

SPIRE

Technical Note

SPIRE Test Facility Layout

Ref: SPIRE-RAL-NOT-000515

Issue: 1.0

Date: 08 Nov 2000

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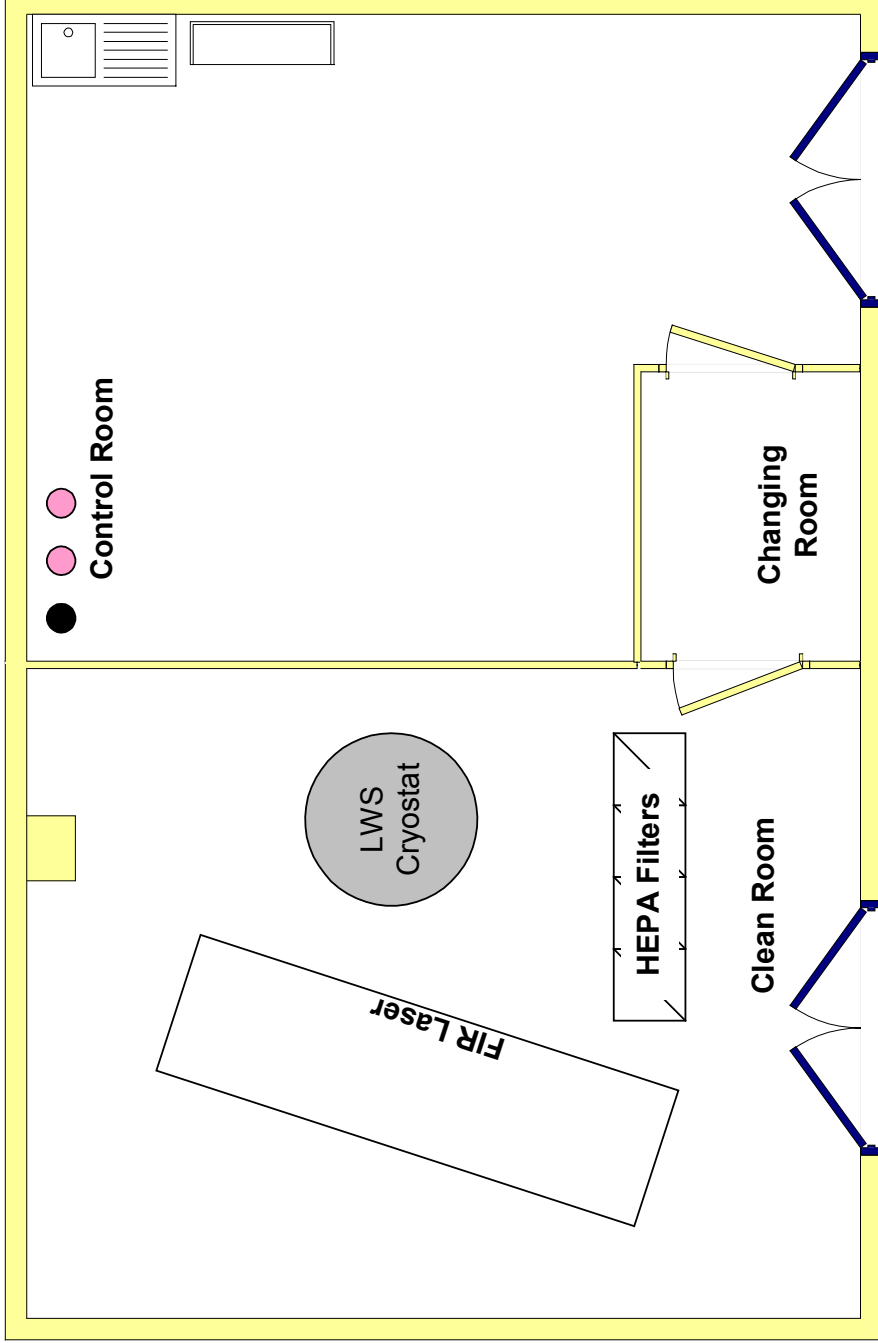
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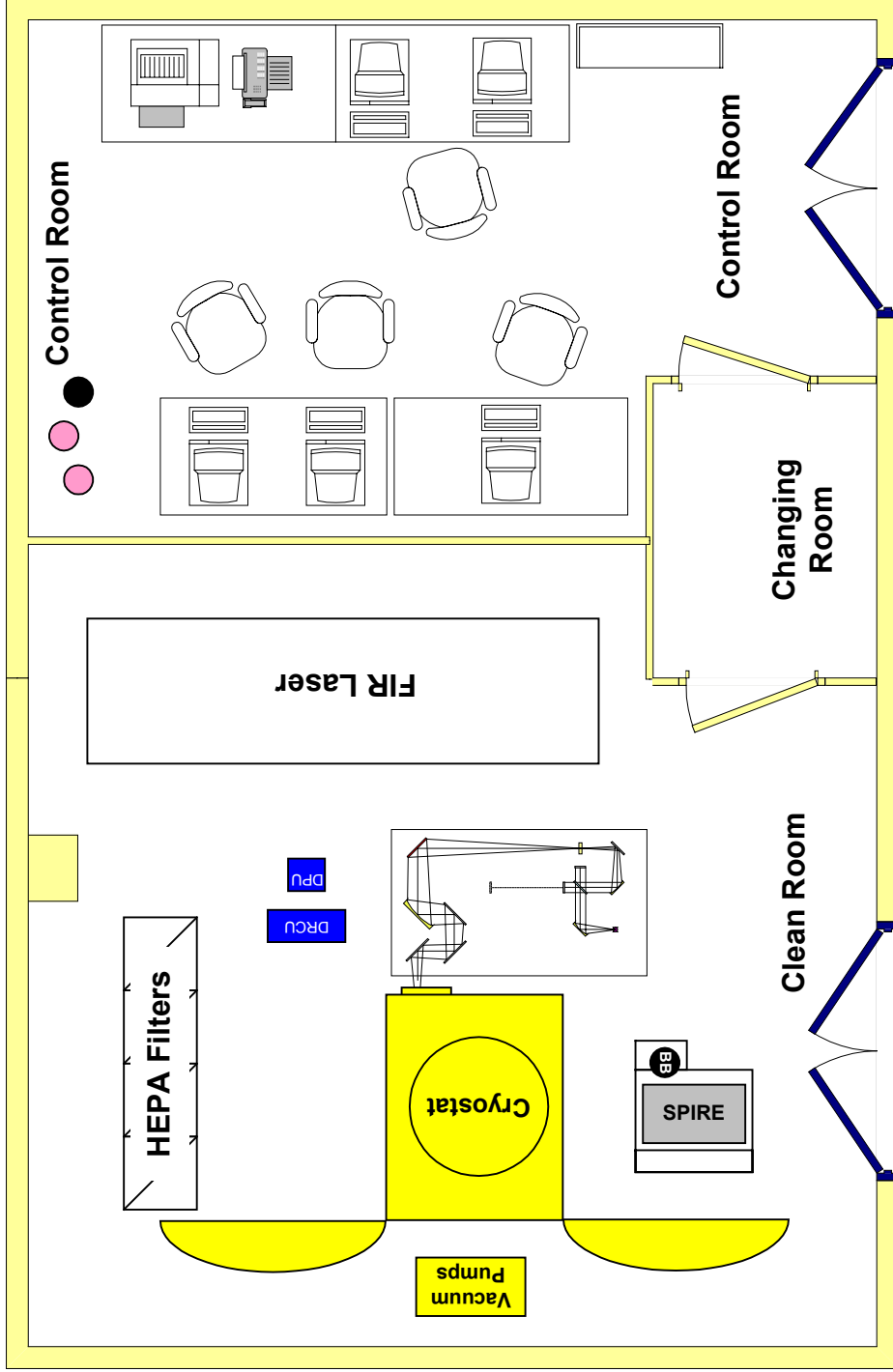
ISSUE	DATE	
0.1	03 Oct 2000	First draft.
0.2	11 Oct 2000	Second draft following comments
0.3	17 Oct 2000	Draft 2 was going to be too expensive. I've included a drawing of the existing facility for comparison.
1.0	08-Nov-00	First Issue

Scope of Document

This document shows the proposed layout of the SPIRE test facility at RAL.



Existing Layout



Proposed Plan

Notes:

1. The drawing is intended to show the general layout of the test facility and does not include details such as the routing of pipework, wires, storage etc....
2. SPIRE will not be integrated in the calibration facility due to lack of space. The instrument will be integrated and transferred to a cryostat support frame in other clean room facilities at RAL where there is more space. The instrument and support frame will be sealed and transported to the test area on a purpose built trolley.
3. The instrument and structure will be brought into the clean room through the main doors and NOT the changing room. There will not be enough room to do it any other way.
4. Once in the clean room the support frame containing SPIRE and the cold blackbody will be aligned with the tank and then moved into position on rails. In the tank the structure will be jacked onto the low conductivity supports and the rails and trolley removed.
5. The doors of the cryostat will open on hinges.
6. There will be no workbenches in the test facility. There isn't enough room. Workbench space will be made available in a nearby laboratory.
7. The filtering system should ensure class 1000 for the whole room and at least class 1000 through the test chamber. Access to the clean room will be limited to a few essential personnel at any time.
8. The pumping system could be mounted on a trolley that can be moved out of the way when not in use. Having vacuum pumps within a clean room is probably not best practice, though contamination could be minimised by using adequate filtering and procedures.
9. Site regulations prevent use of the stairwell adjacent to the left-hand wall for use as a plant room. This would constitute a major fire risk.
10. The changing room will not be altered.