Method for monitoring a gas generator of a hydrogen storage and supply system consists in that an area of an outlet orifice of the gas generator is step-changed by an a priori given value and at two a priori given moments of time. Increments of pressure in a cavity of the gas generator caused by the change in the area of its outlet orifice are measured. Wherein a rate of pressure change in the cavity of the gas generator is monitored on time intervals limited by the a priori given moments of time. Integrals of the pressure increments in the cavity of the gas generator caused by the change in the area of its outlet orifice are measured. At the moment the rate of pressure change in the cavity of the gas generator reaches a value equal to zero, a value of the pressure increment in the cavity of the gas generator caused by the change in the area of its outlet orifice is measured. The monitoring result is determined using criteria:

$$\left|K_N - \Delta P(T) F_0^{-1}\right| \le \varepsilon_1;$$

$$\left|\tau_N - \Delta P_i^{-1}[\Delta P(T)(t_i - \tau_0) - I_i]\right| \le \varepsilon_2, i = 1,2;$$

$$\left|\tau_{0N} - \tau_0\right| \le \varepsilon_3;$$

$$\tau_0 = [\Delta P(T)(\Delta P_1 t_2 - \Delta P_2 t_1) - I_2 \Delta P_1 + I_1 \Delta P_2] \cdot [\Delta P(T)(\Delta P_1 - \Delta P_2)]^{-1},$$

where K_N, τ_N, τ_{0N} are nominal values of integral parameters of the gas generator — a transfer coefficient, a time constant, and a delay time, respectively. t_i are a priori given moments of time (i=1,2); F_0 is an a priori given value of the step change in the area of the outlet orifice of the gas generator. ΔP_1, ΔP_2 are values of the pressure increment in the cavity of the gas generator caused by the change in the area of its outlet orifice at a priori given moments of time t_1 and t_2, respectively. I_1, I_2 are integrals of the pressure increment in the cavity of the gas generator caused by the change in the area of its outlet orifice on time intervals limited by the a priori given moments of time and t_2, respectively. $\Delta P(T)$ is a value of the pressure increment in the cavity of the gas generator caused by the change in the area of its outlet orifice at the moment of time T which corresponds to the rate of pressure change in the cavity of the gas generator reaching a value equal to zero. ε_i - i - is the small a priori given number ($i = \overline{1,3}$).