

December 7, 2000

MEMORANDUM TO: Eric Weiss, Section Chief  
Fire Protection Engineering and Special Project Section  
Plant Systems Branch  
Division of Systems Safety and Analysis  
Office of Nuclear Reactor Regulation

FROM: Mark Henry Salley, Fire Protection Engineer **/RA/**  
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SUBJECT: NRC MEETING WITH ATF TO DISCUSS THE ATF APPROACH TO  
USING FIRE MODELS IN FIELD APPLICATIONS

On Tuesday, November 28, 2000, a meeting was held between fire protection personal from the NRC and the Bureau of Alcohol, Tobacco & Firearms (ATF), at the ATF Washington D.C. offices. The meeting was held at the request of the NRC to discuss how the ATF was implementing fire modeling in field operations.

The NRC is currently evaluating the available prospects in using fire models to assist the Signification Determination Process (SDP). Mr. Gerald Haynes, Fire Protection Engineer (ATF) gave the ATF presentation with supporting field agents from the Philadelphia and Chicago ATF offices. The ATF has approximately 100 field agents across the country that serve a Certified Fire Investigators (CFI). Over the past 10 years, the ATF has developed a series of simple hand calculations to assist their field agents in fire modeling. These fire model correlations are available to the CFI on programmable hand calculators and spread sheets on lap top computers. The ATF also discussed the details of their fire training program. They send each CFI candidate through a 2-year training program which includes classes with University of Maryland Professors, and a minimum of 100 actual fire inspections. Upon successful completion of the training, each CFI must annually perform at least 15 fire inspections and attend 48 hours of out-of-bureau fire science related training. The ATF has a serious commitment to this program.

The presentation was well received by the members of the NRC. NRC personnel in attendance were Eric Weiss, Mark Salley, Naeem Iqbal, and Hugh Woods. Mr. Haynes provided a copy of their hand calculation spread sheets (on Excel) used by the field CFIs.

On a secondary note, the ATF representatives requested that the NRC may wish to have a Memorandum of Understanding (MOU) between the NRC and ATF for services they could provide in the event of a serious fire at a commercial nuclear power plant (NPP). After the reactor is in a safe, controlled condition an Augmented Inspection Team (AIT) will typically investigate the event. For example, the NRC formed a Special Review Group in 1975 to

investigate the Browns Ferry fire (NUREG-0050). Having a MOU in place with the ATF would allow the NRC to quickly mobilize the ATF resources in support of the expected NRC AIT. A MOU, in place before the fact, would also delineate each agencies responsibility.

The ATF is also in the process of constructing a full fire research laboratory in Greenbelt, MD. The laboratory will be staffed with full time fire researchers, some formally employed at the Natational Institute of Standards and Technology, (NIST). Access to this ATF resource could also prove to be valuable to the NRC's mission.

If you require any additional information, please contact me.

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