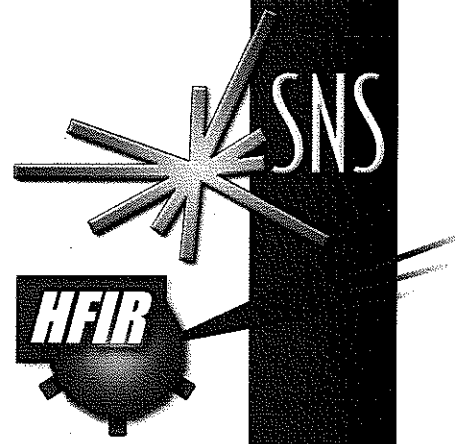


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# General Policies for User Access to the Instruments in the Neutron Sciences Directorate

April 2007



NEUTRON SCIENCES

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**GENERAL POLICIES FOR USER ACCESS TO THE INSTRUMENTS  
IN THE NEUTRON SCIENCES DIRECTORATE**


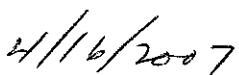
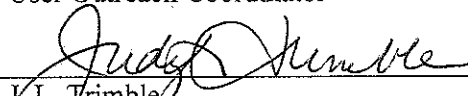
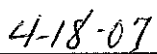
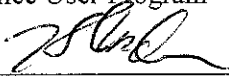
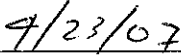
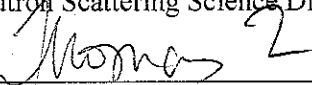
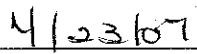
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April 2007

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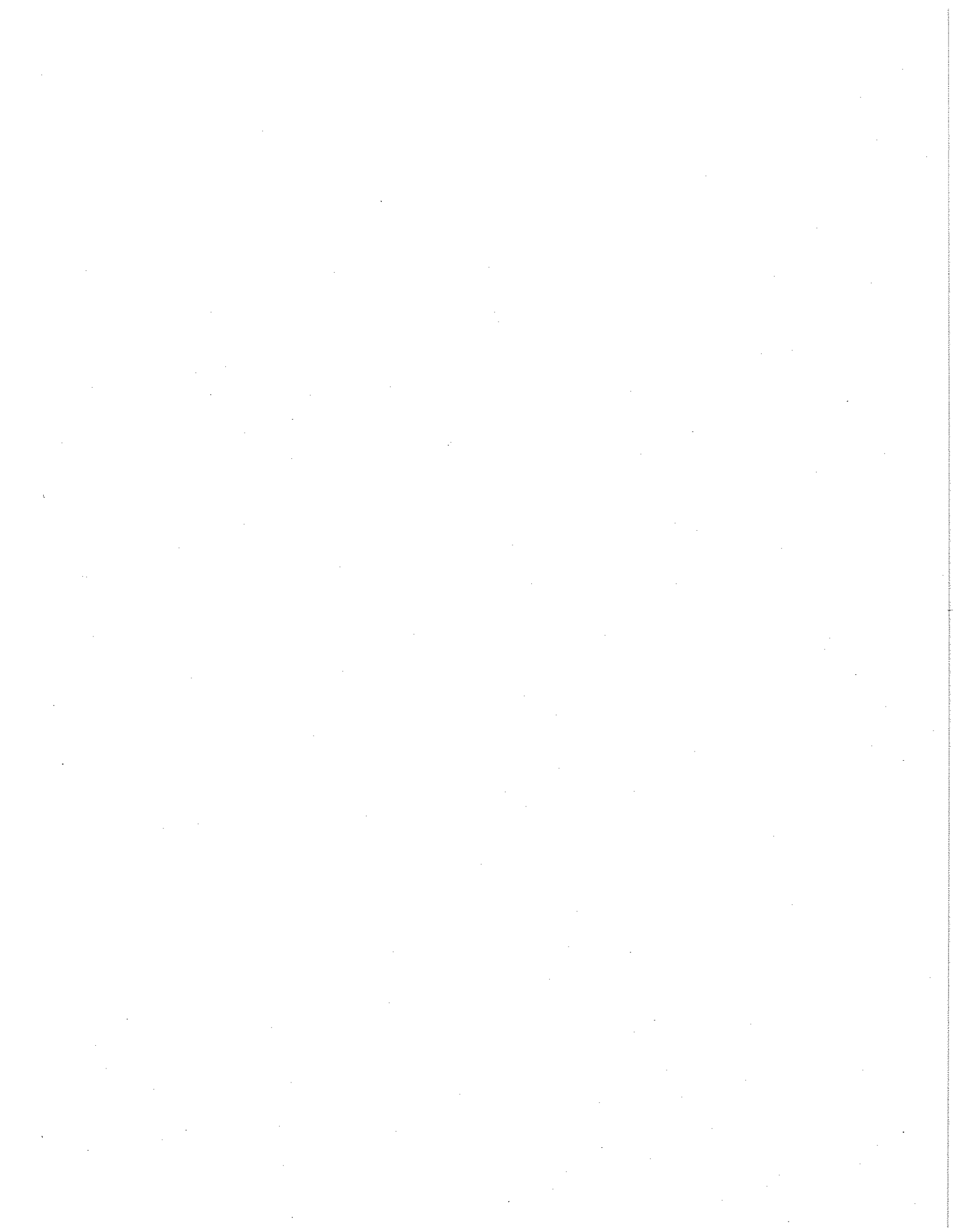
**GENERAL POLICIES FOR USER ACCESS TO THE INSTRUMENTS  
IN THE NEUTRON SCIENCES DIRECTORATE**

April 2007

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## 1. PREAMBLE

The mission of the U.S. Department of Energy Office of Basic Energy Sciences neutron scattering facilities is to support users in performing outstanding research in a manner that protects the workers, the public, and the environment. To this end, each facility must have:

- a source that delivers neutrons with high reliability;
- a suite of instruments that are state-of-the-art;
- a skilled staff to support the safe operation of facility, instruments, and users; and
- a rigorous peer review process to assure scientific output of the highest caliber.

This document addresses the policies for user access to the facilities and instruments of the Neutron Scattering Science Division (NSSD).

## 2. PEER REVIEW AND ADVISORY BODIES

One key to delivery of outstanding science is rigorous peer review that is fair, clear, expedient, and sensitive to the needs of users. The NSSD envisages advisory committees of the following kind.

### 2.1 SCIENTIFIC ADVISORY COMMITTEE

The NSSD will have a Scientific Advisory Committee (SAC) that advises the NSSD Director on policies related to science strategy and to the optimization of the quality and quantity of the scientific productivity of the Spallation Neutron Source (SNS) and the High Flux Isotope Reactor (HFIR) user facilities. The SAC will be composed of distinguished scientists from both inside and outside the neutron scattering community. Appointments to the SAC will be made by the Associate Laboratory Director of the Neutron Sciences Directorate.

### 2.2 USERS' EXECUTIVE COMMITTEE

Together, HFIR and SNS will have a Users' Executive Committee (UEC) or equivalent body that is elected by the user community at large and operates independently of facility management. The UEC will serve as the official voice of the user community in its interactions with the facility management. The UEC will elect its Chair and Vice-chair from among its own members, and the UEC Chair will automatically have an *ex officio* seat on the SAC. The SNS HFIR User Group Executive Committee serves this purpose.

### 2.3 PROPOSAL REVIEW COMMITTEES

Evaluation of the scientific merit of General User proposals will be carried out by appropriately constituted Proposal Review Committees (PRCs) with input on feasibility of the proposed measurement and beamtime requirements from the scientific staff of the facility. The rank order of scores generated by the PRCs will be the primary input in the allocation of General User beamtime. The PRC will also provide feedback to the investigators on the quality of their proposals and, where relevant, on perceived weaknesses. The PRC will be predominantly comprised of external scientists (without affiliation to the facility or its associated contracting organization) with expertise in various research fields using neutron scattering. Appointment to the PRCs will be made by the NSSD Director or designee based on nominations received from the user community and suggestions from the facility management and with input from advisory committees..

### 3. EVALUATION CRITERIA

The evaluation criteria used in the peer review procedures for all users will take as their starting point the criteria proposed by the International Union of Pure and Applied Physics in its recommendations on the operation of major user facilities (<http://www.iupap.org/ga/ga22/majfacil.html>). These are:

- scientific merit,
- technical feasibility,
- capability of the experimental group, and
- availability of the resources required.

These criteria may be supplemented with additional requests, for example, to justify the need for special equipment or to satisfy safety and environmental concerns. Special consideration will be given to encourage and support first-time users so they can compete effectively in the peer review system. Preference will be given to proposals that utilize the unique capabilities of a facility. The paramount criterion will be scientific merit. All user proposals will have a feasibility and safety review carried out by facility staff. If a proposal is considered not technically feasible or has safety concerns requiring time and resources to resolve, it will be returned to the proposer with appropriate comments including suggested changes.

### 4. MODES OF USER ACCESS

To deliver outstanding science there must be access modes that are sufficiently flexible so as to be responsive to user needs. There are two basic modes of user access, General User access and Partner User access, each with variable scope.

#### 4.1 GENERAL USER ACCESS

General Users are individuals or groups who need access to beam time to carry out their research using existing beamlines and supplying samples, and perhaps custom sample environment or instrumentation for the duration of their experiment. General Users apply for access by submission of a proposal that is evaluated by one of the PRCs. For some instruments a portion of General User time may include time identified for specific purposes such as for fast access, director's discretionary time, or for time to be used in time-critical experiments involving sample preparation or collaborations with other ORNL user facilities. All of these requests will be evaluated through peer review.

#### 4.2 PARTNER USER ACCESS

Partner Users are individuals or groups who not only carry out research at the beamlines but also enhance the capabilities or contribute to the operation of beamlines. Typically they develop the facility instrumentation in some way, bringing significant outside financial and/or participate in intellectual capital into the evolution of the beamlines, or contributing to the operation of the beamlines. These contributions have to be made available to and benefit the General Users as well as the facility. In recognition of their investment of either resources or intellectual capital, and in order to facilitate and encourage their involvement, Partner Users may be allocated a percentage of beam time on one or more beamlines over a period of several years with the possibility of renewal. Up to 20% of the available beam time on an instrument may be allocated to Partner Users.

Proposals from Partner Users may be selected by using one of two mechanisms. The Partner User Group may perform science reviews (review role) to identify proposals to be included in its portion of the beam time allocation. Alternatively, the Partner User Group may solicit proposals from its members



(marketing role) and have them evaluated as part of the General User science review process; if the proposal is ranked high enough for selection as part of the General User program it does not count as a Partner User proposal, but if it is not selected, then it will be part of Partner User allocation. In either case, any unallocated portion of the Partner User allotment will then be made available to the General Users. Science reviews will be conducted of the use of the Partner User allocation every three years. All proposals will undergo feasibility and safety reviews. Once the Partner User Group selects the mechanism (review role or marketing role), only one change is permitted during the duration of the allocation.

## 5. PROPRIETARY, NON-PROPRIETARY, AND CLASSIFIED RESEARCH

Users of the facilities include academic, industrial, and government scientists and engineers. While the vast majority of user research will be in the public domain, and so must be disseminated by publication in the open literature, there may be access for a reasonable percentage of proprietary research which utilizes these unique facilities for economic benefit. Users conducting proprietary research may access beam time as either General Users or as Partner Users. Full cost recovery will be obtained for proprietary research, and efforts will be made to secure appropriate intellectual property control for proprietary users to permit them to exploit their experimental results. Experimental proposals will undergo the feasibility and safety review processes. Science reviews will be conducted according to the mode of access and will emphasize the programmatic impact of the proposed research along with the utilization of the specific capabilities of these ORNL facilities.

Classified research will be conducted in accordance with established ORNL and DOE policies. Experimental proposals will undergo the feasibility and safety review processes. Science reviews will be conducted as part of General User access and will emphasize the programmatic impact of the proposed research along with the utilization of the specific capabilities of these ORNL facilities. Costs associated with security requirements for classified research will be recovered from the user.

## 6. BEAM TIME ALLOCATION, SCHEDULING, AND RECORDING

Allocation of beam time for General Users will be done based on the rankings provided by the PRCs. Partner Users will manage their own scientific program and allocate beam time among their members in a process approved by NSSD. A central beam time schedule will be maintained in the facility User Office based on expert input from facility technical and beam line staff and Partner User representatives. The facility management will have ultimate responsibility and accountability for effective and efficient utilization of beam time on all beam lines at the facility.

About 5% of the available beam time at each of the operated beamlines at SNS will be allocated for in-house scientific staff to carry out their research programs. All beam time will be scheduled by the NSSD, and any Partner User or in-house beam time not used will be allocated to General Users. Available beam time does not include time for instrument calibration or scheduled instrument or facility maintenance; it only refers to the time available for scientific experiments.

**Table 1. Beam time allocation of instruments at SNS**

Purpose of time	%
Instrument scientist	5
Partner users allocated time (maximum)	20
General users time (minimum)	75
Total time	100

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