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SCAN-0009207

LEP note 214

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E-6

LEP TUNNEL CROSS SECTION

The LEP Tunnel Committee

The attached drawing ISR 237-1212 OB shows the main tunnel cross-section in a magnet cell, as agreed on March 25th, 1980.

The section has been taken in a region of the machine where the components appear with their maximum dimensions.

In addition to the different components and necessary services of the LEP machine, we have indicated in dotted lines the spaces reserved for a second machine with superconducting magnets and for the low and high pressure helium feed lines to be used at stage 2. The space reserved to the transport devices is sufficient to allow crossing of two vehicles.

LIST OF SERVICE COMPONENTS

No	<u>Description</u>
1.	Raw water pipe, N.D. 350 mm
2.	Pipe for magnet cooling water (return), N.D. 250 mm
3.	Pipe for vacuum chamber cooling water (return), N.D. 250 mm
4.	Pipe for vacuum chamber cooling water (supply), N.D. 250 mm
5.	Pipe for magnet cooling water (supply), N.D. 250 mm
6.	Bus-bars for sextupoles, 150 mm ²
7.	Bus-bars for QD and QF multipoles, 400 mm ²
8.	Reserve space for pumping system
9.	R.F. phase reference cable, monitoring and tuning cables
10.	380V power cables
11.	20/10 KV power cables
12.	Control cables
13.	60 KV distribution cables
14.	Cooling water pipe for 60 KV distribution cables
15.	Transport devices
16.	Conductor for induction controlled transport system
17.	Bus-bars for dipole excitation, 90 x 42 mm ²
18.	Reserve space for future cables
19.	Drain duct

