The generalized Fokker-Planck equation for $\rho = \rho(x,t)$ reads

$$\partial_t \rho = \frac{1}{\gamma}\partial_x \left[V'(x)\rho\right] + \frac{2k_b T}{\gamma}\sum_{n=0}^{\infty} D_n \partial_x^{2n+2}\rho. \tag{1}$$

where k_b, T, γ are the Boltzmann constant, temperature, and friction constant respectively. Besides, V'(x) is an external force and the factor D_n is defined as

$$D_n = \frac{\sigma^2}{k_B T}\beta_n + \zeta_n. \tag{2}$$

where $\beta_n = \sigma^{2n}/(\gamma^{2n}2^n n!)$, and $\zeta_n = \sigma^{2n}/(\gamma^{2n}2^{n+1}(n+1)!)$. Moreover, σ is a constant parameter.