

Carbon Monoxide Monitoring, Poison Prevention and Alert System with smartphone App and the Ability to Turn off a Car Engine

Interview with: Ken Karlin, Co-Founder and Chief Executive Officer and Ted Economy, CTO



Ken Karlin
Co-Founder

Blue Guard Technologies
www.blueguardtech.com

Name: Ken Karlin
Phone: 516-642-3116
Email: ken@blueguardtech.com

Interview conducted by:
Lynn Fosse, Senior Editor
CEOCFO Magazine

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- Ken Karlin

CEOCFO: *Mr. Karlin, would you tell us the concept behind Blue Gaurd?*

Mr. Karlin: The concept is very simple; save lives. This business started as a result of a tragedy. A good friend of mine lost his mother to carbon monoxide poisoning. Most people do not understand the dangers that are out there. Hundreds of people lose their lives every year from a variety of forms of carbon monoxide poisoning. I made a condolence call to my friend because I heard he lost his mother. She died as a result of leaving her car running in her attached garage. The car continued to run and filled her house with deadly carbon monoxide. She went to sleep and never woke up. I was amazed that in this modern era no technology existed to prevent this from happening, the result was the creation of Blue Guard Technologies. Carbon monoxide is a deadly silent killer of which most people are not aware. Whether it is your car, your home heating system, your boat or you portable generator, all of these things if not run properly or maintained or left running in an enclosed space, are death traps. Most people are not aware of this ever present danger.

CEOCFO: *What is your solution?*

Mr. Karlin: Our solution is proactive technology. There are plenty of products on the market whether for your home or other environments, which monitor carbon monoxide. Our solution has the capability of monitoring increasing levels of CO and then taking affirmative action to stop further production before there is a loss of life. In addition to shutting off the further production of the poison our equipment can alert the individuals at risk as well as summon police fire and other first responders to remove the potential victims from the poisonous environment in the event they are not even aware of the risk! Our first product, coCO, is for use in cars, and will shut off the engine when it detects rising levels of carbon monoxide inside the cars cabin or the garage. If you drive your car into your attached garage and walk away and leave it running and you do not do anything about it, your house will fill up with carbon monoxide and you will die. Our product, coCO, measures increasing levels of CO in a car and/or in a garage and takes action by shutting the car off prior to lethal levels of carbon monoxide forming. In addition, it has the capability to alert the user by their own cell phone as well as alert fire and police personnel to respond to an emergency situation.

CEOCFO: *Do most people realize it can happen to anyone?*

Mr. Karlin: Unfortunately there is not enough awareness. If you look online you will see countless stories of people who lost their lives in a variety of carbon monoxide poisoning scenarios. A large majority of them are from cars left running in attached garages. Ted can jump in here. He just had a conversation with one of our parts suppliers who faced the same awareness issue. If you say carbon monoxide to people, they think of CO₂, which are the bubbles in your soda. If you do the research there are plenty of 501c organizations trying to raise awareness as a result of someone's personal tragedy.

We now know people who have lost children or other loved ones. It is more common than people are aware. It is a problem that nobody is addressing which is why we jumped in to try and take care of it. The scenario that got us involved, my friend's mother who was living in Florida drove her car into the garage. Hers was not a keyless ignition, it was a Toyota with standard ignition. She got out of the car to unload groceries and she must have gotten distracted by a phone call or something and closed the garage door. She never shut the car off. Many people think this is strictly keyless ignition problem. The problem is cars have gotten more and more sophisticated, one of the results is they have become almost silent when running! You can walk up to a car or get out of your car and not even realize it is running. Have you ever experienced that terrible noise when you turn the key to start your car and realize, it's already running? It is very dangerous.

CEOCFO: *Physically, what is the piece of equipment that will do the detection? Where does it go?*

Mr. Economy: Our solution is three-pronged. Our product, coCO, which stands for Carbon Monoxide Car Off, consists of a base unit which interfaces into the fuse block of the automobile. Installation is as easy as changing a blown fuse. It has an onboard carbon monoxide sensor. It has the ability to interface with a remote sensor that can be mounted inside your garage or inside your engine compartment, specifically outside of the vehicle cabin. The two units electronically talk to one another. If either of those devices sense increasing levels of carbon monoxide, the base unit, connected to the fuse box, has the ability to turn off the fuel pump which stops the engine and further carbon monoxide emission. The last component is your smart phone which is used in the initial setup and monitoring of the coCo components. It also allows the user to monitor the system and insure the components are properly connected and working. The smartphone app also alerts you to nominal as well as dangerous levels of carbon monoxide.

CEOCFO: *What was the challenge in putting the technology together or is it more that no one thought about doing it before?*

Mr. Mr. Economy: You have to know what you are doing to design a system like this to work but it is not that difficult. This is the 21st century and we put men on the moon and we have made many other scientific achievements. If you put your mind to it you can do it. We investigated a variety of ways to accomplish the task. We came up with coCO. It has been prototyped and it works. One of the points I want to make is in the last 25 years every car made has an electric fuel pump. When I was a kid and first started driving in the 1960's, every car manufactured had a mechanical fuel pump. As long as the engine was running fuel was being pumped to the carburetor. Our system would not have worked on that generation of vehicle. That is no longer the case. Every car manufactured in the last 25 years employs electrically driven fuel pumps. Our system measures the CO levels and if it sees a level that appears to be dangerous, it deprives the power to the electric fuel pump and shuts the engine off. The engine cannot run if there is no fuel pump running. We conceived it, we designed it, we made it work and it exists. Could somebody else have done it? Yes. You have to recognize and identify a problem in order to solve it. The car manufacturers have neither recognized carbon monoxide poisoning as a serious enough problem and as a result have not addressed it. We have! The seven major auto makers are currently facing a variety of law suits and still fail to address the problem that we have a solution for!

Mr. Economy: I would say the most confounding or disappointing component of this whole thing is the fact that carbon monoxide sensors have been around for quite a long time. With the exception of a beeper going off, they are essentially passive devices that take no affirmative action. Our solution takes that next step and if the carbon monoxide has already put you to sleep or if you are not cognizant for whatever reason, our system will address the problem by stopping further poison production at the source, which is a huge difference. It was incredible to us that no one else has done this.

Mr. Karlin: Our prime focus now is on the auto industry and the auto situation. Think about how many stories you have read in the paper about people in the workplace or their home who were overwhelmed by carbon monoxide by a heating system that was defective, or a generator that was left running in the house. We also have a carbon monoxide monitor which is proactive, it monitors the level but it also wirelessly and Blue Tooth and cellular has the capability to reach out to the fire department to respond to the situation. In addition it will, as in the case of coCo for autos, shut down the heating system, generator, etc producing the poison.

CEOCFO: *How are you gaining attention today and how will you be as you move forward to commercialization?*

Mr. Economy: Our primary focus is on crowdfunding via Kickstarter. Our goal is to raise the required funds for us to take this to the next level. We self-funded this from the beginning and now we are looking for the Kickstarter community to assist us to advance all the work that we have done so that we can turn this into a commercially available product. We started out with the goal to save lives. We are looking for any media outlets or partners to help us promote coCO at this point.

EOCFO: *Why the decision to go the Kickstarter route?*

Mr. Karlin: Kickstarter has proven to be a community that responds to an innovative useful product. It is a community that

will come together and support you. Should that not prove successful, we could always go out and get venture capitalists, but at this point we want to maintain control of our own company.

CEOCFO: *Would you consider eventually licensing the technology or would you like to be the manufacturer as well as the supplier?*

Mr. Karlin: We are open to anything that gets this product on the market and makes it available to the public and saves lives. Licensing is certainly not out of the question.

CEOCFO: *What has been the response on Kickstarter and to the device itself?*

Mr. Karlin: Most people think it is a fantastic product and idea. I think our biggest hurdle is making people aware of the severity of the risk of the loss of life in this situation. As I said, when you say carbon monoxide to people, a lot of people think of CO2 bubbles in your soda, they do not think of poison so there is a level of awareness that we have to raise to make a bigger impact.

CEOCFO: *Where might you reach out?*

Mr. Karlin: We are trying to get a hold of somebody at AARP because certainly seniors are more vulnerable although anyone is vulnerable. I think the majority of losses and deaths that we have seen in the news are people over 60. There are a number of 501c3 companies. I spoke to a woman by the name of Vilma Perez who lost her son in another scenario twelve years ago. Her son was sitting in a car with his girlfriend in a parking lot having a conversation and they had an exhaust leak in the car. The two kids perished from carbon monoxide and she started a 501c3 to raise awareness and save lives. She is in Florida and she is extremely active. These people are trying to raise awareness. The biggest challenge is to raise awareness.

CEOCFO: *Have you done any research on what might be an appropriate price point?*

Mr. Karlin: Ted, who is the technical advisor on that, has done this type of thing in the past and it is not his first rodeo. Based on our analysis, we have a projected retail price of approximately \$150 for the unit, which we do not feel is too expensive for anybody for a lifesaving product. I would like to mention our goal is to completely source and manufacture in the United States. It may come down in larger quantities. I think that is a reasonable anticipated price for it.

CEOCFO: *Are you anticipating the day when it is standard feature on all vehicles?*

Mr. Karlin: It should be. It should have been done already. Let us say the car companies suddenly wake up and start putting something in the car or they want to start licensing it from us. The fact of the matter is there are about 200 million cars on the road today with electric fuel pumps, which this system is easily retrofit-able to. Just because it is not a brand-new car does not mean the danger does not exist.

CEOCFO: *Do you see other countries that might be quicker to adopt a device like yours, or are you just concentrating on the US now?*

Mr. Karlin: Right now we are just concentrating on the US. We are a couple of small guys trying to bring an important product to market. This is two-fold; we are trying to save lives and we are trying to make a commercial venture here. We are not closed minded to anything that brings this product to market and prevents loss of life.

CEOCFO: *Why is Blue Guard Technologies so important?*

Mr. Karlin: Our job and our mission is to save lives. Life is too short as it is. No one should have their life shortened by accidental carbon monoxide poisoning!!

