```
procedure CheckEG(f_1)
                     S' := \{ s \mid f_1 \in label(s) \};
                     MSCC := \{C \mid C \mid S' \text{ o } \text{ o } \text{ l } \text{ u } \text{ o } \text{ l } \text{ l } \text{ o } \text{ l } \text{ l } \text{ o } \text{ l }
                     T := \bigcup_{C \in MSCC} \{ s \mid s \in C \};
                     for all s \in T do label(s) := label(s) \cup \{ \mathbf{EG}f_1 \};
                      while T \neq \emptyset do
                                            choose s \in T;
                                           T := T \setminus \{s\};
                                            for all t such that t \in S' and R(t,s) do
                                                                  if \mathbf{EG}f_1 \notin label(t) then
                                                                                         label(t) := label(t) \cup \{ \mathbf{EG}f_1 \};
                                                                                       T := T \cup \{t\};
                                                                   end if
                                            end for all
                      end while
end procedure
```