$V = \pi r^2 h/3$, so

$$\frac{dV}{dt} = \frac{\partial V}{\partial r}\frac{dr}{dt} + \frac{\partial V}{\partial h}\frac{dh}{dt} = \frac{2\pi r h}{3}\,1.4 + \frac{\pi r^2}{3}(-2.4)$$

$$= 14739.20\pi - 10035.20\pi = 4704\pi \text{ in}^3/\text{ s}.$$