

## MICHAEL M. BADEN, M.D.

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Via e-mail to [bhall@bhalllawfirm.com](mailto:bhall@bhalllawfirm.com)

Benjamin L. Hall, III, Ph.D., J.D.  
The Hall Law Firm  
530 Lovett Boulevard  
Houston, Texas 77006

*Re: Bebee, et al v. Motorola Solutions, Inc., et al.*

Dear Mr. Hall:

I have reviewed the Texas "Fire Marshall's Firefighter Fatality Investigation" report, the autopsy and toxicology reports, scene and autopsy photographs, X-rays, microscopic slides, EMS reports, a "Timeline of Events," and the deposition testimony of Wayland Kelley that you sent to me relative to the deaths of Anne McCormick Sullivan, Robert Garner, Mathew Reynaud and Robert Ryan Bebee.

The four firefighters were inside Houston's Southwest Inn restaurant when the roof collapsed during a fire, trapping them, on May 31, 2013, at 12:23 p.m. Rescue efforts were delayed because there was an inability to make radio contact with the firefighters. A second collapse occurred at 13:04. The compressed air cylinders in the Self-Contained Breathing Apparatus (SCBA) that the four carried were all empty when their bodies were recovered, indicating that they were all alive

and breathing for a considerable time until the air within them was exhausted. All had kept their face masks on which prevented them from inhaling smoke and dying of carbon monoxide poisoning. However, they lost consciousness after their air supply stopped and then they died because they were not found during the five to ten minutes after cardiopulmonary arrest when CPR would more likely than not have been successful. Of note, Captain Dowling was still alive when he was rescued at 12:52:51.

In deposition testimony Firefighter EMT Wayland Kelley of the Houston Rapid Intervention Team described how he responded to the fire when a mayday was called after the roof collapse. He found Firefighter Garner seated on the ground with a fallen electric conduit near his chest and Firefighter Sullivan lying face down on the floor near him. Kelley had finished preparing his airbag pack to elevate the conduit and create a rescue space for Garner and Sullivan when a second collapse occurred and he was ordered out. He said that he was able to touch Garner but unable to take his pulse or Sullivan's pulse. He testified that if he had two minutes more time he would have been able to remove both firefighters to the waiting ambulance. He also said that he knew of cases where the Houston Fire Department had brought people "back to life" five and ten minutes after they were found not moving, not breathing and with no pulse.

Probationary Firefighter Anne Sullivan was 24 years old. The cause of her death was certified by the medical examiner as "Compression asphyxia, blunt head trauma and smoke inhalation," which would have caused a rapid death and air would still have been in her SCBA cylinder. The autopsy found no evidence of compression of her chest, abdomen or neck, and no significant injury to her skull or brain. The autopsy photographs and microscopic slides that I examined showed no abnormalities of the brain or lungs and no evidence of inhaling smoke into her lungs. Toxicology showed that she had not inhaled any carbon monoxide. The presence of fine petechial hemorrhages on her face and chest can be found in compressive asphyxia, but they are non-specific and can be found in many other conditions, including in bodies lying face down after death as happened to Firefighter Sullivan.

The circumstances and autopsy and toxicology findings establish in my opinion that she lost consciousness only after she had depleted all of the air in her SCBA cylinder. A few minutes later her heart would have stopped pumping blood to her brain. She would have been able to be resuscitated during those minutes and for five minutes after her heart stopped, when her brain cells began dying, and for another few minutes until her brain died.

Captain EMT Mathew Renaud, 35, was recovered with his facial shield partially melted by the heat of the fire. Autopsy and X-ray findings show that he had not incurred any significant traumatic injuries. He did have a small increase, 13%, of carbon monoxide in his blood indicating that he inhaled some smoke, insufficient to cause death. It is necessary for carbon monoxide to reach about 50% to cause death. I disagree with the attributed cause of his death of "Smoke inhalation" and believe his death also was caused by "Suffocation due to depletion of air."

Firefighter Garner's cause of death was listed as "Compressional asphyxia." However, Firefighter Kelley does not describe seeing significant chest or abdominal compression. There were no marks or injuries noted in the autopsy report, nor apparent in the autopsy photographs, that indicate that his chest was compressed which would have happened soon after the roof collapse so that air would still have been in his cylinder when he died. In my opinion he lost consciousness when he ran out of breathable air and he died because he was not found in a timely manner.

When Engineer Operator Robert Bebee, 41 years old, was removed from the burned structure at 13:04 and was taken by ambulance to Memorial Hermann Southwest Hospital, according to EMS he was cyanotic which is evidence that his death was caused by an inability to breathe in air containing oxygen. He was taken by ambulance to Memorial Hospital where he did not respond to CPR and was

pronounced dead at 13:22. He had not inhaled any carbon monoxide but had incurred thermal burns of his back, sufficient to cause injury but not to have caused his death. The cause of death was certified as "Smoke inhalation with thermal injuries." His SCBA was also empty.

It is my opinion, to a reasonable degree of medical certainty, on the basis of my education, training and experience, and the above materials that I have reviewed, that Firefighters Bebee, Garner, Renaud and Sullivan died of suffocation after their compressed air had been depleted; that if they had been found within five to seven minutes earlier they would have successfully responded to CPR; and that the attributed causes of death are not supported by the circumstances, autopsy and toxicologic findings.

My opinions are subject to modification should I receive additional materials.

Very truly yours,

A handwritten signature in blue ink that reads "Michael M. Baden". The signature is fluid and cursive, with a long horizontal line extending to the right.

Michael M. Baden, M.D.  
Former Chief Medical Examiner  
New York City  
Former Chief Forensic Pathologist,  
New York State Police

MMB:ph