



# NRC NEWS

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No: 23-014  
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March 1, 2023

## NRC's Nicholas Melly Honored as a 2023 Federal Engineer of the Year



Nicholas (Nick) Brian Melly P.E., a fire protection engineer who has headed breakthrough research and regulatory activities to advance the understanding of nuclear power plant fire safety, has been chosen as the NRC's Engineer of the Year and one of 10 finalists for the Federal Engineer of the Year award by the National Society of Professional Engineers. Melly received the honor during the NSPE's 44th annual ceremony.

Melly, who works in the NRC's Office of Nuclear Regulatory Research, is an internationally recognized fire safety expert with unique knowledge and skills. His work at the NRC has focused on researching High Energy Arcing Faults, a type of challenging fire event associated with catastrophic failures of high-voltage electrical systems. Initially, he identified key safety issues, knowledge gaps, and research needs. He then spearheaded a multi-year international research effort that leveraged the expertise and resources of 10 countries to better understand the risk posed by this phenomenon.

"We are pleased to honor Nick as our NRC Engineer of the Year and very happy that the NSPE recognized his important contributions by ranking him in the top 10 of federal engineers for 2023," said Raymond Furstenu, RES office director. "His work has made a tangible impact on the safety of nuclear power plants and sets the stage for future research and regulatory activities in this important area."

Melly, who holds a bachelor's degree in fire protection engineering from the University of Maryland, directed more than 50 complex, full-scale experiments using prototypical nuclear power plant equipment representing real-world configurations. His research has led to improved understanding of HEAF-induced electromagnetic phenomena, development of advanced hazard modeling and simulation techniques, identification of fire mitigation measures, and the issuance of guidance that advanced nuclear power plant safety.

Federal agencies employing at least 50 engineers may nominate candidates for the award. Twenty-three engineers from throughout the federal government were honored at the ceremony.