

file name

CERN/SPSC 84-37  
M377  
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TO/A : SPS Committee

From/De : UA2 Collaboration

Subject/: Attitude of the UA2 collaboration towards document M376  
Objet

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In a recent document (CERN/SPSC 84-30) we submitted a number of modifications and additions to the present UA2 detector for approval by the SPS Committee.

The choices made in this proposal result from our assessment of the major physics issues on which we want to remain competitive and from the constraint that the upgraded UA2 must be operational in 1987. In particular, while priority is given to missing transverse energy measurement, the improvements of the quality of electron identification and of jet energy resolution are limited by the constraints imposed by the geometry of the UA2 central calorimeter.

The replacement of the present central calorimeter would allow for a larger volume in its center, providing space for installation of transition radiation detectors. In addition the use of uranium as converter would provide a more accurate energy measurement in the case of hadron jets. This would undoubtedly significantly improve the performance of the UA2 detector in domains of very important physics interest.

We therefore consider very favourably the memorandum M376 presented to the SPS Committee, in which such a replacement is proposed. While the commitments of the UA2 Collaboration to the upgrade programme outlined in CERN/SPSC 84-30 do not allow us to be among the signees of that memorandum we wish to inform the SPS Committee of our full support to its content. We are maintaining close contacts with its signees and, in case of approval, we would have a very cooperative and helpful attitude, within the limits of our commitments, towards them. In particular we would make sure that the calorimeter replacement can take place as soon as it is ready to take data and we would encourage very close

interactions between the two groups in order to ensure as smooth as possible a transition to the new set up.

The new set-up would of course include as much as possible of the present UA2 equipment and infrastructure, and in particular the end cap calorimeters, which are designed in this spirit. A major fraction of the UA2 Collaboration would continue working with the new set up.