**Initial State:**

Init (OnLeftBank (farmer) OnLeftBank (fox) OnLeftBank (goose) OnLeftBank(beans))

**Goal State:**

Init (OnLeftBank (farmer) OnLeftBank (fox) OnLeftBank (goose) OnLeftBank(beans))

Action (**CrossRiver** (farmer), For left side

PRECOND: OnLeftBank (farmer) OnLeftBank (fox)  OnLeftBank (goose)) OnLeftBank (goose)  OnLeftBank (beans))

Add:  OnLeftBank (farmer)

Delete: OnLeftBank (farmer)

Action (**CrossRiver** (farmer), For right side

PRECOND:  OnLeftBank (farmer)  OnLeftBank (fox)   OnLeftBank (goose))  OnLeftBank (goose)   OnLeftBank (beans))

Add: OnLeftBank (farmer)

Delete:  OnLeftBank (farmer)

Action (**CrossRiver** (goose), For left side

PRECOND: OnLeftBank (farmer)  OnLeftBank (goose))

Add:  OnLeftBank (farmer),  OnLeftBank (goose)

Delete: OnLeftBank (farmer), OnLeftBank (goose)

Action (**CrossRiver** (goose), For right side

PRECOND:  OnLeftBank (farmer)   OnLeftBank (goose))

Add: OnLeftBank (farmer), OnLeftBank (goose)

Delete:  OnLeftBank (farmer),  OnLeftBank (goose)

Action (**CrossRiver** (fox), For left side

PRECOND: OnLeftBank (farmer)  OnLeftBank (fox) OnLeftBank (goose) OnLeftBank (beans))

Add:  OnLeftBank (farmer),  OnLeftBank (fox)

Delete: OnLeftBank (farmer), OnLeftBank (fox)

Action (**CrossRiver** (fox), For right side

PRECOND: OnLeftBank (farmer)  OnLeftBank (fox) OnLeftBank (goose) OnLeftBank (beans))

Add: OnLeftBank (farmer), OnLeftBank (fox)

Delete: OnLeftBank (farmer), OnLeftBank (fox)

Action (**CrossRiver** (beans), For left side

PRECOND: OnLeftBank (farmer)  OnLeftBank (beans) OnLeftBank (goose) OnLeftBank (fox))

Add:  OnLeftBank (farmer),  OnLeftBank (beans)

Delete: OnLeftBank (farmer), OnLeftBank (beans)

Action (**CrossRiver** (beans), For right side

PRECOND: OnLeftBank (farmer)  OnLeftBank (beans) OnLeftBank (goose) OnLeftBank (fox))

Add: OnLeftBank (farmer), OnLeftBank (beans)

Delete: OnLeftBank (farmer), OnLeftBank (beans)