SECNMR General Rules for Spectrometer Operation

APPROVAL

Projects are approved separately as described on our website (http://secnmr.org). Independent operators connected with a project must be approved by either John Glushka or Fang Tian. This should be done through a combination of discussions and training. This may include examples of data collected and on-site or remote training. A user manual will soon be available at: http://secnmr.org/training/manual.html . Once training is completed, an approval form will be signed by the operator, project PI and SECNMR staff member responsible for training. This document attests to the competency of the operator as well as understanding and acceptance of the facility protocols by the operator and project PI. Each laboratory with an approved project may have one or two independent operators.

REMOTE OPERATION

Remote operation of the spectrometer may be convenient however it requires a higher level of operator competency and caution. In addition to following standard rules and procedures, remote operators should provide a list of planned experiments, clear contact information including a backup contact and any instructions regarding sample preservation in case of emergencies.

After the sample has been readied by a member of the staff, all of the approved experiments should be set up and the parameters and hardware examined locally. When everything is ready the staff member will tell the remote operator to proceed. Sample changes should be planned around typical working hours.

PULSE PROGRAMS

1. Only pulse programs that have been examined and approved by the SECNMR staff can be used. Novel or undocumented sequences, including example data, should be submitted for evaluation well in advance of the scheduled session.
2. The existence of a pulse sequence in the standard Varian library (e.g. BioPack) is **NOT** a guarantee that it can be run safely. **All sequences are considered novel unless explicitly tested here.**
3. An operator should never use a pulse sequence that he is not familiar with. This is especially true with BioPack sequences which often have many variations dependent on flags and parameter settings. These sequences are also being updated and local-site versions may be different from SECNMR versions.

HARDWARE AND SOFTWARE SETUP CHECKLIST

1. An on-site operator must go through a hardware checklist prior to running samples.
2. Pulse width calibrations should be done manually using approved pulse sequences and established amplifier power levels.
3. Potentially destructive elements in pulse sequences, such as decoupler and spin-lock power levels and durations, must remain with the limits established by the facility.

This document is available online at: http://secnmr.org/policies/rules.html