

Diffuser Status 20 Dec as I understand it.

Iris 4 became stuck and would open only partially.

All SC magnets had been on for some time.

Manual intervention (rotating shafts by hand) wouldn't shift it.

Air supply problems eliminated by swapping pipes.

Magnets quenched.

Joe Tacon from Oxford came Friday 16 Dec.

Found that all was working normally (but field was off).

No further intervention, but plan that someone should check again this week and confirm that still OK.

Only hypothesis (guess) is that problem associated with field.

In principle all components are 'non-magnetic' although there are stainless steel rings which are slightly magnetic ($\mu \sim 1.01$) and will experience a small force in a field (gradient).

It's possible that this caused some distortion or extra friction, but not clear why would suddenly happen at 5 am after several days in field.

If diffuser seems OK now with field off, would need to test again with field on, but would be difficult to understand exact pathology and how to fix.

jhc