What Is Claimed Is:

1. A system for treating moisture in exhaust gas, the system using a cooling trap to remove the moisture contained in the exhaust gas discharged by a process and comprising:

a tank that stores, as liquid water, the moisture flown out of the cooling trap;

a water level measurement means that measures a water level in the tank;

a pipe connected to a drainage port for draining the water stored in the tank to outside;

a valve disposed in the pipe; and

a valve control means that opens the valve to start drainage when the water level in the tank measured by the water level measurement means exceeds a first water level and begins closing the valve when a second water level set lower than the first water level is reached, the second water level being provided at a position higher than the drainage port, wherein

the water passes through the valve between when the valve control means begins closing the valve and when the valve is completely closed and wherein the second water level is set such that the water remains above the drainage port between when the valve control means begins closing the valve and the valve completely closes even when there is a negative pressure downstream of the valve.

2. The system for treating the moisture in the exhaust gas according to claim 1, wherein the cooling trap and the tank are connected to each other by an unbent pipe.

3. The system for treating the moisture in the exhaust gas according to claim 1, wherein the pipe includes a drainage amount adjustment mechanism that adjusts, of the water stored in the tank, an amount of the water to be drained to the outside.

4. The system for treating the moisture in the exhaust gas according to claim 1, wherein

the first water level is a water level set to prevent backflow from the tank toward the cooling trap, and

the second water level is a water level set to seal water such that, during the drainage, the exhaust gas is not discharged from the pipe to the outside.