Checklist

Preparation for Start-up

☐ Feed valve on the 2nd floor is closed.
☐ Sufficient feed is available in the supply tank.
☐ Feed has been mixed and the mixer is turned off.
☐ Valves V-a and V-b on the line leaving the supply tank are open and the recycling valve V-c is closed.
☐ Feed sample is taken and its composition is determined.
☐ Air supply is turned on (valve VA).
☐ Product tanks are empty.
☐ Water supply is turned on (valves V2-V7). Flow rate of the cooling water is 8.
☐ Steam is turned on (valves V8-V10)

Start-up

☐ Vacuum valves (V15-V18) on product tanks are open, air valves (V20-V23) are closed.
☐ Feed valve (VF) is open and the initial feed flow rate is below 0.05.
☐ Motor for rotor blades is on.

At this point, the thin film evaporator is fully operational.

While TFE is running

☐ Switch product tanks when they fill up.
☐ Re-set tanks (switch intake valves into an appropriate position, empty the tanks, establish vacuum).
☐ Obtain product samples and determine their composition.
☐ Record pertinent data (temperatures, pressures, flow rates, product compositions, etc.).

Shutting Down

☐ Motor for rotor blades is turned off.
☐ Feed valve (VF) is closed.
☐ Product tanks are emptied.
☐ All valves – intake (V11-V14), vacuum (V15-V18), air (V20-V23), and outlet valves (V24-V27) – on the product tanks are closed.
☐ Main steam valve (V8) is closed.
☐ Steam valves to the evaporator (V9) and the injector (V10) are closed.
☐ Water valves (V2-V7) are closed.
☐ Master air valve (VA) is closed.
☐ Tanks are checked for pressurization and the pressure or vacuum are released if necessary.
☐ Valves V-a V-b on the third floor leaving the supply tank are closed.