The RPC rack is B636-01. To reset a trip:
1. Push disable
2. Use the red reset buttons to reset the faults
3. Reset the SIAMs in the safety rack
4. Push enable

If these steps don’t work, check that the ventilation system and the HAD system are up and running, and that only the internal RPC system trips are stopping the RPC gas flow.

To verify this, check rack B636-03; when only SIAM 5 from SIAMS 1-5 has red TRP lights on, you can be certain that it is an internal RPC trip. All of the valves controlled by Panels 125-945 and 125-962 should be enabled and powered except for the RPC isobutane. The RPC isobutane valves should both be enabled. Panel 125-945 should show only a Group 5 fault (RPC system).

If channel 5 of SIAM 5 is tripped, it will need to be put into bypass. To do this, push the SIAM 5 inhibit button at the bottom and the channel 5 RST button at the same time. The orange INH light should turn on. Once the isobutane flow is enabled, the input should revert to normal.

A ‘MIXED GAS OUTPUT FLOW FAULT’ could require the key for the ‘OUTPUT FLOW OVERRIDE’ to be turned horizontally before it can be cleared. This can happen if, for example, only the isobutane has been shut off as occurs when there is a HAD alarm. Return the key to the vertical position when done.

The system will have about a minute or two to start a fill. The system may trip at the end of this period because pressures and flows have not reached equilibrium. If so, repeat the process. Clear any inhibited channels when done.
Below we show a picture of a portion of the gas shack safety rack, B636-03, concentrating on Panels 125-945 and 125-962. All the valves in the panels should be ENABLED. The LEDs on the left side of Panel 125-945 will show the conditions causing the gas supplies to be shut down. After the ventilation and the HAD systems are restored, Panel 125-945 should show only a Group 5 fault (RPC system) under normal conditions.

LEDs will tell you what tripped, the labels refer to the acronyms from the logic chart (Group 1 Fault, etc.)

Each valve has both an ‘enable’ and a ‘disable’ button and a ‘powered’ status light. DCH and RPC valves are controlled here.

A picture of the ENABLE, DISABLE, and RESET buttons for the RPC mixing rack is shown below.

The last RPC device that could trip off the system is the sensor monitoring the ventilation fan for the RPC mixing rack itself. The sensor makes certain that there is enough ventilation going into the rack to prevent a buildup of isobutane inside the rack were there to be a leak there. The signal from this sensor goes to channel 0 of SIAM 4; Panel 125-945 will show a Group 3 Fault. If the fan fails, one needs to remove the back door to the RPC mixing system to provide rack ventilation and to call an expert to physically bypass the sensor until the fan can be repaired.
Picture of the SIAMs in the gas shack
VME crate

This is where you look to clear the RPC SIAMs manually, SIAM 5 will shut off the RPC isobutane