What is claimed is:

1. A system (100) comprising:

a gas exhaust line (13);

a valve (14) coupling the gas exhaust line (13) and a pipe (2); and

a control unit (5) generating a command to open and close the valve (14), the control unit (5) opening the valve (14) to vent gas from the pipe (2) and closing the valve (14) within a period of time

characterized in that system (100) further comprises:

at least one pump unit (3) configured for driving fluid into the pipe (2);

a compressor (7) which is configured to force gas into the pipe (2) in order to clear the pipe (2) of the fluid; and

a detection unit (15) coupled to the gas exhaust line (13) and configured to determine that liquid is in the pipe (2);

wherein the detection unit (15) is configured to transmit a message to the control unit (5) responsive to determining that liquid is in the pipe (2), and wherein the valve (14) is configured to receive from the control unit (5) a command to close based on the message.

2. The system (100) of claim 1, wherein the detection unit (15) is configured to determine that liquid is in the pipe (2) based on a measurement conducted on the gas exhaust line (13), the measurement in particular comprising of at least one of: pressure, flow, conductivity, and elapsed time.

3. The system (100) of claim 1, wherein the control unit (5) is configured to determine that there is a fire based on at least one of:

a pressure, a pressure derivative, or a gas flow associated with the pipe (2); and

an input signal received from a detection unit (10) advising of at least one of a flame and smoke.

4. The system (100) of claim 1, further comprising:

a termination unit (16) comprising a closed container coupled to the gas exhaust line (13) and configured to prevent a failure of a sprinkler system (100) associated with the pipe (2) by prohibiting a continuous flow of liquid through the exhaust line (13) when an attempted closure of the valve (14) fails.

5. The system (100) of claim 4, wherein the termination unit (16) comprises at least one of:

a closed container configured to prevent liquid from passing through the closed container; and

a second valve configured to prevent liquid from passing through the second valve.

6. The system (100) of claim 1, wherein a sprinkler system associated with the pipe (2) comprises a dry pipe sprinkler system, and wherein the control unit (5) is remotely located from the gas exhaust line (13).

7. The system (100) of claim 1, wherein the gas exhaust line (13) and the valve (14) are located in a sprinkler (1) of a sprinkler system.

8. The system (100) of claim 4, wherein the termination unit (16) comprises a pressure relief valve.

9. A method comprising:

receiving a command at a valve (14) to open in order to exhaust gas from a pipe (2) of a sprinkler system through a line (13) coupled to the valve (14), the command corresponding to a command to tum on a pump unit (3) of the sprinkler system;

determining that liquid provided at an output of the pump unit (3) is present in the pipe (2);

receiving a command at the valve (14) to close in order to prohibit a flow of the liquid through the line (13):

determining that a fire is extinguished;

receiving a second command at the pump unit (3) to tum off responsive to determining that the fire is extinguished;

receiving a third command at a second valve, the third command directing the second valve to close in order to prohibit a further flow of the liquid into the pipe (2); and

receiving a fourth command at a gas compressor coupled to the pipe (2), the fourth command directing the compressor (7) to force gas into the pipe (2) in order to clear the pipe (2) of the liquid.

10. The method of claim 9, wherein the second, third, and fourth commands are the same command.

11. The method of claim 10, wherein the command further corresponds to a command to open the second valve configured to provide the liquid from the output of the pump unit to the pipe (2).

12. The method of claim 10, wherein the determination that liquid provided at the output of the pump unit (3) is present in the pipe (2) is based at least in part on a predetermined time period.

What is claimed is:

1. A system (100) comprising:

a gas exhaust line (13);

a valve (14) coupling the gas exhaust line (13) and a pipe (2); and

a control unit (5) generating a command to open and close the valve (14), the control unit (5) opening the valve (14) to vent gas from the pipe (2) and closing the valve (14) within a period of time

characterized in that system (100) further comprises:

at least one pump unit (3) configured for driving fluid into the pipe (2);

a compressor (7) which is configured to force gas into the pipe (2) in order to clear the pipe (2) of the fluid; and

a detection unit (15) coupled to the gas exhaust line (13) and configured to determine that liquid is in the pipe (2);

wherein in operation the at least one pump unit (3) drives fluid into the pipe with valve 14 open and the detection unit (15) is configured to transmit a message to the control unit (5) responsive to determining that liquid is in the pipe (2), and wherein the valve (14) is configured to receive from the control unit (5) a command to close based on the message.

2. The system (100) of claim 1, wherein the detection unit (15) is configured to determine that liquid is in the pipe (2) based on a measurement conducted on the gas exhaust line (13), the measurement in particular comprising of at least one of: pressure, flow, conductivity, and elapsed time.

3. The system (100) of claim 1, wherein the control unit (5) is configured to determine that there is a fire based on at least one of:

a pressure, a pressure derivative, or a gas flow associated with the pipe (2); and

an input signal received from a detection unit (10) advising of at least one of a flame and smoke.

4. The system (I00) of claim 1, further comprising:

a termination unit (16) comprising a closed container coupled to the gas exhaust line (13) and configured to prevent a failure of a sprinkler system (100) associated with the pipe (2) by prohibiting a continuous flow of liquid through the exhaust line (13) when an attempted closure of the valve (14) fails.

5. The system (100) of claim 4, wherein the termination unit (16) comprises at least one of:

a closed container configured to prevent liquid from passing through the closed container; and

a second valve configured to prevent liquid from passing through the second valve.

6. The system (100) of claim 1, wherein a sprinkler system associated with the pipe (2) comprises a dry pipe sprinkler system, and wherein the control unit (5) is remotely located from the gas exhaust line (13).

7. The system (100) of claim 1, wherein the gas exhaust line (13) and the valve (14) are located in a sprinkler (1) of a sprinkler system.

8. The system (100) of claim 4, wherein the termination unit (16) comprises a pressure relief valve.

9. A method comprising:

receiving a command at a valve (14) to open in order to exhaust gas from a pipe (2) of a sprinkler system through a line (13) coupled to the valve (14), the command corresponding to a command to tum on a pump unit (3) of the sprinkler system to direct liquid into the pipe;

determining that liquid provided at an output of the pump unit (3) is present in the pipe (2);

receiving a command at the valve (14) to close in order to prohibit a flow of the liquid through the line (13):

determining that a fire is extinguished;

receiving a second command at the pump unit (3) to tum off responsive to determining that the fire is extinguished;

receiving a third command at a second valve, the third command directing the second valve to close in order to prohibit a further flow of the liquid into the pipe (2); and

receiving a fourth command at a gas compressor coupled to the pipe (2), the fourth command directing the compressor (7) to force gas into the pipe (2) in order to clear the pipe (2) of the liquid.

10. The method of claim 9, wherein the second, third, and fourth commands are the same command.

11. The method of claim 10, wherein the command further corresponds to a command to open the second valve configured to provide the liquid from the output of the pump unit to the pipe (2).

12. The method of claim 10, wherein the determination that liquid provided at the output of the pump unit (3) is present in the pipe (2) is based at least in part on a predetermined time period.