Let \( \phi(z) \) be a function in the Laguerre-Pólya class. Write \( \phi(z) = e^{-\alpha z^2} \phi_1(z) \) where \( \alpha \geq 0 \) and where \( \phi_1(z) \) is a real entire function of genus 0 or 1. Let \( f(z) \) be any real entire function of the form \( f(z) = e^{-\gamma z^2} f_1(z) \) such that \( \gamma \geq 0 \) and \( f_1(z) \) is a real entire function of genus 0 or 1 having all of its zeros in the strip \( S(r) = \{ z \in \mathbb{C} : -r \leq \text{Im} \, z \leq r \} \) for \( r > 0 \). If \( \alpha \gamma < 1/4 \), the linear differential operator \( \phi(D)f(z) \), where \( D \) denotes differentiation, converges to a real entire function whose zeros also belong the strip \( S(r) \). We discuss necessary and sufficient conditions on \( \phi(z) \) such that all zeros of \( \phi(D)f(z) \) belong to a smaller strip \( S(r_1) = \{ z \in \mathbb{C} : -r_1 \leq \text{Im} \, z \leq r_1 \} \) where \( 0 \leq r_1 < r \) and \( r_1 \) depends on \( \phi(z) \) but is independent of \( f(z) \). A linear operator having this property is called a \textit{complex zero strip decreasing operator}. (Received September 12, 2015)