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Goodson

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(54) **APPARATUS AND METHOD FOR
DETECTION AND CESSATION OF
UNINTENDED GAS FLOW**

(56) **References Cited**

(75) Inventor: **Mark E. Goodson**, Corinth, TX (US)
(73) Assignee: **Goodson Holdings, LLC**, Denton, TX (US)
(*) Notice: Subject to any disclaimer, the term of this patent is extended or adjusted under 35 U.S.C. 154(b) by 500 days.
This patent is subject to a terminal disclaimer.

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(21) Appl. No.: **13/279,932**

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ANSI Z21.24/2006, CSA 6.10-2006 (reaffirmed 2011), American National Standard/CSA Standard for Connectors for Gas Appliances.

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(Continued)

Related U.S. Application Data

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(74) Attorney, Agent, or Firm — David W. Cartens; Jeffrey G. Degenfelder; Carstens & Cahoon, LLP

(51) **Int. Cl.**
F17D 5/08 (2006.01)

(57) **ABSTRACT**

(52) **U.S. Cl.**
CPC **F17D 5/08** (2013.01)
USPC **137/78.1; 251/65; 251/68; 340/601; 340/659; 324/72**

A method and apparatus for detecting and preventing electrically induced fires in a gas tubing systems constructed of Corrugated Stainless Steel Tubing (CSST) and Gas Appliance Connectors (GAC). The system of the present invention may include one or more energy detection schemes to detect electrical energy surges on the gas line. When such a surge is detected, the control circuitry of the present invention causes an electric main gas valve de-energize into a closed position. In addition, the system of the present invention further includes a residual gas dispersal system that automatically vents the residual downstream gas pressure remaining in the gas tubing system after the closure of the main gas valve.

(58) **Field of Classification Search**
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USPC 137/78.1, 78.4, 78.5; 251/65-71, 251/129.01, 129.04; 340/601, 659; 324/72, 324/72.5

See application file for complete search history.

28 Claims, 11 Drawing Sheets

