



# ISFI 2024

## ABSTRACT SAMPLE

International Symposium on Fire Investigation Science and Technology  
September 16-18, 2024

\*This is an actual accepted abstract from ISFI 2014, contact information has been changed

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Working Title:

INVESTIGATION OF THE EXPLOSION AT THE CONAGRA SLIM JIM PLANT

Abstract:

The explosion that occurred in the ConAgra Slim Jim manufacturing facility in Garner, NC, on June 9, 2009, resulted in four fatalities, several injuries to plant personnel, and significant property damage and business interruption. The explosion was investigated by multiple entities, including the Bureau of Alcohol, Tobacco and Fire Arms; Chemical Safety Board; Occupational Safety and Health Administration; and a number of private sector investigators working on behalf of the various plaintiffs and defendants associated with the law suits filed subsequent to the incident. Several competing causation theories were developed by the multiple entities through their independent investigations.

This paper discusses the layout of the Slim Jim plant; the timeline of events leading up to the explosion; the explosion and resulting property damage; the investigation process into the cause of the explosion; and the competing theories of causation. Detailed analyses into the competing theories of causation are presented. The analyses include a summary of the physical and testimonial evidence, engineering calculations, and explosion modeling using the computational fluid dynamics (CFD) tool FLACS (flame acceleration software). Finally, a side-by-side comparison of the results of the engineering calculations and CFD-tool FLACS will be presented.





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## ABSTRACT TERMS AND CONDITIONS

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### Abstract Submission Terms & Conditions

Abstracts must be submitted by April 1, 2023 although early submission is encouraged.  
By submitting an abstract, you agree to the following:

- Abstract should not exceed 750 words.
- The abstract submitted must be original work.
- The author is responsible for the accuracy of the abstract.
- The acceptance of an abstract for the Symposium does not imply provision of travel, accommodation or registration for the Symposium, nor any other costs associated with preparation or presentation of the abstract, or any costs associated with attendance at the Symposium.
- All authors presenting at the Symposium must register and pay to attend.
- You give us permission to publish your abstract (and subsequent paper, if accepted) on the NAFI website and in the 2024 ISFI Proceedings.
- You give us permission to film or photograph your presentation and participation at the Symposium.
- You confirm that the submission has been approved by all authors.
- All abstracts must be submitted in English and via email.
- At least one author will be available to present the abstract if selected for the program. The authors will immediately notify ISFI 2024 if they are unable to present an abstract or if the presenting author is changed.
- If accepted, your final paper & program registration will be submitted in the proper format and by the August 1, 2024 deadline.
- Papers will not be published without a speaker registration.

Submit by email, or mail to:

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