

Against Fire Deaths, Inc.

Our Goal: Reduce Fire Deaths In the U.S. By 90%

June 4, 1992

George Miller
President & Chief Executive Off.
National Fire Protection Association
1 Batterymarch Park
Quincy, MA 02269-9101

Subject: THE SMOKE DETECTOR FRAUD

Dear Mr. Miller:

Prior to your being named president, I had correspondence with Mr. Anthony O'Neil relative to the fact that the ion type smoke detector does not perform consistent with the original claims of the manufacturers. Many people have burned to death due to the device not performing.

Mr. O'Neil replied and sent me a copy of a memo from Messrs. Cote and Hall, dated April 15, 1992 to A. R. O'Neil.

This memo by Cote and Hall was an attempt to rebut the points I made in my correspondence with Mr. O'Neil.

I have listed the pertinent paragraphs of this April 15 memo to Mr. O'Neil, and have numbered them 1 through 5 as shown on the enclosed copy. Now I will reply to each of the points made by Messrs. Cote and Hall.

Patton Comments Regarding Paragraph 1:

Cote and Hall claim that I ignored many other test programs, beside the Indiana Dunes Tests, that had been conducted around the world, and that these other tests had also confirmed the essential conclusions... meaning that heat detectors did not perform satisfactory and ion detectors did perform satisfactorily during the "many" tests.

The reality is there has been virtually no honest and competent testing of the devices. The Dunes Tests were a flat out fraud, and I have so stated, and I have produced an analysis to prove it.

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The Cal Chiefs Test preliminary conclusions were plugged into the FTC hearings. But, a non-official copy of that test program had been used. The preliminary report (that went to the FTC) was later rebutted by the Cal Chiefs. Then, the test report was buried, never to surface again. Presumably the Cal Chiefs will not acknowledge this test report because the early copy also had repeated the falsifications associated with the Dunes Testing.

For two years I have been attempting to get Don Manning, fire Chief of the L.A. fire department, to either admit that the test program was not a valid one, and that no official report had ever been prepared, or else provide me with a copy of the report including especially the basic data to be analyzed.

Chief Manning will not reply to my letters, and he will not answer my phone calls. So much for that test program.

The Minneapolis Tests, which was "assisted" by Mr. Gerald Rork, an employee of a smoke detector manufacturer (plus other reps of the smoke detector industry), was a similarly flawed research program.

Someone who knew how to make a fire so as to operate a smoke detector and not operate a heat detector undoubtedly provided technical advice to the fire department.

Enclosed is a brief analysis of that test program, describing the brilliantly created fire.

Incidentally the conclusion of the report included a claim that heat detectors would not have worked, although the researchers did not even bother to install a heat detector.

Patton Comments Regarding Paragraph 2:

No. 1, the manufacturers claimed, in advertisements within the NFPA Fire Journal, that the ion type smoke detector would not only detect a smoldering fire, but would do this so rapidly that the smoke would not even be seen.

No. 2, these people lied about the performance of the ion detector, it does not reliably detect a smoldering fire.

When a smoldering fire occurs within a home

protected with ion detectors, that fire can produce serious and sometimes deadly levels of carbon monoxide, plus obscuration in excess of 30%.

This has been proven by actual research tests. These life threatening conditions can evolve over a period of one hour, sometimes two hours or more, with the ion detector not operating.

Now, having so stated, I also charge this. That during the Dunes Tests, the ion detectors were set very sensitive, to operate at 1% or 2% obscuration levels; and that when tested against smoldering fires, the average time for the ion detector to operate was approximately one hour.

So, the manufacturers claimed instantaneous detection of a smoldering fire, the Dunes researchers discovered that brand new ion detectors, when set very sensitive, required an hour or more to operate, and sometimes did not operate at all; and yet these researchers failed to report to the public this dramatic difference between the claims and the reality.

Should these Dunes researchers be held accountable for the deaths over these many years, when ion detectors have failed to operate? I think so.

This is an extremely serious charge. I state that this device has been installed within 80 million homes on the pretext that it will detect a smoldering type of fire incredibly fast. And I state that it has not been detecting that type of fire. Thousands of people have so far burned to death because the detector did not perform as it was claimed it would perform.

I see nothing humorous about this situation whatsoever; and I believe that those who contrive to deny the public the truth must also be judged accordingly.

Patton Comments Regarding Paragraph 3:

In this paragraph Messrs. Cote and Hall indicate that it is not so important that the detector performs to a certain criteria, as may have been indicated by the manufacturers, but rather that the detector will actually operate in time to save lives.

First, I disagree with the premise of these two men.

In my judgement, when the manufacturer of a

product provides FALSE information about that product, that is a SERIOUS matter, regardless of whether the device works or not.

So, even if the device is working, a crime has still been committed, a crime of misrepresentation.

But these men are doubly wrong because when that device is NOT performing as advertised, it is also NOT saving lives.

We have quotes from fire officials and the U.S. Fire Administration and elsewhere, going back more than 10 years, confirming these devices have failed to operate 30%, 50% and even 80% of the time.

This has been known and discussed openly, within the fire protection community. But, this information has been kept an in house secret, with the general public NOT made aware of the failures and the underlying causes of the deaths.

Every day of the week fire reports are being issued concerning fires where the detectors did not perform, and where people burned to death because of it.

So much for the smoldering fire. Now let's discuss the flaming fire.

Relative to the flaming fire, all three detectors, (the photoelectric detector, the ionization detector, and the heat detector) will perform. But, there are other factors to consider, including the fact that the sensitivity of the ion detector rapidly changes with time. It sometimes goes into a "too sensitive" condition and false alarms. Other times goes into a silent condition. Then it will simply sit there silent as the fire grows and kills.

The photoelectric detector generally is more reliable and less subject to erratic performance than the ion detector. However, sensitivity of the photoelectric detector also may change with time. Fortunately, the photoelectric detector will usually fail on the safe side, meaning that it will fail through excessive alarming, rather than simply not alarming when needed.

The heat detector is warning of far the most reliable and long lasting device for the fast spreading flaming fire. It is only through the most devious and

most dishonest testing (claimed research) that the heat detector has been "proven" not valuable for protecting life.

Messrs. Cote and Hall state that the heat detectors in general responded during the testing so slowly that they failed to provide the needed escape time, or failed to respond at all. Of course, that is the conclusion that the researchers promoted through testing methods. For example, during the Dunes Testing, researchers took the heat detectors out of the fire room before they lit the fires. Of course, under these circumstances the heat detector "failed" to warn of the fire. But I say this performance of the heat detector (not operating when not installed) was completely understandable. The performance of the researchers was not.

When we examined those Dunes Tests cases where supposedly the heat detector did not operate satisfactorily, in every case I found that the fault was attributable to researchers (who deliberately rigged the testing so as to provide that result).

I've been asking the fire chiefs, the Federal Fire Administration, the National Institute of Standards and Technology, the NFPA and the others for more than one year now, to provide to me any test program where an honest tests had been conducted where the heat detector had failed to perform. I'm still waiting.

If Messrs. Cote and Hall can find such reports, and provide them to me, I would be most pleased to receive them. Unless they can provide me with such reports I suggest they cease claiming that such honest reports and tests exist.

Patton Comments Regarding Paragraph 4:

Many people who "rebut" the points I make, do so by restating what I am saying, and doing it in a way revised as to make my statements inaccurate. Then they rebut my (revised) statements.

Let me make clear what I am stating. I am stating that during the Dunes Testing there were essentially three types of fires produced by the researchers.

The first type fire produced was a purely smoldering fire. This type fire did not produce heat. Therefore, the heat detector flat out could not operate.

Claiming that the heat detector failed to perform when tested against smoldering fires, is a deception.

The second type of fire which the Dunes researchers constructed was a very low heat producing, flaming type fire. When one read the narrative description of the fire, it would be assumed that an intense flaming fire had been created.

The reality was, however, that many of these fires involved one piece of cotton upholstered furniture. While technically there was flaming fire, actually the fire burrowed into the padding, and behaved very similar to a smoldering fire.

When such "low heat-but flaming" fires did not operate a heat detector, it was because the amount of heat produced was insignificant. The temperature at the ceiling did not rise to the operating temperature of the detector.

Thus, the great majority of the fires that were set during the Dunes Testing were:

- a) Smoldering fires.
- b) Flaming, but very low heat producing, fires that failed to significantly raise the temperature at the ceiling.

Of course, some of these fires, long after producing much smoke and much carbon monoxide, eventually grew to become more vociferous fires; a half hour or an hour or more into the tests. In such instances the heat detector was tested against a long delayed - hot fire: that was devious and unfair testing because a combination of detectors is required for fully adequate protection in the home.

Logic dictates that the best protection against fire in a home would consist of two types of detectors:

- a) Photoelectric detector to most quickly detect the "no heat" or "very low heat" smokey fire.
- b) Very reliable heat detectors, for sure detection of that extremely dangerous fire-the fast spreading flaming fire.

During the second series of tests, there were six tests where the temperature actually exceeded 200° degrees. These were fires that were at least beginning to become the fast flaming fire that so often kills in the home. In only one of those six cases, did a heat detector within the fire room actually operate. The reason why there were five "failures," or "designated failures," was that the heat detectors were removed from the fire room before the fire was lit.

When we add all of the above up, and properly analyzed the data, we find that in every instance where a heat detector was installed in the fire room, and the temperature at the ceiling quickly exceeded the operating temperature of the heat detector, the heat detector performed fine.

Patton Comments Regarding Paragraph 5:

Messrs. Cote and Hall conclude that I am in error in referencing the fire sprinkler system performance data. Nonsense! If we look at Australia, where the very best records were maintained, two deaths occurred in 100 years of fire experience involving sprinklers in residential type properties. Two fire deaths per 100 years is a remarkably fine performance. Anyone who disparages such performance is either out of touch with reality, or working on an agenda.

The claim that the sprinkler head performance is not pertinent to heat detector performance is logic that borders on the ludicrous.

During the 1960s and 1970s, time and time again, I heard the so-called fire experts claim that sprinklers would not save lives in high rise buildings, hospitals, places of assembly, schools, etc. etc. These "experts" repeatedly claimed that there was no point putting the sprinkler systems in buildings, because the people would be dead before the sprinkler heads opened.

I know Anthony O'Neil and his experiences well enough to know that Anthony O'Neil knows that this was the case. The two of us personally discussed this problem of "experts" claiming sprinklers would not operate in time to save lives.

It takes perhaps 10 to 15 seconds to get out of a home. In the event the heat detector operates before the people are dead (which is virtually always the case), then the probability that death would occur during that very short time needed to exit, is

stretching it.

For decades the fire sprinkler head was so designed that there was normally a very long delay before operating. This was due to the great mass of fusible element.

The old "standard" sprinkler head was incredibly slow, compared to the modern heat detector. Yet, this slow acting sprinkler produced a life safety record that was extremely close to perfect.

In short, the claim that a heat detector will not save life in a home is an intentionally created and very deadly lie.

As for the claim that I have distorted the fire death statistics, again I send to you the fire loss statistics produced the Consumer Product Safety Commission, namely by Ms. Beatrice Hall, as published in the NFPA Fire Journal. I see nothing in these statistics to indicate a satisfactory performance for the ionization detector.

Let me also make this observation. A little over a year ago Richard Bukowski, of the Dunes Tests notoriety, appeared on the First Edition television program claiming that heat detectors would not protect life in the home, and therefore no one should purchase such detectors. Mr. Bukowski also claimed that one smoke detector at each floor level would properly and adequately protect human life in a dwelling.

Interestingly, the case cited for the heat detector failure (First Edition T.V. Program) had occurred nine years prior to the program. Why did Bukowski have to go back nine years to find a heat detector failure?

I investigated that situation. The information I received was that the son returned very late the night of the fire, and that the parents did not even know he was in the home. I was told that when his body was found it had more than a 0.1 alcohol content. In short, he was asleep in bed, and drunk when the fire occurred, but his parents did not even know he was in the house.

We do know the heat detector operated. We do know that both parents escaped unharmed.

Well, perhaps it made sense, to bereaved parents, to pick up on the lies being told about the performance of heat detectors, and initiate a law suit. Of course, having been fed the carefully created lies relevant the heat detector, they revealed appropriate anger on the TV program.

My observation is that both of those people (who were bad mouthing the heat detector) probably would not be alive to do it, if that heat detector had not performed.

In contrast to having to go back nine long years to find an alleged heat detector failure; I submit that we could probably go out and find up to 3000 instances of fire deaths during the year 1991, where ionization type smoke detectors failed to alarm in time to allow the family to escape.

So we must ask ourselves why Richard Bukowski is digging up a nine year old nebulous case of a heat detector failing to operate, and seemingly deliberately overlooking the fact that thousands of smoke detector failures occurred just last year. Why does an engineer create such falsifications, and pursue such devious tactics?

Could it be that Richard Bukowski, in connection with his performance during the Dunes Tests, and in connection with his testimony before the Federal Trade Commission, put himself into a very sticky situation.

Perhaps Mr. Bukowski is now in a position where he could be held accountable for thousands of deaths that have occurred in American dwellings, when detectors failed to operate. If we assume this to be the case, then it would become clear as to why he went on the First Edition television program to blast away at a supposed heat detector failure nine years prior. And, it could explain why he failed to mention to the public that the ion detectors are failing faster than rabbits are multiplying.

I believe that this letter I am writing to you spells out things very clearly. I stand by everything I say. If Ms. Cote and Hall can find any honest way to rebut my charges, let them try.

In event you believe that this issue needs public airing, and that the value of human life far outweighs any political or business considerations, then I would suggest a public airing of these issues, possibly over a nationally televised program, which could readily be arranged by the NFPA and the Federal Fire Administration.

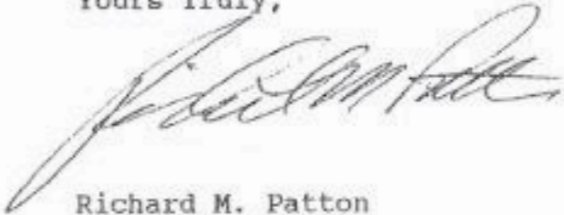
If Bukowski is given an opportunity to use your magazine to spread his "story" then I request an equal opportunity.

I will more than pleased to present the issues as stated above, and I will debate any and all engineers and scientists, or promoters as may wish to attempt to rebut my findings. I will welcome a public forum involving Richard Bukowski, Gerald Rork, Messrs. Cote and Hall, Olin Greene; whoever may have the courage to debate.

Let the issues be discussed. The public will be able to identify the truth.

I'll leave you with one final thought. To conceal the issue, to avoid the debate, to keep the public in the dark, will cost many more lives.

Yours Truly,

A handwritten signature in cursive script, appearing to read "Richard M. Patton".

Richard M. Patton
President
Registered Fire Protection Engineer

Enc. Cote/Hall memo

RMP/emc

MEMORANDUM

TO: A.R. O'Neill

FROM: A.E. Cote, Chief Engineer
John Hall, Assistant Vice President, Fire Analysis & Research

DATE: April 15, 1992

SUBJECT: Analysis of March 30 Material Sent by Richard Patton

We have reviewed Mr. Patton's March 30 letter and report in detail and have a number of questions about both the methodology of the analysis and the associated conclusions.

Here are some examples of areas where we had concerns:

- 1 • Patton's focus on the Indiana Dunes tests ignores the fact that many other test series have been conducted around the world to examine home fire detector performance, and they have consistently reconfirmed the essential conclusions.
- 2 • Patton's concern over the degree of emphasis on smoldering fires is misplaced, because results are available separately for many different kinds of fires, and in almost all kinds of fires -- smoldering or flaming -- heat detectors in the fire room have consistently not reacted as quickly as smoke detectors placed according to the every-level protocol.
- 3 • The report characterizes heat detector performance with phrases such as "operated properly" or "performed exactly as it was designed to perform." Such judgments leave the critical question unanswered, i.e., whether a detector will react quickly enough to provide time for escape. Time for escape may not always be sensitive to response time differences between types of detectors; that question needs to be addressed directly for each type of fire.

For example, in a fast flaming fire, tests show all detectors react within a compressed period of time, which means there is little or no practical significance to which one reacts first. People close to the point of origin of such a fast-growing fire probably will receive too little warning time from any detector. People in other rooms may have relatively little time to react, too, to such a fast-growing fire, and the adequacy of the time they have is not likely to depend on small differences in detector response times.

By contrast, in many of the fires tested, heat detectors not only responded more slowly than smoke detectors but also responded too slowly to provide needed escape time or failed to respond at all.

- 4 • In a number of places, Patton's characterization of the Indiana Dunes report is inaccurate on such details as whether certain types of detectors were present, whether they operated, when they operated, or the tenability of conditions in particular rooms. For example, he characterizes a number of the early tests as having been conducted with no heat detectors present when they were clearly labeled as using thermocouples as surrogates for heat detectors, a short-cut abandoned in the later tests but one that would be expected to produce results that would err, if at all, in a direction favorable to heat detectors.
5. • There are several instances where the report has made inaccurate inferences from sources of data other than detector lab tests. For example, Patton cites sprinkler performance as evidence of the life-saving value of heat detectors, but the fact that sprinklers automatically provide a suppressant agent is a critical difference that renders such a comparison invalid. Patton also argues that the lack of a decline in U.S. fire deaths from 1980 to 1988 is evidence of a lack of smoke detector impact, but in fact there has been a large decline in fire deaths from the mid-1970s to the present, which is the full period since detector introduction.