

MEMO CP-A/151

15-Mar-2004

To: **Distribution**
From: **F.E. Chukreev**
Subject: **MEMOs CP-C/336 and CP-D-385.**

I believe that two axioms are the base of NRDC data exchange:

1. Each Center can compile the data, which are needed for its users.
2. Each Center can save in its collection the data from EXFOR, which are interesting for its area.

I would like to remember, that scope priority changes constantly. Some years ago astrophysical data have lowest priority. Now the data have highest priority. If scope limit from MEMO CP-D/385 will be assumed very interesting data from Nucl. Phys. A658 (1999) 47-66 (see ENTRY A0099) "Systematic experimental survey on projectile fragmentation and fission induced in collisions of ^{238}U at 1 A GeV with lead" will be lost. When similar data will be assumed as needed by all NRDC community, data tables will be lost and we will be forced to scan a little figures again.

Another example:

"Neutron multiplicity distributions for 1.94 to 5-GeV/C proton-, antiproton-, pion-, kaon- and deuteron induced spallation reactions on thin and thick targets." The paper has been published in PR/C,56,1909,1997 and compiled as O0848. The data tables were received from authors for all data. If we refuse to compile all the data now, we will not receive data tables in future, when NRDC community will increase scope for antiproton, kaon and another beams.

My conclusion: First axiom must be saved.

But second axiom must be saved too obligatory, of course. In order to save the axiom MEMO CP-D/385 proposed:

- If a centre wished to compile such additional data (permitted by the format but not part of the regular exchange agreement), they should do so using different centre identification characters, and the other centres can then decide whether or not to include these transmissions in their local database. This practice is referred to in memo CP-C/336. As an example, the EXFOR "O" series (by NEA/DB + CAJAD) was originally introduced as a separate medium energy transmission series (in this case, all centres were interested, because the files contained largely "non-exotic" data; however, content and interest have changed lately).

The proposal is not suitable.

Why? We have 15 free letter for Centre identification and (may be?) 5 digits only. It is not enough for nuclear physics experiment now.

Therefore, I would like to remember, that NRDC community had a trial for data separation, which was proposed by H. Munzel. He proposed to use free space in SUBENT record to separate the data. Some times ago NRDC refused from the method.

We have ten free space in SUBENT (as minimum). If we return to Munzel proposal we will have distinguish up to 260 data types. Naturally, we must have agreement for coding of data types.

Obviously, Nuclear Data Section must save all ENTRIES and SUBENTRIES.