a three-gallon unit, we have a thirteen-gallon unit and then we have a twenty-four-gallon unit right now. As long as the autoclave can fit it, it will work.

CEOFCO: *How careful does someone have to be when they are putting the objects in so that nothing leaks out?*

Mr. Dudley: The way that these isolation rooms work is they have a negative pressure room which means the air sucks into the room and cannot be pushed out. That is where these isolation rooms come from. When you are leaving the room, you will remove your protection gear at the door and then you will sanitize when you walk out. One of the issues with the garbage is that they come in grab a plastic bag and tie it off, then put it in a cart and haul it down the hallway. One of the dangers of that is that the bag can get poked and liquids can come out. The bag will sit on top of something else and it can come untied in some way, you can press it and now you have an aerosol effect, similar to a balloon as it starts spraying going down the hallway. Then you have your air conditioners picking up and spreading it to other rooms. You do not want to do that. If somebody is sick you have to pull the linens and everything else out of there.

Another problem hospitals have is having no way of washing it because it had COVID on it so they were piling up all their linens and taking it down the hallway. We can just put a container and they put all their linens and everything else, seal it, spray it, and take it down the hallway. They can run it in the autoclave decontaminate it and put it in the washing machine and reuse it. What happened during COVID is that hospitals had all of their linens and stacked up in a room. They had no way of washing it or treating because it posed a danger. You do not want contaminated waste just sitting in a bin. With our Safe-Decon Bio Pro line of products, you can have the patient isolated and with everything that comes out of the room you can get rid of and treat on the premises. It does not have to go out on the highways anymore, risking a truck accident in the middle of the city with possible pandemic type material all over our highways.

CEOFCO: *Would you tell us about the material that the containers are made of and the technology?*

Mr. Dudley: Right now, our units are molded out of a product called Noryl, which is a high-temperature, high-impact material. I have a video of me dropping it from a two-story building on the concrete and then taking it across the parking lot. We have a latch system that is designed

to contain these drops as well we can withstand up to a three-ton internal force so if pressure builds up on the inside.

It is designed to contain almost anything in any situation, but it is the Noryl that does it. We have an antimicrobial compound. While it is sitting there in the room, if viruses come into contact, I want to be able to kill it when it comes in contact with it.

Knowing that it is going to have to come out of the room, they can spray it down with bleach or anything else. However, the fact that it is killing as it is sitting there gives you that extra layer of protection when you are taking this down the hallway with something that you do not want anybody else to get.

CEO CFO: *Would you tell us about how you validated the Safe Decon process?*

Mr. Dudley: I was exposed to two different deadly pathogens and that got me started. It was just an accident that happened where the machine malfunctioned and that is when the idea started. I was speaking to one of the doctors at a research facility and he mentioned "If someone could ever figure this out." That got me shaking my head and within minutes I came up with an idea of how to get it done. That is when I came up with the idea of these containers.

After about a month, I compiled all the components together and created my Frankenstein like most investors do. I tested it and ran twenty tests in a row, effectively with the biological indicator we were able to prove that it would work and that it does kill very effectively in a low amount of time. That is where we got our start and the idea. After that, I looked to see if anybody had invented it and nobody had.

We started working on the patent process, and the product is so unique that the patent went through on the first go. We did not have any issues with the patent; it was issued right away. We did not have any fights over components or what it did. We were the first one on the market with anything that did this.

** I first validated the original container and tested it at the University of Central Florida, once I had established that I had achieved the testing results that I was looking for, I had several containers produced, I asked a laboratory at the University of Florida facility to test several units, this was in 2017, after several months of testing and getting "feedback" we adjusted the containers and started a production run. The University of Florida continued to test and use the containers. I had contacted the University of Albany Medical Center for an evaluation and testing of the units, their testing came back with positive results, we then asked the Safety officer for the New York Dept. of Health to also give our product a through test, their testing was extensive with exacting data on their process, they also came back with positive feedback and a successful testing result. We continue to work with the University of Florida and testing, to date, the Safe-Decon product has achieved a 100% effective decontamination of waste and murine carcasses.

CEO CFO: *Are there regulatory agencies involved in this arena?*

Mr. Dudley: I took it through the FDA and they looked at it and said it was extraordinarily important. They cleared us to put us on the market. The seven weeks and four days they said "Get this to market immediately." As everybody knows, the FDA does not do that in seven weeks. They do not even open their mail in seven weeks. The FDA, OSHA, and EPA, all looked at it and gave their approvals, and told me to get it into the market immediately. We are also attempting to have the CDC evaluate our products and process.

CEOCFO: *What is your strategy to spread the word?*

Mr. Dudley: Currently we are working with research institutions and the hospitals, attempting to show them how cost-effective the units are and how safe they are. One of the problems that we run into is apathy. For the last eighty to a hundred years, the first thing you learn in school is that there is no way of knowing whether or not you are killing it, so you run long times on it. Right now, we are running waste in as little as four minutes. Most people run three-hour or four-hour cycles.

We are trying to overcome the apathy of it. We are reaching out through social media and trying to explain to everybody by emailing and press releases, to do our best and educate people in the field that there is a better way and safer way of getting biohazardous waste under control.

CEOCFO: *How do you deal with some of the frustration in knowing the effect of what you developed and yet people are not jumping on board the way they should?*

Mr. Dudley: I guess I understand it. One of the main issues and course everybody in life understands this and that is if it is too good to be true, it probably is, but that does not happen all the time. That is what I am trying to get people to understand. There is logic behind this, I understand it is a simplistic way of getting it done but sometimes the simple things in life are the most effective, it is when we try to overcomplicate things that bigger problems ensue. That is one of the fights that I have, it is just educating people but as they say "no one wants to be the first," they are afraid in this day and time that nobody wants to be known as the Wuhan, the center of something bad happening. In reality, this is so much more effective and safer that it would help prevent that exact scenario. You are going to know that you got the kill before you ever open up that door, you are going to know that everything in it is dead.

CEOCFO: *Are there ways to reach out to some of the bigger organizations to get them to do a pilot program?*

Mr. Dudley: This also gets into the problem of "too good to be true," I reached out to multiple organizations and Mayo Clinic, different organizations. When you reach out to the bigger organizations one of the issues that you have is you have a problem with the bureaucracy in getting to the correct person. They are massive organizations and you just cannot call up a CEO and get a hold of him to let him know that you have something important.

One of the other things that I know in this industry is these people get inundated with ten to fifteen phone calls and people visiting them to sell them something every single day. As one person told me "The cure for

cancer could be walking through the door and I would never see it because I do not want to see salespeople." Just getting us in front of the right people has been one of my biggest challenges.

CEOCFO: *Are you able to work with autoclave companies?*

Mr. Dudley: This would be in their best interest if an autoclave company worked with me on this, they would sell an extraordinarily large amount of them. I reached out to several but again they are filled with bureaucracy and getting to the correct person to make this happen is a challenge. Most of them have not wanted to team up at all.

CEOCFO: *Are you seeking funding, investments, or partnerships?*

Mr. Dudley: Absolutely, I never turn down money. Anybody that says they are not, is not being truthful. We are always interested. At this point, it would have to be a partnership with money. We are looking for a key investor at this point who has access to these people or industry access.

CEOCFO: *Have you considered that it might be easier in some other country to get this started?*

Mr. Dudley: I am an American company; we are American components. I would love to see us get it here in North America, the US, and Canada first. I am not opposed to some other country. We have had inquiries from other countries. Germany has looked at us and talked to us in the past but we were not at that stage of development yet that they were willing to take us on, we still had a little bit more proving and testing to do.

CEOCFO: *Why choose Safe-Decon?*

Mr. Dudley: Safe-Decon is extraordinarily beneficial for many reasons. One it is all about safety, we can contain and control all the waste and viruses. We are portable, we can take this anywhere. If you have an isolated patient in a house, you can drop off these containers and have someone pick them up and then treat it. They are durable and effective. What is important is you still have to process all of this.

We are greener, as you are using approximately 75% less electricity and water and energy for using these products. More importantly, this is about the safety of everybody out there, controlling and eliminating these viruses and not allowing them to spread within our places of business, hospitals, and research centers. It is about control, contain, and eliminate. That is what Safe-Decon is all about.

