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THE ETHICS CODE LOOPHOLE

By Richard Schulte

“ . . .fire protection engineers must. . .perform under a standard of professional behavior which requires adherence to the highest principles of ethical conduct. . . ”

Preamble, SFPE Canon of Ethics

“Fire protection engineers shall be honest in presenting their professional qualifications, data and estimates, professional opinions and conclusions, and in their public statements dealing with professional matters.” Canon 6, SFPE Canon of Ethics

“Fire protection engineers having knowledge of any alleged violation of these Canons shall cooperate with the proper authorities in furnishing such information or assistance as may be required.” Canon 12, SFPE Canon of Ethics.

“Fire protection engineers shall accept responsibility for their actions, seek, accept, and offer honest criticism of work. . . ” Canon 13, SFPE Canon of Ethics

In accordance with the requirements contained in Canon 12 of the Canon of Ethics adopted by the Society of Fire Protection Engineers (SFPE), information pertaining to the potential violation of the code of ethics by Dr. Craig Beyler was submitted to the Society on August 20, 2009. The information submitted included contradictory statements made by Dr. Beyler regarding the “validation” of the capability of a fire model to reliably and accurately predict sprinkler activation times and the effect of sprinkler spray discharge on a fire. The contradictory statements were both made in February 1999.

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In a paper titled *“Interaction of Sprinklers With Smoke and Heat Vents”* dated February 1999, Dr. Beyler, and his co-author, Leonard Y. Cooper, stated the following:

“While there have been many attempts to model all or part of the interactions of sprinklers and vents, the issues are more complex than can be dealt with using even the most sophisticated modeling methods available today [1999]. The most clear indication of this is the recent NFPRF research project. While modeling of the fluid mechanical aspects of the problem were quite successful in predicting aspects of sprinkler activation in the first heptane spray fire series, the model was unable to predict the corresponding results in the rack storage tests beyond first sprinkler activation. . .” (Page 18)

While writing the paper referred to above, Dr. Beyler was also engaged as an expert witness for the plaintiffs referred to as *lan David McAuslin, et al v. Grinnell Corporation, et al*. Dr. Beyler’s expert report in this litigation, dated February 5, 1999, included the following excerpts:

“In a recent study sponsored by the NFPA Research Foundation, LES3D was used to predict the interaction between sprinklers and heptane spray fires. The sprinkler activation times predicted by LES3D compared well against the heptane spray fire experiments done at Underwriters Laboratories for the same study. First ring sprinkler activation times were predicted to within about 15 percent, and second ring sprinklers activation times were predicted to within about 25 percent. Predictions of the total number of sprinklers activated by the spray fires were generally very good with most predictions within 25 percent with greater deviations in three of the 21 tests.”

“. . .the model was unable to predict the corresponding results in the rack storage tests beyond first sprinkler activation. . .”

“The standard clearance fire caused activation of four sprinklers over a period of 100 to 350 seconds. The McFrugal’s NODC clearance resulted in a fire that activated nearly 70 sprinklers during the simulation and clearly did not control the fire.”

“The graph for the 50 feet clearance indicates that the first operating sprinkler will activate in approximately 215 seconds and that the fire will not be controlled and will continue to grow.”

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Dr. Beyler’s sworn testimony in the *McAuslin v. Grinnell Corporation* litigation which occurred within a few months of the publication of his expert report included the following statements:

“The computational domain does not include the racks themselves. That does not mean that we aren’t predicting or otherwise know what’s going on within the racks, but that is done as a sub-model as opposed to being a part of the - - fluid mechanics domain. What has been done is the fluid mechanics domain starts at the top of the racks up to the ceiling, of course. We predict using the LES model how much water arrives at the top of the racks and we use other models to establish, one, how the fire grows within the racks, and two, what the effect of that water is. So they are - - they are modeled, but they are not modeled in the fluid dynamical part of the LES 3D.”

“Those sub-models are a fire growth model that’s described subsequently in the report as well as the effect of water is. There’s a sub-model for that that we added for that. Both of those are - - We’ll talk about them in detail, I’m sure. Both of those come out of work done at Factory Mutual.”

“I mean the substance of the meaty, you know, the meaty part, the central portion of this, our report, are the modifications that we made to LES to allow the modeling of the effect of sprinkler sprays on the burning of the commodities. We added that, we used that.”

“You used the word “proper” and I’m not sure I can define for you what “proper” is. That is, I’m not sure I could give you a definition of “proper” versus “improper” validation. Not a word I would have picked, but, you know, you did.”

“And so I mean you have the question there of does the source code do what you want it to do, and that’s error checking, which was done. And then there’s the question of given the - - you know, a correct implementation of the model, how well does that model do relative to data. Those comparisons of model to available experimental data are included in the references we cited, which I believe are all exhibits to my deposition. I mean they exist.”

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Clearly, Dr. Beyler contradicted his statement about the capabilities of the fire models to predict sprinkler activation times in his February 1999 paper in his February 5, 1999 expert report and in his sworn testimony a few months later. Also, just as clearly, Dr. Beyler opined that the fire model used in his work as a plaintiffs expert was capable of predicting the effects of sprinkler spray discharge on a fire.

Do the fire models in use today have the capability to reliably and accurately predict sprinkler activation times and the effects of sprinkler discharge on a fire in 2010? Given that no one in the fire protection field, including Dr. Beyler's colleagues at Hughes Associates, Inc., Phil DiNenno and Dr. Jason Floyd, have come to his defense, apparently the answer to that question is a definitive no. If the answer to that question is no in 2010, then it is obvious that Dr. Beyler's models would have been incapable of doing that in 1999.

Given that no one in the fire protection field, including Dr. Beyler's colleagues at Hughes Associates, Inc., Phil DiNenno and Dr. Jason Floyd, have come to his defense, apparently the answer to that question is a definitive no.

It's been almost a year now since the Society of Fire Protection Engineers were informed in writing of Dr. Beyler's potential violations of the SFPE Canon of Ethics. The SFPE has yet to even acknowledge receipt of the information on Dr. Beyler's potential violations of the ethics code. If the SFPE has yet to acknowledge the receipt of this information, certainly the SFPE has not requested copies of Dr. Beyler's expert report and his sworn testimony in the *McAuslin v. Grinnell Corporation* litigation. (Copies of Dr. Beyler's expert report and depositions were offered to the SFPE by this writer.)

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While the SFPE Canon of Ethics gives the appearance that the SFPE supports ethical conduct in the field of fire protection engineering, there is one major "loophole" in the Canon-a failure to enforce the ethics code in the face of what appears to be overwhelming evidence of a violation. Of course, if the SFPE does not enforce its Canon of Ethics, particularly where it involves a leading figure in the Society, this essentially means that the Canon of Ethics is meaningless.

"Fire protection engineers shall accept responsibility for their actions, seek, accept, and offer honest criticism of work. . ." Canon 13, SFPE Canon of Ethics

To my knowledge, Dr. Beyler has yet to publicly defend his statements made in 1999. Given that, it is my opinion that it is reasonable to assume that Beyler has no defense in this matter. Nor to my knowledge has Beyler yet to accept responsibility for his actions in the *McAuslin v. Grinnell Corporation* litigation as required in Canon 13.

The consequences of Beyler's action include the ill health of one of the principal witnesses in the litigation, Charlie Martin, the manager of the Grinnell Office in New Orleans. Dr. Beyler specifically "pointed the finger" at Mr. Martin and stated that the sprinkler system which Martin designed for the McFugal's Warehouse was defective. Charlie Martin is no longer with us, perhaps, in part, due to Beyler's allegations.

"You've done enough. Have you no sense of decency, sir, at long last? Have you left no sense of decency?"

Joseph Welch, June 9, 1954

To quote lead counsel for the Army, Joseph Welch, on June 9, 1954 in the United States Army/McCarthy hearings conducted by the United States Senate, "*You've done enough. Have you no sense of decency, sir, at long last? Have you left no sense of decency?*" This quote pretty well sums up Dr. Beyler's accusation pertaining to Charlie Martin supported by Beyler's misuse of fire modeling.

Beyler's misuse of fire modeling in the *McAuslin v. Grinnell Corporation* was not just an innocent act involving a lawsuit against a large corporation, but likely destroyed Charlie Martin's health. Now the question is whether or not the SFPE will have the principle to apply its ethics code to Dr. Beyler.

To paraphrase Thomas Jefferson, all it takes for unethical behavior "*to gain a foothold is for people of good conscience to remain silent.*" Will the SFPE "*remain silent*" in this matter or will the SFPE act?

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