What to do during a power outage

1) Check status of all cryoprobes.

   cryoprobes should survive because all components are on UPSs and emergency power - see section on cryoprobes

2) Check BMPC on 800.

   see section on 800 US^2 system

3) Turn off all components of console and computers.

Shutting down the console

During a power outage, it's important that the consoles be shut down properly. If they aren't shut down, then components can fry when the power comes back on.

If I'm not here, you can get help from Bob Taylor or TC Ong:

Bob Taylor:
    office: MSB 1417
    phone: 6-2074
    email: taylor@chem.ucla.edu

TC Ong:
    office: MSB 1422
   phone: 6-0577
    email: ong@chem.ucla.edu

All systems are on UPSs, which should power them for at least 10 minutes, even with an experiment running.

500(Mulder):

It's important that the entire console not be switched on all at once. So during a power outage, switch all components off individually (marked by blue arrows).

If a power outage occurs with an experiment running: first stop the experiment. Then turn the components off. Then turn the main power off.

When the power comes back on, first turn the main power on.

Then turn the components on slowly, pausing several seconds between each one. Start with the amplifiers at the lower right. Then turn on the other components on the right side. Then turn on the BSMS at the lower left, then finally the AQX rack at the top left.

Green and red buttons are main power on and off.

Back side of gradient amplifier
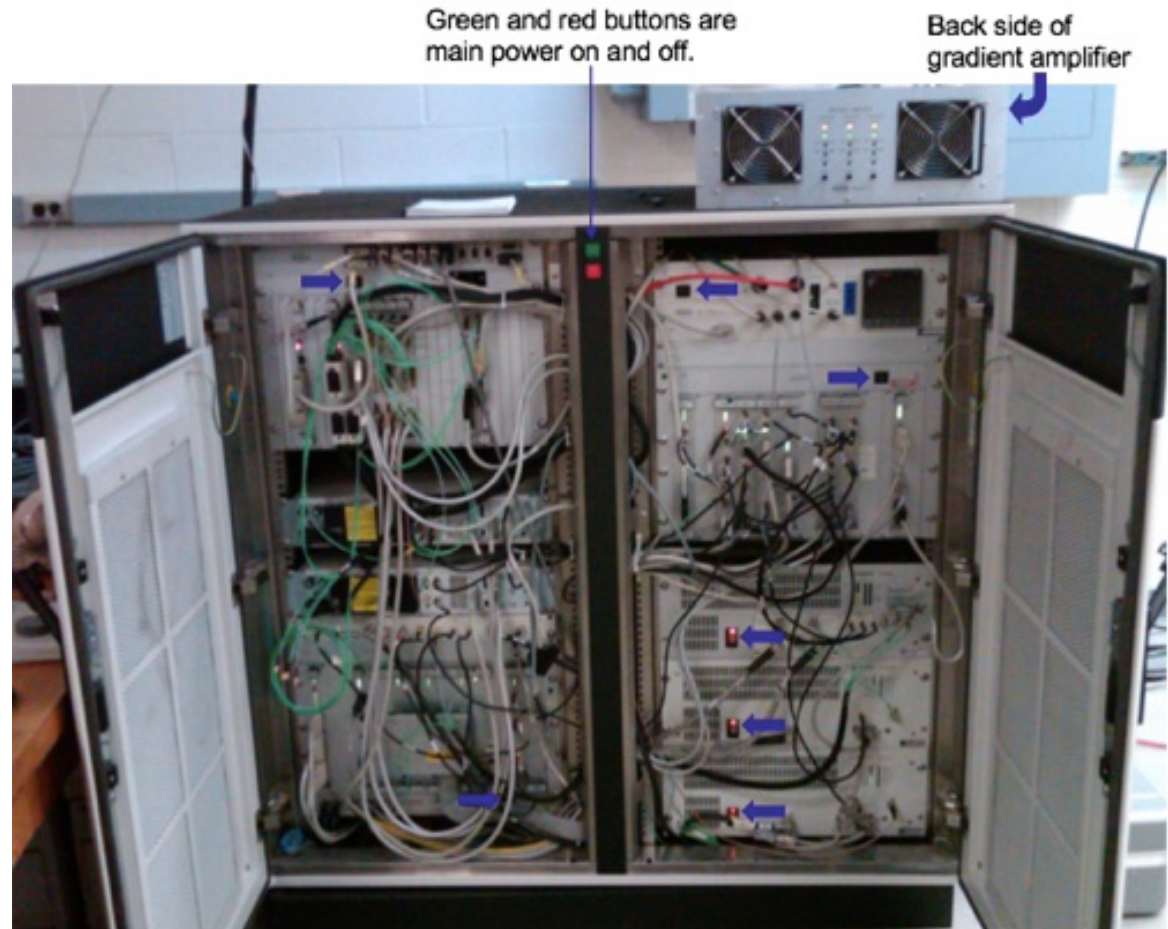
<u>600 (Bond):</u>   Procedure is similar to Mulder.

If a power outage occurs, stop any experiment, and turn off the components. Then turn off the main power. ⟶

To turn things back on, first turn on computer, but not topspin. Then turn the main console power back on, then turn the components on in this order:

1)AQS
2)BSMS (takes ~5 minutes)
3)BLA (amplifier)

Then start topspin and do <u>ii</u> until no errors appear.

<u>Bosch:</u>   Procedure is very different. Notice: there are no power switches on the components.

Console can only be turned on through the software.

Console can be turned off with the main power though.

To turn the console back on:
1) Turn on the computer, login, but don't start topspin.
2) Turn on main power to the console.
3) Wait until power light on router stops blinking (takes ~3 minutes).
4) Start topspin, type <u>pdudisp</u>.

Inside pdudisp there are buttons "on", "reboot" and "shutdown".

If possible, the console should also be shut down using pdudisp (before turning the main power off)

Bosch: The BMPC will also shut down the console during a power outage. If this has happened, you must enable the console through the BMPC before you can turn in on.

Unfortunately, before you can get to the menu to do that, you have to turn off the monitoring. Push the "Off" button under "Mode" on the BMPC monitoring screen.
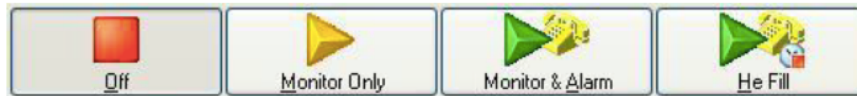
This will require a username and password. username: *service*

password: *special*

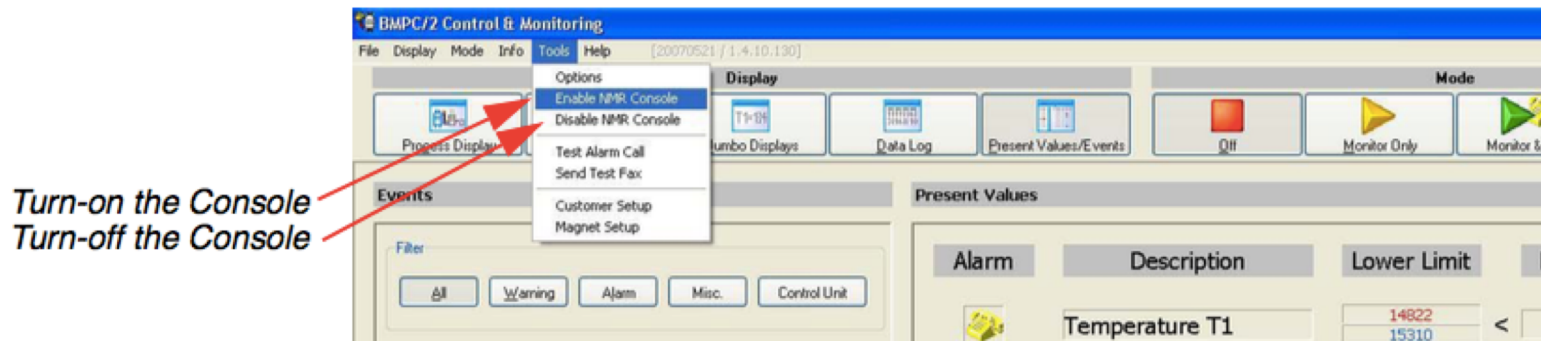Then you can access the Tools menu. Click "Enable NMR console".

Figure 14.6: Restarting the NMR Console Through Software

*Immediately turn the monitoring back on. Click "Monitor & Alarm".

Bosch:

The console can also be switched on manually. To do this, you must open the back cover of the BMPC (the side facing the magnet). The S4 switch is roughly in the middle behind this cover. Turning this on will provide the console with power.
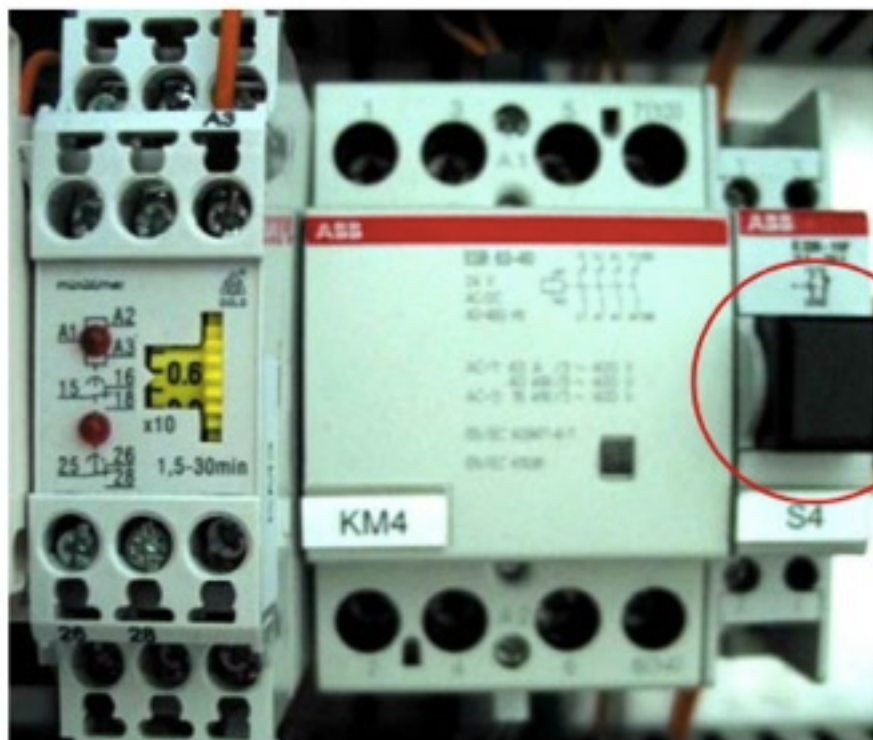
The S4 switch is used to turn on the NMR console.

Figure 14.7: Restarting the NMR Console Using the S4 Switch

Helpful Bruker personnel:
      (in the order in which I would call them)

Neil Donovan: (978)821-6721 (cell) Service engineer. Very knowledgeable about everything.

Steve Grimaldi: (978)973-1454 (cell) Our local cryo engineer.

Walter Osgood: (978)667-9580 ext 5451 (office) (978)204-4922 (cell)
      cryo engineer.

Pavel Kostikin: (978)667-9580 ext 5360 (office) (978)204-8063 (cell)
      National cryoprobe service manager.

Bob Lord: (510)683-4300
      West Coast service manager. He can find someone to help you.

Bruker general help: rover@bruker.com (faster)   or   center@bruker.com (slower)