SUMMARY OF THE INVENTION

[0003] Methods and apparatus for passive non-electrical dual stage fire suppression according to various aspects of the present invention include detecting a fire with a first active fire suppressant unit and changing the status of a second fire suppressant unit from "stand-by" to "active" when the first fire suppressant unit releases a fire suppressant agent. After the first fire suppressant unit has released its fire suppressant agent, the second fire suppressant unit may detect a continued and/or a new fire and release a second fire suppressant agent in response to the detection.

BRIEF DESCRIPTION OF THE DRAWINGS

[0004] A more complete understanding of the present invention may be derived by referring to the detailed description and claims when considered in connection with the following illustrative figures. In the following figures, like reference numbers refer to similar elements and steps throughout the figures.

[0005] Figure 1 representatively illustrates a fire suppression system in accordance with an exemplary embodiment of the present invention;

[0006] Figure 2 representatively illustrates a piston cylinder and a gas cartridge; and

[0007] Figure 3 representatively illustrates a flow chart illustrating a method for delivering the first and second fire suppressants in accordance with an exemplary embodiment of the present invention.

[0008] Elements and steps in the figures are illustrated for simplicity and clarity and have not necessarily been rendered according to any particular sequence. For example, steps that may be performed concurrently or in different order are illustrated in the figures to help to improve understanding of embodiments of the present invention.

DETAILED DESCRIPTION OF EXEMPLARY EMBODIMENTS

[0009] The present invention may be described herein in terms of functional block components and various processing steps. Such functional blocks may be realized by any number of hardware or software components configured to perform the specified functions and achieve the various results. For example, the present invention may employ various housings, panels, connectors, sensors, and the like, which may carry out a variety of functions. In addition, the present invention may be practiced in conjunction with any number of structures, buildings, containers, and/or vehicles such as trucks, fixed wing aircraft, and rotorcraft, and the system described is merely one exemplary application for the invention. Further, the present invention may employ any number of conventional techniques for suppressing fire, sensing environmental conditions, and the like.

[0010] Methods and apparatus for passive non-electrical dual stage fire suppression system according to various aspects of the present invention may operate in conjunction with any suitable mobile and/or stationary application. Various representative implementations of the present invention may be applied to any system for suppressing fires. Certain representative implementations may

SUMMARY OF THE INVENTION

[0002a] The invention is defined in the independent claims. Some optional features of the invention are defined in the dependent claims.

[0003] Methods and apparatus for passive non-electrical dual stage fire suppression according to various techniques disclosed herein include detecting a fire with a first active fire suppressant unit and changing the status of a second fire suppressant unit from “stand-by” to “active” when the first fire suppressant unit releases a fire suppressant agent. After the first fire suppressant unit has released its fire suppressant agent, the second fire suppressant unit may detect a continued and/or a new fire and release a second fire suppressant agent in response to the detection.

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[0010] Methods and apparatus for passive non-electrical dual stage fire suppression system according to various techniques disclosed herein may operate in conjunction with any suitable mobile and/or stationary application. Various representative implementations of the techniques disclosed herein may be applied to any system for suppressing fires. Certain representative implementations may