Answer

The translation of algorithm *DieHarder* defines the next-state action to equal:

$$\vee \ \exists j \in Jugs \ : \ F_1$$
$$\vee \ \exists j \in Jugs \ : \ F_2$$
$$\vee \ \exists j \in Jugs \ : \ F_3$$

for formulas F_1, F_2, and F_3. The translation of the modified algorithm defines the next-state action to be the equivalent formula:

$$\exists j \in Jugs \ : \ F_1 \vee F_2 \vee F_3$$