weak-precond-send-p[11,40]

weak-precond-send-p(es;T;A;l;tg;a;ds;P;f)
$\equiv_{\text{def}}$ (($\forall x$:Id. vartype(source(l);x) $\subseteq$r $ds(x)$?Top)
    & $\forall e$@source(l). (kind(e) = locl(a)) $\Rightarrow$ (valtype(e) $\subseteq$r A)
    & ($\forall e$:E. (kind(e) = rcv(l,tg)) $\Rightarrow$ (valtype(e) $\subseteq$r T)))
    c$\wedge$ (($\forall e'$:E.
        (kind(e') = rcv(l,tg))
        $\Rightarrow$ ((kind(sender(e')) = locl(a))
          c$\wedge$ (($\uparrow$(P((state when sender(e')))))
            & val(e') = f((state when sender(e')),val(sender(e'))))))
      & $\forall e$@source(l).
        $\exists e'$:E
         (e c$\leq$ e'
         & (((kind(e') = rcv(l,tg)) c$\wedge$ e $\leq$loc sender(e'))
           $\vee$ ((loc(e') = source(l)) c$\wedge$ ($\neg$($\forall t$:$\mathbb{Q}$. $\uparrow$(P((state after e')+t)))))))))))

clarification:

weak-precond-send-p(es;T;A;l;tg;a;ds;P;f)
$\equiv_{\text{def}}$ (($\forall x$:Id. es-vartype(es; source(l); x) $\subseteq$r fpf-cap(ds;IdDeq;x;Top))
    & alle-at(es;source(l);e.(es-kind(es; e) = locl(a) $\in$ Knd)
    $\Rightarrow$ (es-valtype(es; e) $\subseteq$r A))
    & ($\forall e$:es-E(es). (es-kind(es; e) = rcv(l,tg) $\in$ Knd) $\Rightarrow$ (es-valtype(es; e) $\subseteq$r T)))
    c$\wedge$ (($\forall e'$:es-E(es).
        (es-kind(es; e') = rcv(l,tg) $\in$ Knd)
        $\Rightarrow$ ((es-kind(es; es-sender(es; e')) = locl(a) $\in$ Knd)
          c$\wedge$ (($\uparrow$(P(es-state-when(es;es-sender(es; e')))))
            & es-val(es; e')
             =
            f(es-state-when(es;es-sender(es; e')),es-val(es; es-sender(es; e')))
            $\in$ T)))
      & alle-at(es;source(l);e.$\exists e'$:es-E(es)
                  (es-causle(es;e;e')
                 & (((es-kind(es; e') = rcv(l,tg) $\in$ Knd)
                   c$\wedge$ es-le(es;e;es-sender(es; e')))
                  $\vee$ ((es-loc(es; e') = source(l) $\in$ Id)
                   c$\wedge$ ($\neg$($\forall t$:$\mathbb{Q}$.
                    $\uparrow$(P(es-state-after-elapsed(es;e';t)))))))))))))