

MACHINES AND AREAS COMMITTEE

Summary of meeting No. 59 - May 24, 1976

Present

E. Asseo, O. Barbalat, D. Bloess, F. Bonaudi, A. Daneels, D. Dekkers,
M. Georgijevic, C. Germain, P. Germain, W. Hardt, L. Hoffmann,
G. Jennings, H. Kugler, B. Kuiper, J.H.B. Madsen, G.L. Munday (chairman)
F. Perriollat, G. Plass, K.H. Reich, W. Remmer, Ch. Rufer.

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1. PS controls improvement programme

The main lines of this project were already discussed at a previous meeting (MAC No. 55) and the technical aspects described in the report PS/CCI/Note 76-33 have already been presented and discussed with experts from other divisions and in a meeting of the division staff.

The discussion was therefore limited to some general points.

This project requires the collective and collaborative support of all the groups but with a single project leader. Personnel resources exist in the division to carry on this project but they will have to be made available at the expense of lower priority work. The people involved will remain administratively in their group since they are responsible for group equipment, but they will devote part of their time to the project. If new important projects appear in the future, priorities will have to be rediscussed then. This procedure received the agreement of all the group leaders.

In the proposed scheme on the process side, there is basically one computer per accelerator. It was suggested to have more independent computers, for the ejection system, for instance. Having more small computers closer to the process capable to stand alone would improve the reliability of the system. This point was well acknowledged, the present proposal is a compromise between complexity

and reliability and the final details of the lay-out are still under study. In the plan, the Linac is only scheduled at the end so that there is plenty of time to understand and adapt the controls to the needs of the process as they will appear during the running-in, while not interfering with the construction and the commissioning of the new machine.

It was repeated that mobile consoles, although having free access for data acquisition will be submitted to MCR veto for data control. Access by address giving theoretically access to the whole system will be limited to equipment being newly installed.

The overall reliability of the system was discussed, the various concepts proposed to ensure "graceful degradation" rather than complete failure in case of component breakdown were pointed out.

The personnel effort for maintenance was discussed. It appears low compared with other machines but precise numbers are difficult to agree on as they depend very much on the definitions.

For the transition period it is proposed to introduce "slices" during each major shut down. With the present PS running time of 6000 - 6200 h/year the available time for this work seems about right. Everything will be done to minimise the risks which have to be taken for change-over at a time (1978) when the SPS North Area will be brought into exploitation. In case of serious trouble, the possibility will always exist to plug back the cables and return to the old system.

While guaranteeing a definite improvement, it was also stressed that one should proceed with a homogenous implementation, avoiding to improve excessively the first installed slice at the expense of the following ones.

With the reservations made above which need not be resolved now and can be further discussed as the work advances, the project received the backing of the whole division and will be presented to the CERN executive board.

O. Barbalat

Distribution

PS Scientific Staff