16 – Magnet in operation at 4.2K

**Sensors and actuators used:**

- Pressure: PT660, PT681

- Valve: FV642, FV680, FV587, FV642

- Control valve: CV602, CV581, CV583, CV680

- Level: LT682, LT683

|  |  |
| --- | --- |
| **The user chooses:** | **Initial conditions:** |
| - Level: LT682setpoint, LT683setpoint | - Magnet insert selected  - Sequence from 1 to 3 stopped  - Sequence 15,17, 18 stopped  - Sequence 8 in operation |
| - Pressure: PT660setpoint, PT681setpoint |
| - Control valve: CV602%opening, CV581%opening, CV583%opening  - Quench valid minimum current threshold |

Operator’s “Yes”

More than 2 s in state 8 & PT681 < SP PT681

Quench detected

Stop

Stop 4K

Regulation

Close FV640, FV642

Close FV680

Close CV602, CV680

CV581 regulated PT660=PT660setpoint

CV583 regulated PT681=PT681setpoint

(CV602 & CV680) closed

Open FV640, FV642, FV680

CV602 regulated LT682=LT682setPoint

CV583 regulated PT681=PT681setpoint

CV680 regulated LT683=LT683setpoint

CV581 regulated PT660=PT660setpoint

Start

Stop

Regulation

Stop Filling

Close FV642

Close FV587

Open CV583 to 100%

Waiting for resuming normal operation

Close FV642

Open FV587

CV583 regulated PT681=PT681setpoint