

What is claimed is:

1. A method of inspecting a tank containing a flammable fluid, comprising:
 - coupling, via a manway adapter, a launcher to a vertical side of the tank containing the flammable fluid, the launcher comprising a first side having a lid and a second side configured to couple with the manway adapter;
 - removing the lid from the first side of the launcher;
 - loading, via the first side of the launcher, an autonomous vehicle into the launcher;
 - placing, subsequent to loading the autonomous vehicle, the lid on the first side of the launcher;
 - pressurizing the launcher having the autonomous vehicle;
 - opening, subsequent to pressurizing the launcher, the manway adapter at the second side of the launcher to release the flammable fluid into the launcher; and
 - launching, subsequent to opening the manway adapter, the autonomous vehicle from the launcher into the tank to perform a tank inspection process.
2. The method of claim 1, wherein the autonomous vehicle is in a power off state upon the loading into the launcher.
3. The method of claim 1, wherein launching the autonomous vehicle comprises:
 - triggering, a pressure switch of the autonomous vehicle responsive to an increase in pressure above a threshold caused by releasing the flammable fluid into the launcher, the autonomous vehicle to enter a power on state; and
 - navigating, by the autonomous vehicle, responsive to entering the power on state, from the launcher into the tank to perform the tank inspection process.
4. The method of claim 1, wherein pressurizing the launcher comprises:
 - opening one or more vents of the launcher;
 - filling, via the one or more vents, the launcher with a substance to pressurize the launcher; and
 - closing the one or more vents of the launcher subsequent to pressurizing the launcher.
5. The method of claim 1, wherein prior to coupling the launcher to the vertical side of the tank, the method comprises:

removing a lid from a manway located at the vertical side of the tank not containing the flammable fluid;

installing the manway adapter to the manway of the tank to seal the tank, the manway adapter having a closed gate; and

loading, subsequent to sealing the tank with the manway adapter having the closed gate, the tank with the flammable fluid.

6. The method of claim 1, wherein the manway adapter comprises a first side configured to couple with the launcher, a second side installed to the vertical side of the tank, and a first gate valve located between the first side and the second side of the manway adapter.

7. The method of claim 6, wherein coupling the launcher to the vertical side of the tank comprises coupling, via the first side of the manway adapter, a second gate valve at the second side of the launcher to the manway adapter located at the vertical side of the tank, and wherein launching the autonomous vehicle comprises opening the first gate valve and the second gate valve to release the flammable fluid into the launcher.

8. The method of claim 1, further comprising:

receiving, by the autonomous vehicle, a command to terminate the tank inspection process;

identifying, by the autonomous vehicle, the launcher located at the vertical side of the tank; and

navigating, by the autonomous vehicle responsive to identifying the launcher, from the tank to the launcher for retrieval.

9. The method of claim 1, further comprising:

subsequent to the autonomous vehicle navigating from the tank to the launcher for retrieval, closing the manway adapter at the second side of the launcher to seal the tank from the launcher;

draining, via one or more drainers of the launcher, the flammable fluid from the launcher; and

removing the lid on the first side of the launcher to retrieve the autonomous vehicle from the launcher.

10. The method of claim 9, wherein draining the flammable fluid comprising:
connecting an external tank to the one or more drainers of the launcher; and
releasing, via the one or more drainers, a substance stored in the external tank into the launcher to drain the flammable fluid from the launcher.
11. The method of claim 9, further comprising:
releasing, subsequent to draining the flammable fluid from the launcher, one or more cleaning solutions into the launcher via one or more vents of the launcher; and
draining the one or more cleaning solutions from the launcher via the one or more drainer of the launcher.
12. The method of claim 1, wherein the launcher comprises a plurality of wheels to maneuver the launcher for coupling to the vertical side of the tank.
13. The method of claim 1, wherein the autonomous vehicle comprises at least one sensor, at least one propeller, at least one ranging device, and at least one inspection device.
14. A system of inspecting a tank containing a flammable fluid, comprising:
a launcher comprising a first side having a lid and a second side configured to couple, via a manway adapter, to a vertical side of the tank containing the flammable fluid; and
an autonomous vehicle comprising a data processing system and a memory, the autonomous vehicle loaded into the launcher via the first side of the launcher subsequent to removing the lid, wherein the autonomous vehicle is configured to:
detect, subsequent to the manway adapter at the second side of the launcher being opened to release the flammable fluid into the launcher, a pressure within the launcher greater than a pressure threshold;
initiate, responsive to the detection of the pressure greater than the pressure threshold, a launching sequence stored in the memory; and
navigate, responsive to initiating the launching sequence, from the launcher into the tank to perform the tank inspection process.
15. The system of claim 14, wherein the autonomous vehicle is in a power off state upon the loading into the launcher.

16. The system of claim 14, wherein the autonomous vehicle is configured to:
- enter, via triggering of a pressure switch of the autonomous vehicle responsive to an increase in pressure above a threshold caused by releasing the flammable fluid into the launcher, a power on state; and
 - navigate, responsive to entering the power on state, from the launcher into the tank to perform the tank inspection process.
17. The system of claim 14, wherein the manway adapter comprises a first side configured to couple with the launcher, a second side installed to the vertical side of the tank, and a first gate valve located between the first side and the second side of the manway adapter.
18. The system of claim 14, wherein to couple the launcher to the vertical side of the tank, the system comprises:
- a manway located at the vertical side of the tank not containing the flammable fluid, the manway having a removed lid, and
 - wherein the manway adapter is configured to be installed to the manway to seal the tank, the manway adapter having a closed gate, and wherein the tank is loaded with the flammable fluid subsequent to the tank sealed with the closed gate.
19. The system of claim 14, wherein the autonomous vehicle is further configured to:
- receive a command to terminate the tank inspection process;
 - identify the launcher located at the vertical side of the tank; and
 - navigate, responsive to identifying the launcher, from the tank to the launcher for retrieval.
20. The system of claim 14, wherein the autonomous vehicle comprises at least one sensor, at least one propeller, at least one ranging device, and at least one inspection device.