

*The SPS control room. In the foreground is the console which is now integrated into the control system. The top left and top right consoles are used for simulation runs and safety monitoring respectively.* ►

*On 23 September Academician P.L. Kapitza visited the CERN Laboratories. He is pictured here (right) down the tunnel of the 400 GeV proton synchrotron listening to the explanations of R. Levy-Mandel.*

## PS comes on again

As we reported in the September issue (page 269), on 29 August a fire broke out near the South Hall of the proton synchrotron. Besides damage due to the fire itself, there has been considerable secondary damage caused by hydrochloric acid from the interaction of burning PVC insulation and humidity. The PS power station, the power supplies for the auxiliary magnets, poleface windings and the injection correction components, timing circuits, the hydraulics of fast kicker magnet 97 and many other pieces of equipment in the South Hall extension were all damaged to some extent, depending on how close they were to the fire.

Thanks to the advice of J. Birabeau from the Surface Treatment workshop, a lot of electronic equipment was saved by fast cleaning action during the week-end following the fire. Later, two specialist firms (Reichenberger and Allianz) helped by providing the materials and the technical instructions for cleaning up the corroding electrical and electronic equipment.

Rebuilding of the damaged equipment started in parallel with the cleaning operations and on 10 September the Linac started up again with a provisional power line. On 15 September the Booster was able to take up the running with some machine experiments and the target date of 24 September for the start-up of the whole machine was achieved. This was thanks to great efforts, from both inside the PS Division and outside (mainly the Site and Buildings Divisions), helping those responsible for the damaged material.

The physics programme is being operated at a reduced level for a few weeks having started as planned on 25 September with internal targets 1 and 8 sharing beam at 19 GeV/c. The beam energy was not higher because of the non-availability of the poleface

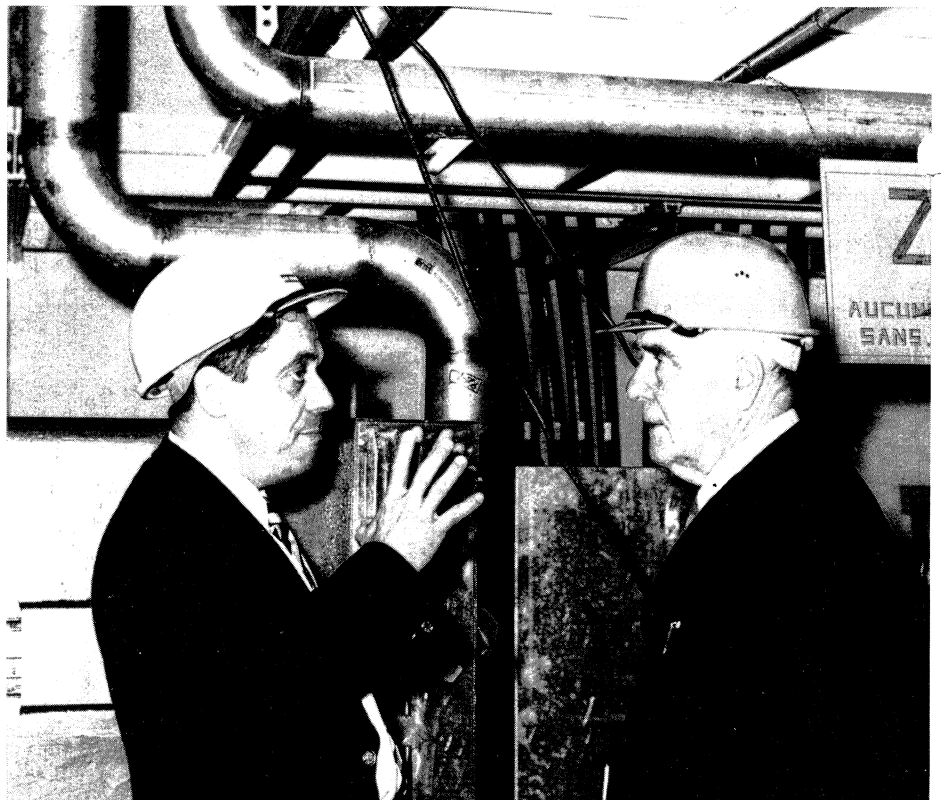
winding power supply but the spill length was increased (600 ms) and the repetition time was faster (1.8 s) than usual. Filling of the Intersecting Storage Rings was done at 15 GeV/c. It proved possible to adjust the machine intensity to the level needed by the users ( $1.5 \times 10^{12}$  protons per pulse for the internal targets and  $2 \times 10^{12}$  ppp for the ISR), despite the fact that the low energy corrections were not usable, thanks to the use of the Booster in injection. The next step, on 10 October, was to increase the energy to the usual levels of 26-24 GeV/c using a power supply provided and adjusted to the characteristics of the poleface windings supply by ISR staff. Slow ejection 62 could also start at that date. For the following run, after an eight day stop (instead of 10 days initially foreseen), it will almost be possible to carry out the normal experimental programme, though with many provisional solu-

tions. The effects of the fire are likely to be around till Christmas.

## SPS control system taking shape

One of the control consoles of the 400 GeV proton synchrotron is now connected via its computer and the message transfer system to the satellite computers which directly monitor and control the machine components. Dialogue tests with the computers have been under way since the beginning of August and the entire system seems to be operating well.

All twenty-four NORD-10 computers initially ordered have been on site for some time and seventeen of them are now installed in their destined positions. The others are in action in the laboratories and the assembly hall,



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