COURT OF COMMON PLEAS
HAMILTON COUNTY, OHIO

DONALD E. ZANG, et al.,	:	Case No. A1203403
Plaintiffs	:	
vs.	:	Judge Carl Stich
MATTHEW CONES, et al.,	:	
Defendants	:	

DECISION AND ENTRY GRANTING MOTIONS FOR SUMMARY JUDGMENT

Defendants Motorola, Inc., Morning Pride, LLC, and Honeywell International, Inc. seek summary judgment on all of plaintiffs' claims. Plaintiffs acknowledged at oral argument that Honeywell was not a manufacturer of any of the products and should be dismissed. Thus the question before the court is whether there are disputed issues of material fact preventing judgment as a matter of law for defendants Motorola and Morning Pride. The court has considered the pleadings, memoranda, depositions, exhibits, and arguments of counsel, and finds that the motions are well-taken and should be granted.

MATERIAL FACTS NOT REASONABLY IN DISPUTE

This case arises out of the tragic death of Captain Robin Broxterman of the Colerain Township Fire Department while fighting a residential fire at 5708 Squirrelsnest Lane on the morning of April 4, 2008. The plaintiffs are executors of Capt. Broxterman's estate. They allege that her death was proximately caused by defects or faulty warnings in products manufactured by the defendants. Morning Pride

manufactured Capt. Broxterman's personal protective equipment (PPE)—her helmet, jacket and trousers, also known as turnout gear. Motorola designed and manufactured the radio used by Capt. Broxterman at the scene and the digital radio system operated by Hamilton County.

Colerain conducted an extensive investigation and issued a 463-page report. All parties and their experts rely upon the report, and all agree that it can be considered by the court. A less extensive report was issued by the National Institute of Safety and Health, and was also cited by experts on both sides. The relevant conclusions of the NIOSH investigation do not materially differ from the findings in the Colerain report.

The only surviving eyewitness is firefighter Michael Vadnais, a crewmate of Capt. Broxterman and the last person to see her alive. The radio log and testimony of Vadnais provide a timeline of events.

The Squirrelsnest fire

The Hamilton County Communications Center received an automated alarm report of a possible residential fire at the Squirrelsnest property on the morning of April 4, 2008. Colerain Engines 102 and 109, Ladder 109, and District 25 were dispatched. Capt. Broxterman was in charge of Engine 102. She was accompanied by firefighters Vadnais and Brian Schira. Broxterman was a 17-year veteran, and initially assumed command control at the scene.

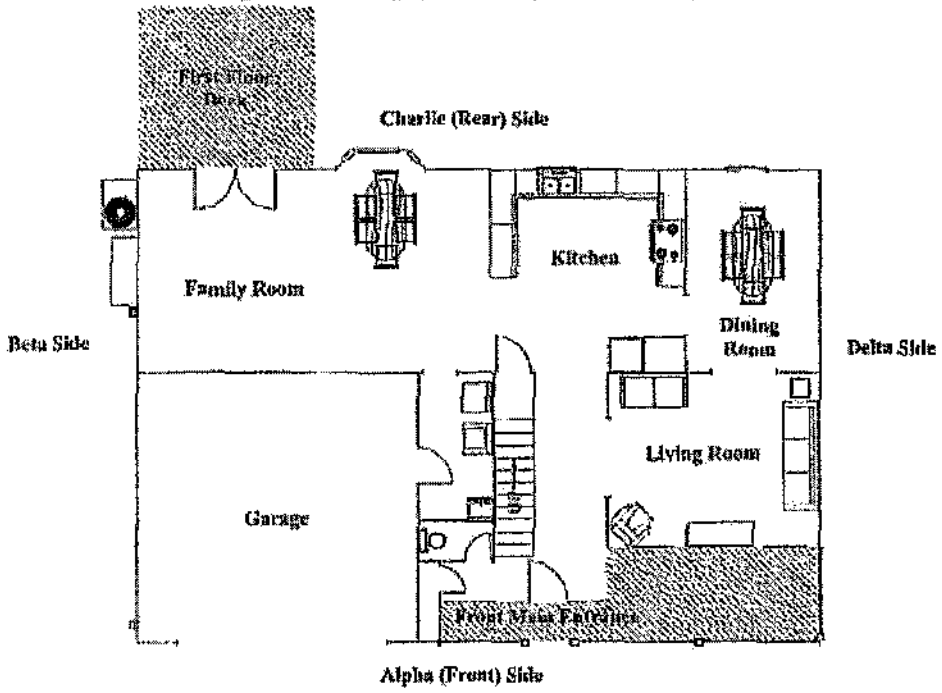
A variety of mistakes were made during the response to the Squirrelsnest fire, such as the delay in upgrading the alarm to a working fire, delays in reaching the site, and failure to conduct a 360 degree site inspection before entering the house. Those mistakes and others may well have contributed to the conditions leading up to Capt. Broxterman's death, but few of them are material to the pending motions. Firefighting

equipment is intended for use in ultra-hazardous conditions. Even if those conditions arose because of foreseeable human error—including that of the victims themselves—the equipment should perform properly.

The Engine 102 crew enters the house

The time period relevant to this inquiry is short. Fewer than ten minutes elapsed from the time Capt. Broxterman entered the house to the time she likely perished. The key events took place primarily on the first floor, which is depicted in the Colerain report:

Figure 9: Building's first floor layout (not to scale).



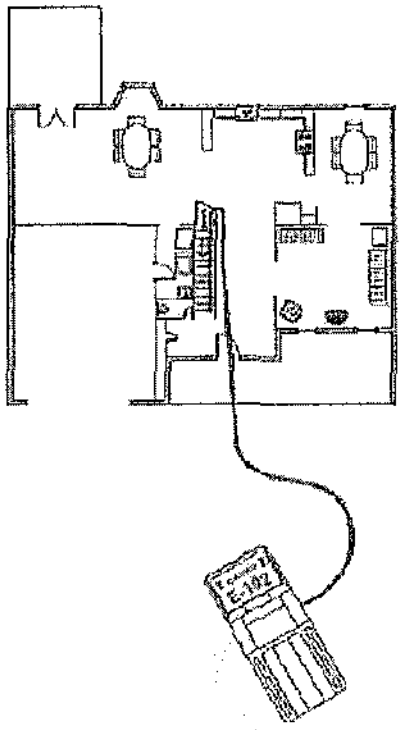
The house sits on a lot sloping thirteen feet downhill from front to back. The basement entrance in the rear is approximately five feet above grade level.

The radio logs show that at 6:26:56 Capt. Broxterman reported that she was advancing into the structure. She was accompanied by Schira, who was in the lead, and Vadnais, who was pulling the attack hose. Seven seconds later she radioed: "We need

water." Others on the ground heard the broadcast, but the firefighter at the pump missed it. It would be three-and-a-half minutes before the attack hose was charged.

At 6:27:52, Capt. Broxterman radioed: "Making entry in the basement, heavy smoke." Vadnais confirms that visibility as they descended the stairs was nil, although the heat at that point was not high. The attack hose was deployed through the front door and then around a corner down the stairs to the basement, as shown in the report.

Figure 12: E102's deployed attack hose line and route of travel into the first floor interior of the building (not to scale).



Schira and Vadnais reached a landing at the bottom of the stairs and realized that they were out of hose. Vadnais went back up the steps to pull down more hose. At some point he had passed Capt. Broxterman on the way down the stairs, and encountered her as he neared the top. He told her to call for water. Vadnais went to the front entrance and pulled in another ten to fifteen feet of hose. The heat by now had intensified significantly.

Capt. Broxterman calls for Mayday, tells Vadnais to get out

When Vadnais went back into the house he encountered Schira and Capt. Broxterman in the kitchen at the top of the stairs. Broxterman was crouched down; Vadnais thought she might have been "playing with" the radio. He could hear the fire crackling and drywall was beginning to fall. He heard a high-pitched beep, which sounded like the radio was changing channels. Broxterman called "Mayday" two or three times. Vadnais heard the radio "bonk" several times. A bonk is an audible signal given when a user hits the push-to-talk (PTT) button, but is denied access because the line is already in use. Digital trunk systems such as the one used in Hamilton County permit only one user to transmit at a time. A user can obtain priority and override other transmissions by pressing an emergency button recessed on the top of the radio near the antenna. There is no evidence that Capt. Broxterman ever pushed the emergency button.

The radio logs show that Capt. Broxterman attempted to transmit but was denied access four times in the 27 second span between 6:28:40 and 6:29:07. While Capt. Broxterman was calling Mayday, Vadnais pushed and held the PTT button on his radio until he was allowed to transmit. The radio logs show that at 6:29:24 he got through, transmitting, "We need water"—seventeen seconds after the rejection last of Broxterman. The attack line charged almost immediately. (Engine 109 announced at 6:30:16 that it was turning on the water.)

Vadnais started toward the basement, but was only a step or two down when Capt. Broxterman grabbed him and told him to get out. He followed the hose back out of the house through the front door. He assumed that Schira and Capt. Broxterman were having trouble pulling the hose out with them, so he tugged the line a few feet

before it jammed. Vadnais thought that Capt. Broxterman might have tried to go out the garage. He ran to the garage, but saw no one. That led him to believe that Schira and Capt. Broxterman were still in the house fighting the fire, so he went back into the house. By the time he reached the kitchen the fire had intensified. He scooted on his stomach around the kitchen and down to the bottom of the basement stairs, but Broxterman and Schira weren't there. After yelling for them without success, he followed the hose back upstairs and out of the house. He ran into other firefighters at the scene and told them what happened. At 6:34:48 the radio logs show that Vadnais reported losing touch with his crew.

The collapse

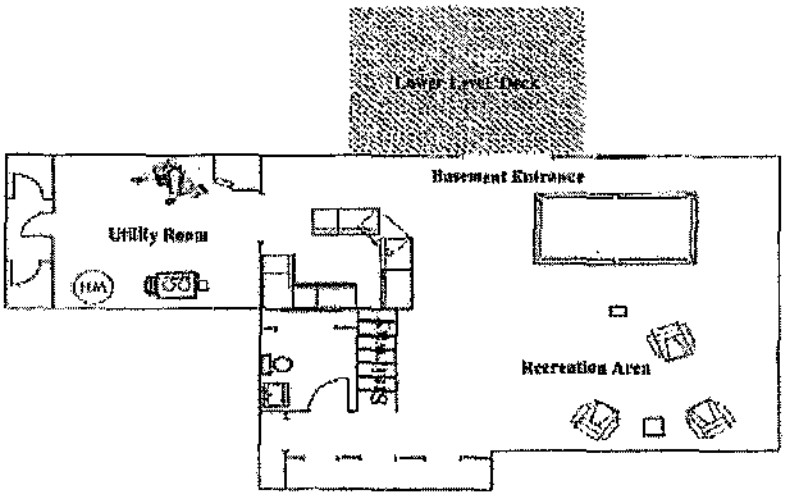
The enduring mystery in this case is why Capt. Broxterman did not follow Vadnais out of the house. The situation had deteriorated to the point that she called Mayday three times and instructed Vadnais to get out. Firefighters are trained to follow the hose to the exit, which is what Vadnais did. Broxterman and Schira, however, went in the opposite direction, to the family room. It is possible that they were overcome by heat, became disoriented, and lost their way. Perhaps they saw light through the double doors and thought it the quickest route to safety.

Another explanation is that Capt. Broxterman thought she was following orders to go out the back. At 6:30:35, Engine 109 radioed instructions for her crew to pull out of the first floor and re-deploy to the rear. The instructions from Engine 109 came nineteen seconds after it charged the attack hose—around the same time Capt. Broxterman grabbed Vadnais and told him to get out.

Whatever the reasons, it is clear that Schira and Capt. Broxterman went into the family room. That put them directly atop the origin of the fire, which started in a

basement utility room closet. By the time Schira and Capt. Broxterman stepped into the family room, flames had weakened the exposed timbers of the utility room ceiling, which collapsed under their weight. They fell into the heart of an active fire fed by a gas leak in the nearby furnace. (It is unknown whether the gas line ruptured before or after the ceiling collapsed.) Their bodies were found under debris from the collapse, as shown in the upper left of a diagram from the Colerain report.[1]

Figures 21 & 22: Approximate location where both deceased firefighters were found (not to scale).



It is impossible to pinpoint the time of the collapse. It could not have occurred much before 6:31, given that Capt. Broxterman ordered Vadnais out of the house shortly after the attack hose was charged (6:30:16). Vadnais estimated that he was outside for about a minute before he went back in and searched for his crewmates in the kitchen and bottom of the stairs. The consensus is that the collapse must have already occurred by the time Vadnais reported that he had lost touch with the crew (6:34:48).

Whatever the exact timing of the collapse, there is no evidence that Capt. Broxterman tried to exit the front of the house, following the hose as Vadnais. Nor is

[1] No one has argued that Schira and Broxterman were already in the utility room when the ceiling collapsed. That would have required them to negotiate the stairs and several turns in zero visibility, walk into the heart of the blaze without an attack hose, and stay there until the ceiling gave way.

there evidence that she attempted further radio transmissions or pressed the emergency button any time after the four rejections, even though Vadnais was able to call for water. Schira's radio activated at 6:33:17, and a transmission at 6:33:37 was inaudible. His radio activated again at 6:41:21, 6:42:47, and 6:42:49, which is attributed to radio degradation from extreme heat. The same explanation is given for activity logged from Capt. Broxterman's radio between 6:49:57 and 6:50:14.

The commanding officer on the scene declared a Mayday operation at 6:41. A Rapid Assistance Team (RAT) team entered the basement at 6:42 and four minutes later reported finding the attack hose on the stairs. Calls were made to shut off the natural gas, which was feeding the fire in the utility room. The shut-off was confirmed at 6:56. Capt. Broxterman's body was found under debris in the utility room at 7:08. Firefighter Schira's body was found beneath hers at 7:29.

THE PLAINTIFFS' CLAIMS

The plaintiffs argue that the Morning Pride PPE—the firefighter's helmet, coat, and trousers—were defective because they failed to protect Capt. Broxterman from the fire. Alternatively, plaintiffs argue that the warnings accompanying the PPE were inadequate. They acknowledge that the warning told users that they would not be protected from "all hazards encountered during emergency operations," but argue that the warning was "too vague to be of use" in warning Capt. Broxterman that the PPE would not protect her from a "simple structure fire."

As for the Motorola products, the plaintiffs argue that the 800 MHz digital trunk communication system was defective, primarily because it will not permit more than one user to speak at a time. That resulted in Capt. Broxterman experiencing the rejections (bonks) recorded in the radio log. They contend that handheld radio unit

itself was defective because the emergency button would be difficult to press wearing gloves, making it unsuitable for firefighting operations.

SUMMARY JUDGMENT STANDARD

> Summary judgment is appropriate if (1) no genuine issue of material fact exists for trial, (2) the moving party is entitled to judgment as a matter of law, and (3) reasonable minds can come to but one conclusion and that conclusion is adverse to the nonmoving party, who is entitled to have the evidence construed most strongly in his or her favor.

Evans v. Thrasher, 1st Dist. No. C-120783, 2013-Ohio-4776, ¶ 25. Once the party moving for summary judgment presents evidence showing that the opposing party cannot support its claims, the opposing party has a reciprocal burden to set forth specific facts showing that a genuine issue of fact exists for trial. *Dresher v. Burt*, 75 Ohio St.3d 280, 293, 662 N.E.2d 264 (1996). "The trial court has an absolute duty to consider all pleadings and evidentiary material when ruling on a motion for summary judgment. It should not grant summary judgment unless the entire record shows that summary judgment is appropriate." *Riverhills Healthcare, Inc. v. Guo*, 1st Dist. No. C-100781, 2011-Ohio-4359, ¶ 12.

THE PRODUCTS LIABILITY ACT

The plaintiff's burden in a products liability action is to establish all of the following by a preponderance of the evidence:

1. That the product was defectively manufactured or designed, did not contain adequate warnings, or failed to conform to the representations made by the manufacturer;

2. That the defect or inadequate warning was proximate cause of the injury; and

3. That the manufacturer designed, formulated, produced, constructed, created, assembled, or rebuilt the product.

R.C. 2307.73(A). Plaintiffs do not argue that the products were defectively manufactured. They argue that the defendant's products were defectively designed.

Under R.C. 2307.75(A), a product is defective in design if the foreseeable risks associated with the design exceeded the benefits associated with that design. The following factors are to be considered in performing the risk-benefit analysis.

> (B) The foreseeable risks associated with the design or formulation of a product shall be determined by considering factors including, but not limited to, the following:
>
> > (1) The nature and magnitude of the risks of harm associated with that design or formulation in light of the intended and reasonably foreseeable uses, modifications, or alterations of the product;
> >
> > (2) The likely awareness of product users, whether based on warnings, general knowledge, or otherwise, of those risks of harm;
> >
> > (3) The likelihood that that design or formulation would cause harm in light of the intended and reasonably foreseeable uses, modifications, or alterations of the product;
> >
> > (4) The extent to which that design or formulation conformed to any applicable public or private product standard that was in effect when the product left the control of its manufacturer.
> >
> > (5) The extent to which that design or formulation is more dangerous than a reasonably prudent consumer would expect when used in an intended or reasonably foreseeable manner.
>
> (C) The benefits associated with the design or formulation of a product shall be determined by considering factors including, but not limited to, the following:
>
> > (1) The intended or actual utility of the product, including any performance or safety advantages associated with that design or formulation;
> >
> > (2) The technical and economic feasibility, when the product left the control of its manufacturer, of using an alternative design or formulation;

(3) The nature and magnitude of any foreseeable risks associated with an alternative design or formulation.

A product cannot be defective in design if the characteristic linked to the injury is an inherent part of the design that cannot be eliminated without substantially compromising its usefulness or desirability, and which is recognized by an ordinary person in the community. R.C. 2307.75(E). Nor can a product be defective if there is no feasible alternative design. R.C. 2307.75(F).

Plaintiffs contend that the Morning Pride PPE was also defective because the warnings provided with the products were inadequate. Proof of an inadequate warning requires plaintiff to show (1) that the manufacturer knew or should have known of the risk, and (2) that the manufacturer "failed to provide the warning or instruction that a manufacturer exercising reasonable care would have provided" in light of the likelihood and seriousness of the potential harm. R.C. 2307.76(A)(1). Both elements must be proven. *Griffith v. Chrysler Corp.*, 7th Dist. No. 2000-CO-67, 2003-Ohio-3464, ¶¶ 59-61. The manufacturer cannot be held liable for failing to warn of an open and obvious risk that was a matter of common knowledge. R.C. 2307.76(B).

MORNING PRIDE IS ENTITLED TO JUDGMENT AS A MATTER OF LAW

Plaintiffs did not retain an expert to offer opinions about the Morning Pride PPE. Defendant Morning Pride offered the affidavit of Alan Schierenbeck, a Senior Product Specialist for Honeywell First Responder Products. He states that Capt. Broxterman's gear was state-of-the-art, met all applicable standards, and was free of defects in its design and manufacture. He also described in detail the warnings provided with the PPE and permanently attached to the gear. After an inspection of Capt. Broxterman's gear, he concluded: "Based on upon the condition of the gear, which is among the worst

I have ever seen in my decades in the industry, Captain Broxterman was exposed to an unsurvivable thermal condition."

Morning Pride also retained professional engineers Jamie McAllister and Richard Roby of Combustion Science & Engineering, Inc., to conduct an analysis of the fire. Their findings agree with those of Schierenbeck: "Based on damage to Cpt. Broxterman's PPE, conditions within the basement clearly exceeded those for which her PPE was required, designed, and reasonably expected to protect against." They concluded that "Capt. Broxterman's injuries and death were not the result of any design or manufacturing defects in her PPE, but rather result of lengthy exposure to severe thermal conditions that exceeded the design capabilities of her PPE."

Thus the undisputed evidence is that Capt. Broxterman was subjected to conditions that far exceeded what any PPE could be expected to withstand; that the Morning Pride gear was state-of-the-art; that the gear complied with all relevant standards; and that there would be no feasible way to improve its heat-resistant properties without violating other standards, such as breathability. The plaintiffs offer no contrary evidence, nor do they propose a workable alternative design. Their only argument is that the gear *must* be defective because it didn't prevent Capt. Broxterman's death. In light of the overwhelming evidence that she was placed in an unsurvivable situation, the failure of the gear to save her life is not evidence of a defect. The plaintiffs have failed to create a genuine issue of material fact as to a design defect in the Morning Pride PPE.

Likewise, the plaintiffs have not created a triable issue of fact as to the adequacy of the warnings. The Morning Pride PPE was accompanied by extensive warnings about the limits of turnout gear to protect against fire. A lengthy set of warnings was

contained in the product information supplied with the gear, as detailed in exhibits to the affidavit of Allan Schiereneck. Extensive and prominent warnings were also permanently affixed to the gear itself. After the word "DANGER" at the top of the warning label are the following opening lines:

> THIS PROTECTIVE GARMENT WILL NOT PROTECT YOU FROM ALL HAZARDS ENCOUNTERED DURING EMERGENCY OPERATIONS, ESPECIALLY FIREFIGHTING. Given the ULTRAHAZARDOUS and INHERENTLY DANGEROUS conditions of emergency activities, and despite the protective qualities offered by this protective garment, you may still be subject to BURNS, INJURIES, DISEASES, and ILLNESSES with NO WARNING and NO SIGN of damage to this garment.

The plaintiffs argue that this warning is "too vague," but they offer no coherent explanation of why a firefighter needs anything more specific, or what additional information was need to make the warning adequate. Detailed information about how long the PPE could resist specific conditions would be both impractical and potentially misleading, given the varied conditions in which the gear would be used.

Moreover, no reasonable person—especially one whose vocation is to fight fires—would expect turnout gear to provide protection from the type of conditions into which Capt. Broxterman fell. All three of the firefighters deposed in this case were aware of the practical limitations of the PPE. As Vadnais put it, "We were told to put it on quickly and properly and that it – it wouldn't last long at all in direct fire conditions."

Finally, the plaintiffs cannot point to any evidence that the product warnings contributed to Capt. Broxterman's death. She didn't wander into the heart of an active fire because she overestimated the capabilities of her gear; she fell into the fire because its intensity caused the floor to collapse. The proximate cause of her injuries was a catastrophic event. Even if the warnings included survival times at flashover conditions,

there is no proof that Capt. Broxterman would have behaved any differently than she did, nor that she could have escaped after the fall.[2]

Even if the plaintiffs are not, as they argue, required to present expert testimony, they cannot avoid their obligation to respond once the defendant has come forward with expert evidence directly disproving their claims. There is no disputed issue of material fact as to the adequacy of either the design or the warnings.

MOTOROLA IS ENTITLED TO JUDGMENT AS A MATTER OF LAW

Alleged defects in Motorola's digital trunk system

Motorola sold the digital trunk communication system to Hamilton County in response to a bid request that specified a digital system compliant with the P25 standard adopted by the Association of Public Safety Communications Officers (APCO). The standard allows manufacturers to produce compatible equipment and permits communication between platforms. The system is operated by the Hamilton County Communications Center, which serves the Colerain Township Fire Department.

Motorola's system complies with the APCO P25 standard. The premise of plaintiffs' argument is not that Motorola supplied a defective digital system, but that a digital system is inferior to an analog system for firefighting, primarily because digital allows only one speaker at a time. (Plaintiffs criticize other aspects of the system, but offer no evidence that the other alleged flaws had anything to do with this incident.) Proponents of digital systems favor allowing one user at a time to be clearly understood and to know that the message is not being preempted or drowned out by others. A wider public policy advantage is that digital consumes less bandwidth than analog,

[2] The plaintiffs suggest at oral argument that Capt. Broxterman might have chosen a different occupation if she had known that here gear would only last a matter of seconds in a flashover. Capt. Broxterman was a seventeen year veteran. There is no evidence that she chose her career and stuck with it because the label on her Morning Pride trousers gave her false comfort.

allowing the excess to be recaptured and used elsewhere. That is one reason the federal government encouraged a nationwide move toward digital and away from analog. The plaintiff's expert, Neil Shirk, confirmed that trend:

> Q. Would you have any idea in the last ten years, last 15 years, of the trend where more metropolitan areas – and I understand there are some that have gone back to analog conventional, but as a trend, do we know whether more metropolitan areas are moving towards digital trunked versus analog conventional or not? Do you –
>
> A. Well, they are, because it's driven by the spectrum utilization savings that the FCC's pushing, so certainly they are. . . . But that doesn't mean it's a safer system and doesn't mean it's a good fit for the firemen.
>
> Q. Okay. Doesn't mean the system's defective either, does it?
>
> A. Doesn't mean it's defective. Just doesn't work [] – during a crowded situation.

The ultimate question posed by the plaintiffs' argument is simple: Can a manufacturer be liable for supplying a non-defective product in compliance with a buyer's wishes, if a product using another design would be superior? Plaintiffs' position is that a manufacturer cannot be absolved of liability for providing an unsafe product of its own design merely because a buyer asked for it. They give the example of the Ford Pinto, which complied with the buyers' wishes to purchase a workable internal combustion car but had the regrettable tendency to burst into flames when rear-ended.

The Pinto analogy fails because the Pinto was a defective version of the technology it was designed to represent—a gas-fueled car. A buyer who specified a car with an internal combustion engine could justifiably complain if it exploded during normal and foreseeable use. This case is more analogous to a buyer who demands an electric car, is supplied with a Tesla, and complains that it won't run on gas.

The plaintiffs do not contend that Motorola supplied a defective version of a digital communication system. The plaintiffs contend that Hamilton County shouldn't

have used a digital system in the first place; it should be using an analog system, and Motorola should have refused to supply a digital system for firefighting applications.[3] There is no claim of inadequate warnings. There is no claim that Hamilton County didn't know about the trade-offs. The claim is that digital systems just aren't as good as analog. It's akin to saying that Tesla shouldn't supply fire engines unless they're capable of performing in a foreseeable emergency.

Design defect claims are subject to the risk-benefit analysis contained in R.C. 2307.75. The statute codified the approach taken in previous decisions of the Ohio Supreme Court, which allowed a product to be found defective under *either* the consumer expectation test or the risk-benefit test. *Perkins v. Wilkinson Sword, Inc.*, 83 Ohio St. 3d 507, 508, 700 N.E.2d 1247 (1998). "[A] product may be found defective in design even if it satisfies ordinary consumer expectations if the jury determines that the product's design embodies 'excessive preventable danger.'" In other words, "if the jury concludes that one standard is not met, the jury may consider the other standard." *Beavercreek Local Schools v. Basic, Inc.*, 71 Ohio App. 3d 669, 693, 595 N.E.2d 360 (1991).

There has been no evidence that the system produced by Motorola failed to meet the expectations of Hamilton County and Colerain Township. To the contrary, Motorola provided the system to meet the exact specifications required by the Hamilton County request for proposal, and the one-speaker-at-a-time feature is typical of digital systems.

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[3] Lost in this discussion is the fact that the Hamilton County system was intended for use in a variety of emergency settings. Firefighting was only one. There might be good reasons to prefer a digital system to an analog system for a communications network spanning firefighting, 911, law enforcement, disaster relief, and other contingencies. There might also be ways to combine digital and analog in some settings, as Neil Shirk claims has been done in Phoenix.

A dispute remains among the experts, however, as to whether a digital system poses greater risks than benefits when used at the scene of a fire.

"R.C. 2307.75 fully contemplates that a manufacturer may be liable for failing to use a feasible alternative design that would have prevented harm caused by an unintended but reasonably foreseeable use of its product." *Perkins*, 83 Ohio St. 3d at 513. The plaintiffs have submitted evidence, in the form of the opinions of Neil Shirk, that an analog system was a feasible alternative design. That is sufficient to create a disputed issue of material fact under the risk-benefit analysis required by R.C. 2307.75. The court is not prepared to say that Motorola is immunized from liability by having supplied the system in response to Hamilton County's request for proposal, especially if there is evidence that the specified system is unsafe for the proposed use.

But the analysis doesn't end with the theoretical virtues and faults of digital and analog technologies. The Motorola digital trunk system is simply a network for communication devices. If the devices are equipped with features intended to compensate for the potential shortcomings of a digital network, then the system as a whole would not be defective by design. Motorola provided an emergency button on Capt. Broxterman's radio, allowing her to circumvent the design defect raised by plaintiffs' expert, much as a safety guard can prevent injuries for users of industrial equipment.

Without a functioning emergency button, there is plainly a disputed issue of material fact as to whether the risks of the system outweigh the benefits. *With* a functioning emergency button, however, Motorola could cure the only design flaw relevant to this case.

The portable radio

The Motorola XTS5000 radio used by Capt. Broxterman is capable of both digital and analog transmission. It was configured for digital transmission because it was operating on a digital system. The plaintiffs' only specific complaint about the radio is that the emergency button on top was small and recessed. According to Shirk that made it difficult to push while wearing a fireman's glove, which he considers a design defect. None of the firefighter witnesses who testified by way of deposition or affidavit indicated that the size, location, or configuration of the emergency button was a problem. To the contrary, Motorola offered the expert opinion of J. Gordon Routley, an experienced firefighter who uses the XTS5000 on a regular basis. He described it as "state of the art" technology for use while wearing firefighting gloves.

> The emergency button can also be activated while wearing firefighting gloves. The design requirements for an emergency button require that it must be relatively easy to locate and activate when needed, but it must also be sufficiently protected to prevent accidental activations. In my opinion the emergency button on the XTS5000 Model II radio meets these basic requirements. The user should be familiar with the radio and should practice locating and activating the emergency button while wearing gloves under zero visibility conditions.

In contrast to Routley, there are several problems with Shirk's testimony. First, the plaintiffs have offered no basis on which Shirk could be qualified as an expert on the physical design of radios for use by firefighters. His expertise is in the technical aspects of communication systems, not ergonomics. His opinion on the suitability of the emergency button design is no more helpful than the opinion of a layman.

Second, Shirk never tried to push the emergency button while wearing a fireman's glove, nor did he see anyone else try to do so. Even if he were qualified in ergonomics, there must be a foundation for his opinion. Testimony about a design

defect should be based upon firsthand knowledge or a study of how the defect impacts actual use in the field.

Finally, Shirk offers no feasible alternative design. Simply suggesting that the button is too small and recessed is not enough to prove the radio is defectively designed. It was designed that way for a reason: to avoid inadvertent activation and the communication problems that would cause.

A motion for summary judgment should be granted if the non-moving party fails to present *admissible* evidence showing the existence of a disputed issue of material fact. Civ.R. 56(C), (E); *Saum v. Kelly*, 3d Dist. No. 5-04-53, 2005 Ohio 2895, ¶ 20. Shirk's opinions about the design of the emergency button on the radio would not be admissible under Evid. R. 701 or 702. He has no specialized skill in the area of portable radio design sufficient to qualify him as an expert. "[A] witness may be qualified to testify as an expert on one subject but may not be qualified to testify as an expert on another related subject." *Campbell v. Daimler Group*, 115 Ohio App. 3d 783, 793, 686 N.E.2d 337 (10th Dist. 1996). Even if Shirk had been qualified in ergonomics or handheld radio design, there is no foundation for his testimony that the Motorola radio was defective. He never even attempted to operate it with a glove, thus his testimony cannot rebut that of an experienced firefighter who verified that the emergency button can be operated.

The plaintiffs have failed to meet their burden of producing admissible evidence to respond to Motorola's evidence that the design of the radio was non-defective. Thus the claims as to defects in the portable radio must be dismissed.

The question of causation

With no admissible evidence of a defect in the portable radio, the plaintiffs must explain how the failure of the digital communications system itself could be the proximate cause of Capt. Broxterman's death. The emergency button was an integral part of the design of the system as a whole, providing a means for the speaker to obtain priority. The rejection of Capt. Broxterman's attempted "Mayday" transmissions becomes irrelevant if she had a means to override the one-at-a-time features of a digital network.

But even assuming defects in both the digital trunk system and the radio, the plaintiffs must prove that the defects were a proximate cause of Capt. Broxterman's death. "While proximate cause is often a jury question, summary judgment is proper on this issue when [plaintiff] has failed to meet his burden to produce evidence to challenge unfavorable evidence already in the record." *Vermett v. Fred Christen & Sons Co.*, 138 Ohio App.3d 586, 612, 741 N.E.2d 954 (2000). *Accord Gay v. O.F. Mossberg & Sons, Inc.*, 11th Dist. No. 2008-P-0006, 2009-Ohio-2954, ¶ 129. Some of what happened in the Squirrelsnest fire will remain a mystery, but that does not relieve plaintiffs of their burden to prove that the Motorola products were a proximate cause of Capt. Broxterman's death. The undisputed evidence shows that the plaintiffs could not meet that burden.

The most favorable inference for the plaintiffs is that the four rejections (bonks) experienced by Capt. Broxterman coincided with her efforts to call for Mayday. But that 27-second episode does not explain any of what happened next. Vadnais was able to transmit a call for water seventeen seconds after the radio log recorded the last rejection, indicating that an open line would was available if Capt. Broxterman had kept

trying. Yet she made no further calls, nor did she ask Vadnais to transmit a Mayday, activate his emergency button, help her or Schira out of the house, or leave and bring more help.

Her problems with the radio also do not explain why she didn't take the obvious route to safety. Shortly after the attack line charged, Capt. Broxterman grabbed Vadnais and told him to get out. He did. A minute later he went back in, on the assumption that Broxterman and Schira had changed course and were now fighting the fire. Conditions had deteriorated, but he was able to crawl down the basement steps and then back up and out. Vadnais's ability to exit, return to the basement, and re-exit through the front door shows that an unimpeded escape path was available.

For reasons that will never be known Capt. Broxterman didn't take the obvious route with Vadnais, following the hose to safety in accordance with standard protocol. It wasn't because she was immobilized; Vadnais thought she was still capable of fighting the fire when he left the first time. She made it to the site of the collapse, which is roughly the same distance as to the front entrance. Once Capt. Broxterman fell into the basement, the communication equipment could not have saved her. She fell into conditions repeatedly described as "unsurvivable" by experts whose testimony remains unrebutted. Even if she could have radioed for help, the fire would have prevented anyone from reaching her. The plaintiffs have offered no evidence that there was any hope of rescue after the collapse, no matter what message could have been sent.

The jury could only speculate as to the reasons why Capt. Broxterman didn't leave at the same time she told Vadnais to go. Perhaps Schira wandered off course and she followed. Perhaps she heard command's message to re-deploy to the rear or saw light through the family room doors, and thought she was taking the quickest route to

safety. Perhaps after telling Vadnais to leave she was suddenly overcome by conditions and became disoriented. What is undisputed, however, is that she had a safe escape route and didn't take it, even after she thought conditions warranted a Mayday and ordered Vadnais to get out.

"Speculation and innuendo are not evidence." *Williams v. Ormsby*, 131 Ohio St. 3d 427, 2012-Ohio-690, 966 N.E.2d 255, ¶ 11. "[A] jury verdict may not be based upon mere speculation or conjecture." *Westinghouse Electric Corp. v. Dolly Madison Leasing & Furniture Corp.*, 42 Ohio St. 2d 122, 126, 326 N.E.2d 651 (1975).

> [W]here the facts from which an inference of probable proximate cause must be drawn are such that it is as reasonable to infer other causes, plaintiff has failed to supply proof of probable cause. Where plaintiff has only presented proof that the actual cause was one of a number of possibilities, to enable an inference to be drawn that any particular cause is probable, the other causes must be eliminated.

Id. at 127. If the evidence is in a state of equipoise, causation becomes "a matter of mere speculation and not a triable issue." *Lonaker v. Cincinnati Youth Sports*, 1st Dist. No. C-030672, 2004-Ohio-5993, ¶ 15.

The evidence here is not in equipoise, even when viewed in the light most favorable to the plaintiffs. The radio logs and the testimony of firefighter Vadnais support the conclusions of the Colerain Township Fire Department and NIOSH, neither of which attributed the tragedy to defects or failures of the communication system itself. The Colerain report found the following to have "*directly* contributed to the deaths of Captain Broxterman and Firefighter Schira:"

- A delayed arrival at the incident scene that allowed the fire to progress significantly;
- A failure to adhere to fundamental firefighting practices; and
- A failure to abide by fundamental firefighter self-rescue and survival concepts.

(Emphasis in original.) Of the eleven additional factors cited in the Executive Summary of the report, only two involved communication issues—and both cite the failure to properly use the system, not failures of the system or the equipment.

Viewed in the light most favorable to the plaintiffs the evidence is insufficient to raise a disputed issue of material fact that the performance of the radio or the digital system proximately caused Capt. Broxterman's death.

CONCLUSION

The record, when viewed in the light most favorable to the plaintiffs, does not create a disputed issue of material fact. Defendants Morning Pride and Motorola are entitled to judgment as a matter of law, and their motions are accordingly GRANTED.

Carl Stich, Judge