Theorem on sufficient conditions (continuation)

3) For any $t \in (0, \Theta) \setminus \mathcal{T}$ such that $B(t) \setminus S(t) \neq \varnothing$ and any arbitrarily small $\varepsilon > 0$, there is a value $\delta > 0$ and a sequence of functions

$$\omega_k^{\infty}(\cdot) : G^B(t, \varepsilon, \delta) \to [0, \infty], \quad k \in \mathbf{N},$$

where

$$G^B(t, \varepsilon, \delta) = B(t) \setminus G(t, \varepsilon) + O_\delta,$$

such that the functions $\omega_k^{\infty}(\cdot)$, $k \in \mathbf{N}$, are v-stable on the set $G^B(t, \varepsilon, \delta) \setminus D(t)$ and vanish and are continuous at the points of the set $D(t) \cap G^B(t, \varepsilon, \delta)$, and the limit relation

$$\lim_{k \to \infty} \omega_k^{\infty}(x) = \infty, \quad x \in G^B(t, \varepsilon, \delta) \setminus D(t),$$

holds.