Minutes from Dissemination Working Group

U. S. Nuclear Data Program

April 28, 1998, Brookhaven National Laboratory

As was stated in the recent report of the Paul/Parker Panel,

" The mission of the U.S. Nuclear Data Program is to maintain the currency and viability of the nuclear structure and nuclear reaction data bases as a national resource, to respond to and address the evolving priorities and needs of its user communities, and to make this national resource available to the users of nuclear data in a straightforward and user-friendly manner."

Thus, the second day of the recent USNDP meeting at BNL was devoted to a discussion of nuclear data dissemination activities. This session was chaired by Rick Norman and was attended by essentially all of the participants in both the Nuclear Structure and Decay and Nuclear Reactions Working Groups.

The chairman briefly reviewed the variety of dissemination methods that have been and/or are currently being used by members of the USNDP in order to provide users access to nuclear data. These include hard-copy publications such as Nuclear Data Sheets, the Table of Isotopes, and specialized laboratory reports. CD-ROMs have also been used to distribute the Nuclear Science References database. Over the past several years, however, most of the nuclear data dissemination effort has been devoted toward internet-based techniques.

Reports on data dissemination activities were then given by representatives from seven institutions.

INEEL: Dick Helmer reported that a CD-ROM version of Russ Heath's gamma-ray catalog and spectra is being prepared and will be completed by the end of FY98.

ORNL: Michael Smith reported on the nuclear astrophysics and nuclear structure data dissemination activities at ORNL. The RADWARE software package is now available through ORNL, which provides researchers the ability to make nuclear level-scheme information easily available to the community prior to publication.

SJSU: Craig Stone reported on progress in the of development of the MacNuclide program. Version 2 is currently in beta testing.

TUNL: Ron Tilley described the work of the TUNL group in providing access to the nuclear structure data for A=3-21. This is done via hard-copy publication in the journal Nuclear Physics as well as via the World Wide Web.

BNL: Tom Burrows described the activities of the NNDC in publishing nuclide and A-chain data in Nuclear Data Sheets, collaboration for the production of the CD-ROM version of NSR, as well as for a variety of WWW-based methods to provide user access to the ENSDF, ENDF, CINDA, NSR, etc. databases.

LANL: Bob MacFarlane reported on the status of the T-2 Nuclear Information Service at LANL. ENDF-formatted reaction and decay data, astrophysics data, and a variety of basic educational materials on the field of nuclear data are available from LANL via the WWW.

LBNL: Rick Firestone described recent activities at LBNL. These involve hard-copy publications (8th edition of Table of Isotopes), CD-ROMs (collaboration on NSR, 1998 update to TOI), and a variety of WWW-based activities (Isotope Explorer, Nuclear Astrophysics data, etc.).

During and following the center reports, there was discussion over the issue of whether a single dissemination method (e.g. WWW) could satisfy the needs of all users of nuclear data. The consensus of opinion was that a single approach was not adequate, and that hard-copy, CD-ROM, and internet methods continue to be useful tools to provide data to our users.

From the center reports, it is clear that many very nice and widely-used tools have been developed to provide users with access to nuclear data. Although it is difficult to quantify the usage very precisely, it is clear that there are thousands of downloads per month of nuclear data from the various USNDP websites.

However, it was also recognized that there has not been enough communication and coordination within the USNDP regarding this work. Thus, there has been some duplication of effort. In addition, it may not be apparent to a user that the information he or she retrieves is the product of the work of the whole USNDP. Thus a series of actions were initiated in order to address these issues.

1. A small group headed by Rick Norman will plan and review future dissemination activities.

2. Under the leadership of Tom Burrows, a unified USNDP website will be developed.

3. Frank Chu will lead a collaboration on the development of dissemination software.

4. Craig Stone will lead an effort to improve database connectivity.

The Nuclear Reactions Working Group came up with the following list of dissemination issues or needs:

1. Cross section data related to the production of radioactive beams should be archived and distributed on the World Wide Web.

2. Computer codes used for calculating nuclear reaction cross sections should be archived and distributed on World Wide Web.

3. The CSISRS database should be made available to users on the World Wide Web.

These items will become future activities for the Dissemination Working Group.