Obvious Positions

A smaller set of positions from $\phi$, called *obvious positions*, is still preventing the explosion and given by the rules:

(i) $p$ is an obvious position if $\phi|_p$ is an equivalence and there is a position $q < p$ such that $\phi|_q$ is either an equivalence or disjunctive in $\phi$ or

(ii) $pq$ is an obvious position if $\phi|_{pq}$ is a conjunctive formula in $\phi$, $\phi|_p$ is a disjunctive formula in $\phi$, $q \neq \epsilon$, and for all positions $r$ with $p < r < pq$ the formula $\phi|_r$ is not a conjunctive formula.

A formula $\phi|_p$ is conjunctive in $\phi$ if $\phi|_p$ is a conjunction and $\text{pol}(\phi, p) \in \{0, 1\}$ or $\phi|_p$ is a disjunction or implication and $\text{pol}(\phi, p) \in \{0, -1\}$.

Analogously, a formula $\phi|_p$ is disjunctive in $\phi$ if $\phi|_p$ is a disjunction or implication and $\text{pol}(\phi, p) \in \{0, 1\}$ or $\phi|_p$ is a conjunction and $\text{pol}(\phi, p) \in \{0, -1\}$.