

M E M O R A N D U M

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To/A : Professor E. Lohrmann - DG-Division.

I. Butterworth - SPSC

From/De : B. Tallini - EP, spokesman of WA47 experiment.

Subject/: WA47 Status
Objet

Dear Professor Lohrmann,

With reference to your note (Ref. DG-DI/189), here is the information you requested concerning the present status of the WA47 experiment.

As you know, the NBB has run with neutrinos at 200 GeV in Period P6 and BEBC has taken $\sim 95'000$ ν pictures in the Ne/H₂ mixture, distributed as follows:

in half period 6A :	40'000 pictures at	6.5×10^{12} ppp
" " " 6B :	55'000 " "	4.5×10^{12} ppp

which correspond to a total intensity of $\sim 5 \times 10^{17}$ protons which, in turn should yield approximately 2000 charged current neutrino events from 200 GeV parents.

During next Period P7 - scheduled to be antineutrino running - if all goes well and assuming an intensity of 6.5×10^{12} ppp on T11 we will get ~ 400 ν cc events.

Since these numbers of events are still far from the number of events requested in our experiment WA47 we strongly suggest that Period 8 of this year be scheduled for NBB running in BEBC filled with Ne/H₂.

We would like to remind you that the $\nu, \bar{\nu}$ NBB experiments in BEBC are the only ones at CERN which have a real chance to discover gluon jets - if they exist - by studying the hadronic systems in the final states in $\nu, \bar{\nu}$ interactions.

Yours Sincerely,


Bruno Tallini
EP - Division

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