

# Coping Without the ILL

Scheduled user operation started in January at the upgraded Hahn-Meitner Institute's 10 MW neutron scattering facility in Berlin following the lengthy delay owing to environmental questions. F. Mezei, the HMI's Director of Research, reports that 200 proposals were submitted last autumn for access to the 11 instruments: three turned out to be heavily overbooked (notably the powder diffractometer and small-angle scattering instruments) and the remainder operate essentially at full capacity. Total beam time will increase from 5000 h/y on the 11 instruments in 1993 to 6000 h/y on 14 instruments in 1994. Until mid-1994, while the ILL's High Flux Reactor in Grenoble is being refurbished, the policy is to assign 2/3 of the time to external users in such a way that 50% is for roughly six-month, single user, "single shot" ILL-type experiments. The ILL, Europe's largest neutron facility, received before the HFR shutdown some 1200-1600 proposals each year for 6400 h/y beam time on some 30 instruments.

L. Rosta who coordinates the Budapest Neutron Centre [EN 23 (1992) 60] at the Central Research Institute of Physics (KFKI) writes to say that the centre's reactor went critical in December. Regular operation at 10 MW is foreseen for May 1993 when four neutron scattering instruments will be available to external users (at the generally accepted level of 2/3's of beam time). International funding to top up government support for both instrument and operating costs is being sought. Elsewhere in east and central Europe, the research reactor at the Institute of Nuclear Physics in Rez, Czech Republic, with a only a few neutron scattering instruments is still running, but the long-term status is undecided.

Reopening of the KFA Jülich reactor which has been planned at regular intervals remains elusive (the shutdown has lasted for several years owing to corrosion problems). But user access for beam time is largely unaffected as most external collaboration involved instrument building. Denmark's Risø National Laboratory received a grant of about 2 MECU under the EC's Large Facilities Programme to make about 30% of the spectrometer time at its 10 MW DR3 reactor available to external users for two years. During the first year, the number of proposals has exceeded the available beam time by about a factor 2, but more users can be accommodated in the future, because the recent replacement of the neutron guide has increased the flux at some of the cold-neutron spectrometers by factors of 3 to 7. At a well-attended meeting in January, the users expressed their satisfac-

tion with the programme and supported the application to continue it at about the same level under the Human Capital & Mobility Programme. Four other neutron centres (ISIS, HMI, Saclay, Siloe) have been preselected under HCM and will receive financial support for providing access over three years. A.R. Mackintosh who directs the Risø programme comments that the new HCM rules calling for 40% to be spent on travel and subsistence are unnecessarily rigid.

The ISIS pulsed source at the Rutherford Appleton Laboratory, UK, continues to be heavily oversubscribed with 600 proposals each year for approximately 13 instruments. The 14 MW Orphée source at Saclay in France with 400 proposals annually for roughly 22 instruments is not very specific about outside users. But interest has increased considerably since the ILL shutdown, and there is a major effort to help groups from the former Soviet Union.

The building, core shield, and a mock-up of the core for a 100 MW ILL-class reactor called PIK have been built at the large ( $\approx 1000$  staff) St. Petersburg Nuclear Physics Institute in Russia. It was originally proposed as an All-Union facility with  $\approx 40$  beam lines and  $\approx 80$  instruments, mostly for neutron scattering work. Completion, costing 30 M\$US in 1991, of the 20 year old project is seen as an international affair, but ministerial-level visits last year to Germany and France have not led to any commitments. The institute's neutron scattering group is probably the strongest in the FSU; its 15 MW reactor equipped with five specialised instru-

ments is still operating — but not as a user facility. There are, however, collaborations with the HMI and with Finnish groups.

The interesting IBR-2 pulsed reactor source (100 MW, 200 ms pulse) with about 10 instruments at the JINR Dubna in Russia is reportedly offering access to external users. The major new international commitment is a single instrument run by a group from Germany as part of a bilateral agreement; German groups also enjoy extensive access. Hungary's Central Research Institute for Physics has collaboration agreements to build two instruments.

Another important Russian research reactor is the 10-20 MW device at the Ministry of Atomic Energy's Kurchatov Institute near Moscow. It has  $\approx 10$  beamlines and  $\approx 20$  instruments, but a decision to close the reactor is likely this decade as the institute now funds itself in a populated urban area. Finally, there are a small reactors for neutron scattering in Kiev at the university and at Alma-Ata.

Regarding the ILL itself, refurbishment of the HFR is proceeding on schedule and an announcement of conditions for Collaborating Research Groups (CRG's) to set up instruments is imminent. The ILL Steering Committee is discussing further participation by countries other than the three Associates (notably with Austria, Spain and Switzerland — the three partners). Dr. M.A. Wilkins, from the UK's SERC and head of the UK delegation, who this year chairs the Steering Committee, commented that the situation is being looked at afresh as the ILL must balance demand with the facilities planned. Special arrangements with the EC are not envisaged and participation with non-partner countries is not excluded.

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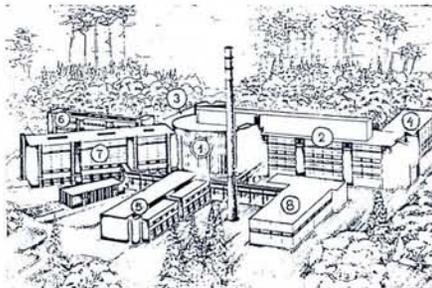
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Closing Date: 30 March 1993



An artist's impression of the uncompleted PIK neutron facility near St. Petersburg.