chain-consistent-updates[13,45]

$\forall es$:ES, Cmd:Type, In:AbsInterface(Cmd), $isupdate$:($Cmd \rightarrow \mathbb{B}$), Sys, Out:AbsInterface(Top).
(E(In) $\subseteq$r E(Sys))
$\Rightarrow$ (E(Out) $\subseteq$r E(Sys))
$\Rightarrow$ ($\forall e$:E(In). ($\neg$($\uparrow$($isupdate$(In(e))))) $\Rightarrow$ ($\uparrow$($e \in_b Out$)))
$\Rightarrow$ ($\forall f$:sys-antecedent(es;Sys).
  ($\forall u$:E(Sys). ($f(u) = u \in$ E) $\Rightarrow$ ($\uparrow$($u \in_b In$)))
  $\Rightarrow$ fifo-antecedent(es;Sys;f)
  $\Rightarrow$ ($\forall e$:E(In). $f(e) = e \in$ E)
  $\Rightarrow$ ($\forall chain$:(E(Sys)$\rightarrow$(Id List)).
    chain-consistent(f;$chain$)
    $\Rightarrow$ consistent-updates(es;In;Out;Cmd;$isupdate$;λe.cr-explanation{i:l}
                (es; Sys; f; e))))

http://www.nuprl.org/FDLcontent/p0_963683_/p28_548285_{chain-consistent-updates}.html