$$(\sigma\ /\ ((mod_0\ ...\ (\text{module}\ id_0\ ((\text{require}\ id_{new}\ @\ phase_{new})\ req\ ...)\ (code\ ...)\ mod_n\ ...)\ /\ ((id_0\ phase_0)\ inst_n\ ...)\ /\ (inst_d\ ...)))\ \longrightarrow\quad \text{[module require]}$$
$$(\sigma\ /\ ((mod_0\ ...\ (\text{module}\ id_0\ (req\ ...)\ (code\ ...)\ mod_n\ ...)\ /\ ((id_{new}\ \boxed{(\texttt{+}\ phase_{new}\ \ phase_0)})\ (id_0\ phase_0)\ inst_n\ ...)\ /\ (inst_d\ ...)))$$

$$(\sigma\ /\ ((mod_0\ ...\ (\text{module}\ id_0\ ()\ (code_0\ ...\ (phase\ (E\ expr\ ...))\ code_n\ ...))\ mod_n\ ...)\ /\ ((id_0\ phase_0)\ inst_n\ ...)\ /\ (inst_d\ ...))[var])\ \longrightarrow\quad \text{[var ref]}$$
$$(\sigma\ /\ ((mod_0\ ...\ (\text{module}\ id_0\ ()\ (code_0\ ...\ (phase\ (E\ expr\ ...))\ code_n\ ...))\ mod_n\ ...)\ /\ ((id_0\ phase_0)\ inst_n\ ...)\ /\ (inst_d\ ...))[val])$$
$$\text{where}\ \boxed{(\texttt{zero?}\ (\texttt{+}\ phase\ \ phase_0))},\ val = \text{lookup}[\![\sigma,\ var]\!]$$

$$(\sigma\ /\ ((mod_0\ ...\ (\text{module}\ id_0\ ()\ (code_0\ ...\ (phase\ (E\ expr\ ...))\ code_n\ ...))\ mod_n\ ...)\ /\ ((id_0\ phase_0)\ inst_n\ ...)\ /\ (inst_d\ ...))[(\texttt{+}\ number_0\ number_1)])\ \longrightarrow\quad \text{[add]}$$
$$(\sigma\ /\ ((mod_0\ ...\ (\text{module}\ id_0\ ()\ (code_0\ ...\ (phase\ (E\ expr\ ...))\ code_n\ ...))\ mod_n\ ...)\ /\ ((id_0\ phase_0)\ inst_n\ ...)\ /\ (inst_d\ ...))[\boxed{(\texttt{+}\ number_0\ \ number_1)}])$$
$$\text{where}\ \boxed{(\texttt{zero?}\ (\texttt{+}\ phase\ \ phase_0))}$$

$$(\sigma_0\ /\ ((mod_0\ ...\ (\text{module}\ id_0\ ()\ (code_0\ ...\ (phase\ (E\ expr\ ...))\ code_n\ ...))\ mod_n\ ...)\ /\ ((id_0\ phase_0)\ inst_n\ ...)\ /\ (inst_d\ ...))[(\texttt{set!}\ var\ val)])\ \longrightarrow\quad \text{[set!]}$$
$$(\sigma_1\ /\ ((mod_0\ ...\ (\text{module}\ id_0\ ()\ (code_0\ ...\ (phase\ (E\ expr\ ...))\ code_n\ ...))\ mod_n\ ...)\ /\ ((id_0\ phase_0)\ inst_n\ ...)\ /\ (inst_d\ ...))[val])$$
$$\text{where}\ \boxed{(\texttt{zero?}\ (\texttt{+}\ phase\ \ phase_0))},\ \sigma_1 = \text{assign}[\![\sigma_0,\ var,\ val]\!]$$

$$(\sigma\ /\ ((mod_0\ ...\ (\text{module}\ id_0\ ()\ (code_0\ ...\ (phase\ (val\ expr\ ...))\ code_n\ ...))\ mod_n\ ...)\ /\ ((id_0\ phase_0)\ inst_n\ ...)\ /\ (inst_d\ ...)))\ \longrightarrow\quad \text{[expression done]}$$
$$(\sigma\ /\ ((mod_0\ ...\ (\text{module}\ id_0\ ()\ (code_0\ ...\ (phase\ (expr\ ...))\ code_n\ ...))\ mod_n\ ...)\ /\ ((id_0\ phase_0)\ inst_n\ ...)\ /\ (inst_d\ ...)))$$
$$\text{where}\ \boxed{(\texttt{zero?}\ (\texttt{+}\ phase\ \ phase_0))}$$

$$(\sigma\ /\ ((mod_0\ ...\ (\text{module}\ id_0\ ()\ (code_0\ ...\ (phase\ ())\ code_n\ ...))\ mod_n\ ...)\ /\ ((id_0\ phase_0)\ inst_n\ ...)\ /\ (inst_d\ ...)))\ \longrightarrow\quad \text{[module done]}$$
$$(\sigma\ /\ ((mod_0\ ...\ mod_n\ ...)\ /\ (inst_n\ ...)\ /\ ((id_0\ phase_0)\ inst_d\ ...)))$$
$$\text{where}\ \boxed{(\texttt{zero?}\ (\texttt{+}\ phase\ \ phase_0))}$$

$$(\sigma\ /\ ((mod\ ...)\ /\ (inst_0\ inst_n\ ...)\ /\ (inst_{d0}\ ...\ inst_0\ inst_{dn}\ ...)))\ \longrightarrow\quad \text{[module done already]}$$
$$(\sigma\ /\ ((mod\ ...)\ /\ (inst_n\ ...)\ /\ (inst_{d0}\ ...\ inst_0\ inst_{dn}\ ...)))$$