

$$\lceil \bar{s}_i \wedge (s_{i-1} \wedge s_i^?) \vee (s_{i-1}^? \wedge s_i^?.o) \rceil \rightarrow s_i^?.x; ready^?.\downarrow; s_i^?.\uparrow; s_i^?.\downarrow \lceil X_o \wedge X_1 \rceil \rightarrow \lceil address_{rule} = X_{address} \rightarrow \text{flag}_{i-1}, \text{flag}_o, 0!x; ready^?.\uparrow \rceil$$

$$\lceil X_o \wedge X_1 \rceil \rightarrow \lceil \text{flag}_i \wedge \text{flag}_o \rightarrow 0!x \rceil$$

$$\neg X_o \wedge \neg X_1 \rightarrow \lceil \text{flag}_i \wedge \text{flag}_o \rightarrow 0!x; \text{flag}_i \downarrow, \text{flag}_o \downarrow, s_{i-1}^? \downarrow, s_i^? \downarrow \rceil$$

$$\lceil \bar{s}_i \wedge (s_{i-1}^? \wedge s_i^?.o) \rceil \rightarrow i^?.x; ready^?.\downarrow; s_i^?.\uparrow; s_i^?.\downarrow \lceil X_o \wedge X_1 \rceil \rightarrow \lceil address_{rule} = X_{address} \rightarrow \text{flag}_i \uparrow, \text{flag}_o \uparrow, 0!x; ready^?.\uparrow \rceil$$

$$\lceil X_o \wedge \neg X_1 \rceil \rightarrow \lceil \text{flag}_i \wedge \text{flag}_o \rightarrow 0!x \rceil$$

$$\text{flag}_i \wedge \neg \text{flag}_o \rightarrow 0!x \rceil$$

$$\lceil X_o \wedge \neg X_1 \rceil \rightarrow \lceil \text{flag}_i \wedge \text{flag}_o \rightarrow 0!x; \text{flag}_i \downarrow, \text{flag}_o \downarrow, s_{i-1}^? \downarrow, s_i^? \downarrow \rceil$$

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