

es-p-immediate-pred^{11,40}

$$\begin{aligned} & \text{es-p-immediate-pred}(es;P)(e,e') \\ \equiv_{\text{def}} & (e' < e) \ \& \ P(e) \ \& \ P(e') \ \& \ (\forall e'' : \text{E}. (e'' < e) \Rightarrow (e' < e'') \Rightarrow (\neg(P(e'')))) \end{aligned}$$

clarification:

$$\begin{aligned} & \text{es-p-immediate-pred}(es;P)(e,e') \\ \equiv_{\text{def}} & \text{es-causl}(es; e'; e) \\ & \ \& \ P(e) \\ & \ \& \ P(e') \\ & \ \& \ (\forall e'' : \text{es-E}(es). \text{es-causl}(es; e''; e) \Rightarrow \text{es-causl}(es; e'; e'') \Rightarrow (\neg(P(e'')))) \end{aligned}$$