REPLACEMENT OF FIRST ELEMENTS OF GUIDES 1 TO 6

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During summer 2003, the ring system in charge of the tightness of the 8F and 9F channels has been modified. This operation requires to remove the two beam plugs. This difficult operation took place on schedule between June and September 2003 without any noticeable incident.

The beam plugs contains the first two meters of the guides G1 to G6. Their quality is the key point of the neutron flux available on the instruments in the hall of guides. These elements, installed in 1984 have lost their original quality (especially on 8F). We took this opportunity to replace them by new elements better adapted to the new characteristics of the guides. Elements of G3, G4 and G5 have been replaced by identical elements, but G1, G2 and G6 have been replaced by elements coated with supermirrors.

After the restart of the reactor we have measured substantial improvements of flux on the instruments in the hall of guides. These improvements are very dependant on the wavelength and can reach 100% at 2 nm. A mean increase of 35% has been recorded on the instruments installed on G1 and G2. On G3 and G4, the increase of flux is 11%. Guides G5 and G6 were less degraded, and instruments installed on these guides have recover their usual flux. The replacement of the first elements of G6 by elements coated by supermirror has been done in order to anticipate the change of the entire guide G6 by supermirror elements that will take place in July 2005. Only at that moment important gain of flux on this guide will be measured.

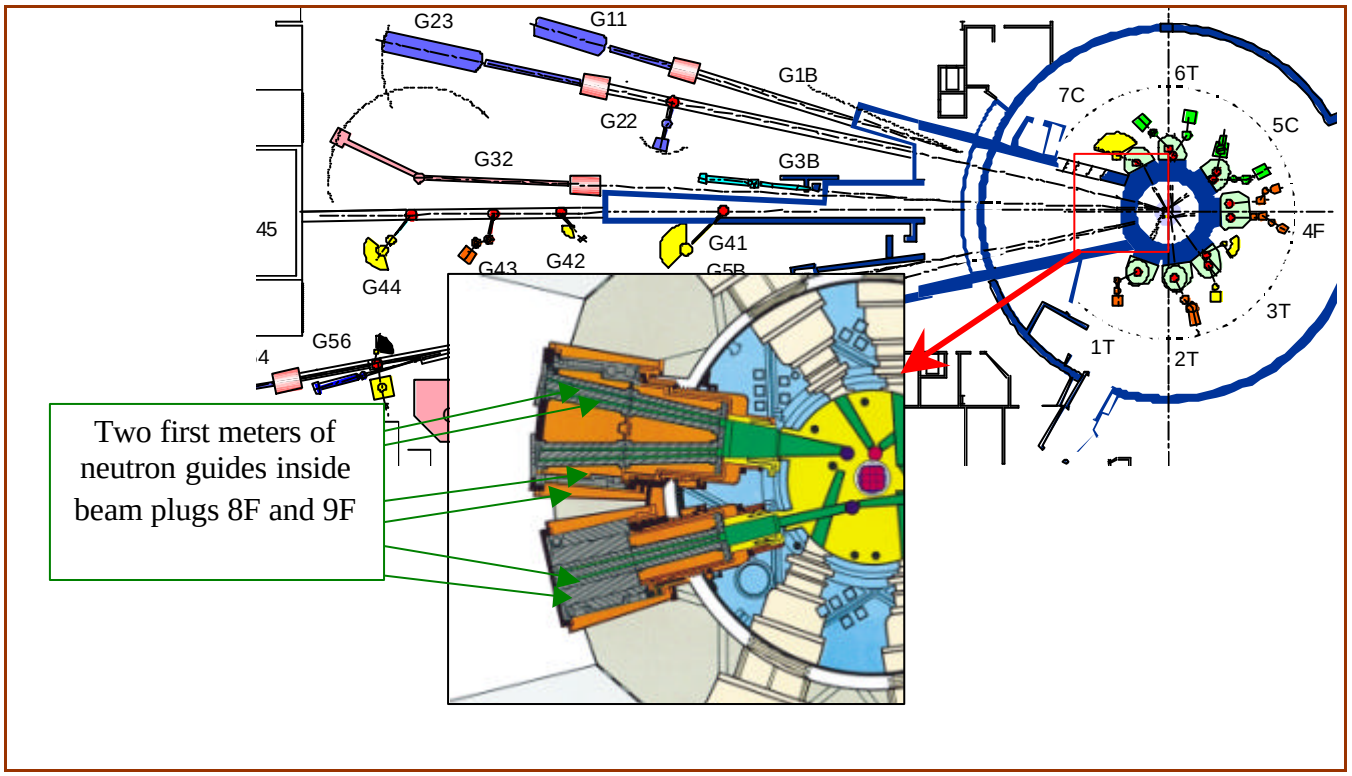

Figure. General layout of the guides elements within the 8F and 9F beam plugs.