Michael J. Cates, CFPS

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Mr. Michael Cates began his Department of Energy (DOE) career in 1993 as a Federal Contractor for the Idaho Operations Office (ID) – three years after earning a degree in Fire Safety and Technology from Oklahoma State University. Since then, Mr. Cates served as a fire protection engineer for various DOE-ID facilities and is presently the fire protection engineer for the Research & Education Complex located in Idaho Falls, ID. Despite over 22 years of active engagement in the DOE fire protection community; he is being awarded today for his actions that took place nearly 17 years ago.

On July 28, 1998 Mr. Cates was working for the Test Reactor Area (TRA) – a campus of active and inactive research reactors facilities located on the 890-square-mile Idaho National Laboratory (INL) when a significant event took place that endangered the lives of 13 employees which resulted in a fatality and a number of serious injuries. At the time, INL was undergoing a complete fire alarm revision and TRA had just had that work completed. On this day, preventative maintenance work was being planned for Building 648 which houses electrical equipment for the TRA and another, inactive, reactor adjacent to the Building called the Engineering Test Reactor. Building 648 was protected throughout with an automatic carbon dioxide (CO_2) fire suppression system that was actuated off this new fire alarm equipment. Because of the hazards associated with CO_2, Mr. Cates recommended that the fire alarm panel be disengaged from the CO_2 firing mechanism (which at the time consisted of an analog releasing circuit that was exactly the same as the panel's notification circuit). It was not known at the time that this type of releasing circuit was prone to spurious signals under certain situations.

Because this specific preventative maintenance work in Building 648 was also intended as instructional, Mr. Cates decided to participate in the activity and accompanied the 12 other employees to the facility where he electronically disengaged the CO_2 releasing circuit. When the switchgear controlling power to the building and the fire alarm system was disengaged, the transition to emergency power back-up on the alarm panel malfunctioned and caused the CO_2 solenoids to trip and release agent into the occupied space without warning.

Upon initial CO_2 discharge, Mr. Cates immediately recognized what was taking place and began to effect evacuation of the other 12 occupants, some of which were rendered unconscious by the effects of this extinguishing agent. On numerous occasions, Mr. Cates reentered this inerted facility to save the lives of his fellow workers; however one fatality and several severe injuries occurred from this event. In October 1998, Secretary Bill Richardson recognized Mr. Cates' heroic actions that day.

But that's not the end to the story. Successive editions to the National Fire Protection Association's *Standard on Carbon Dioxide Extinguishing Systems*, NFPA 12, have been modified as a direct response to the hazards that workers in Building 648 were expose to, therefore creating safer work environments and property protection. Mr. Cates has continued to ensure that the lessons learned from that fateful day are not forgotten and has shared the lessons learned both outside of and within the DOE community.

The DOE Fire Safety Committee recognizes Mr. Cates' direct and indirect actions towards the protection of life and property both within and beyond the realm of DOE by presenting him the 2015 Walter W. Maybee Award.