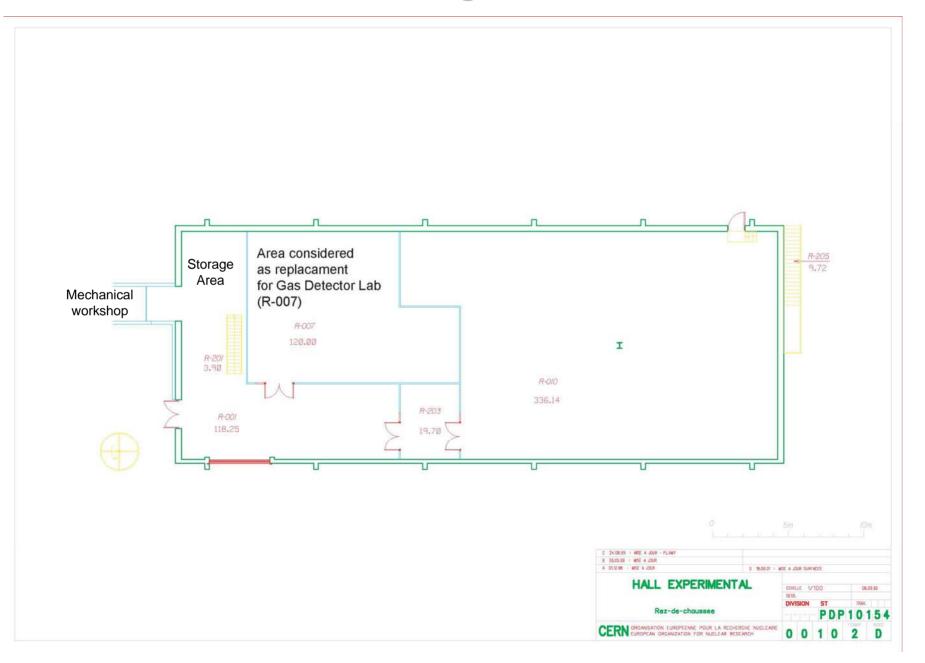


New Gas Detector Development Lab

Leszek Ropelewski PH-DT2-ST

Building 154



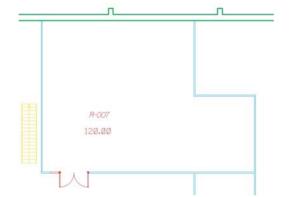
Building 154 R-007











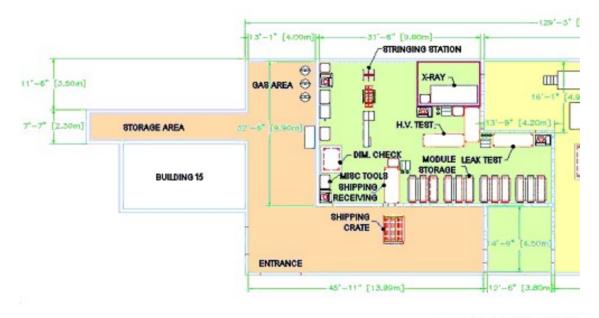








Building 154 R-007



2014E 1: TEMPERATURE AND HUMBITY

Building 28 - Gas System



Gas Hut

Gas Hut Distribution



Exit Lines, Gas Sensors, Ventilation



Gas Mixing Units



Gas Exit Lines



Ventilation



Safety System

Building 28 - Labs



Test Bench



X-Ray Shielding, Water Cooling



Grounding



Air Conditioning







Power Distribution

Building 28 - Clean Room













Building 28 - Support Infrastructure



Hazardous Materials Storage with Ventilation



Electronics Assembly and Test Area



Mechanical Workshop

New Gas Detector Development Lab

Systems:

Gas System Irradiation (X-Rays Tubes) Systems Electrical System Air Circulation System Water Cooling System Computer network

Test Areas: Flammable Gas Test Area Non-flammable Gas Test Area Large Detectors and Detector Systems Assembly and Test Area Electronics Assembly and Test Area

Support Areas: Clean Room Mechanical Workshop Hazardous Chemical Materials and Radioactive Sources Storage Area Storage (mechanical, electronics, detector components, detectors)

Systems

Gas System:

Gas Hut (with 7 gas lines – 3 for flammable gases) – 1 Nitrogen Gas Distribution Panels in the Lab Gas Line to Test Areas Exit Lines to the Roof Ventilation System from the Flammable Gas Area Gas Detection and Interlock System

X-Rays Tubes:

Protection Shield Boxes Safety Interlocks

Electric System:

Verification of Power Consumption Safety Switch Ground

Air Circulation System:

Verification of T Stability - Power Consumption Balance

Areas

Flammable Gas Test Area:

Tent Ventilation – Gas Evacuation System Safe Electric Infrastructure

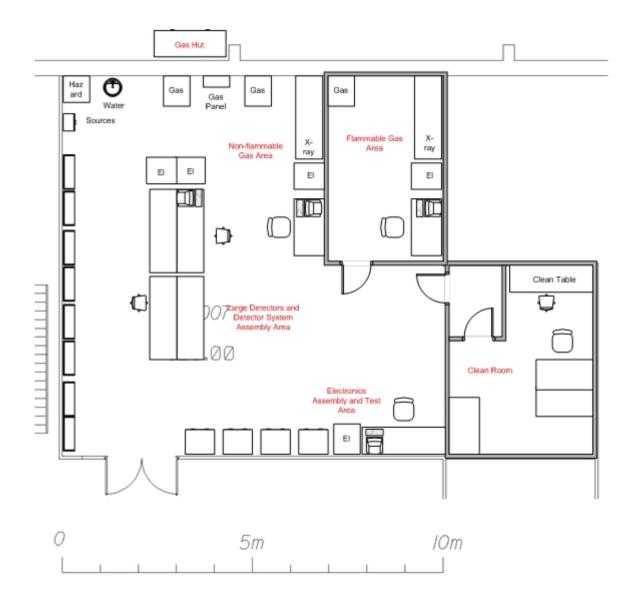
Clean Room:

Room Walls Humidity and Temperature Control Nitrogen Supply

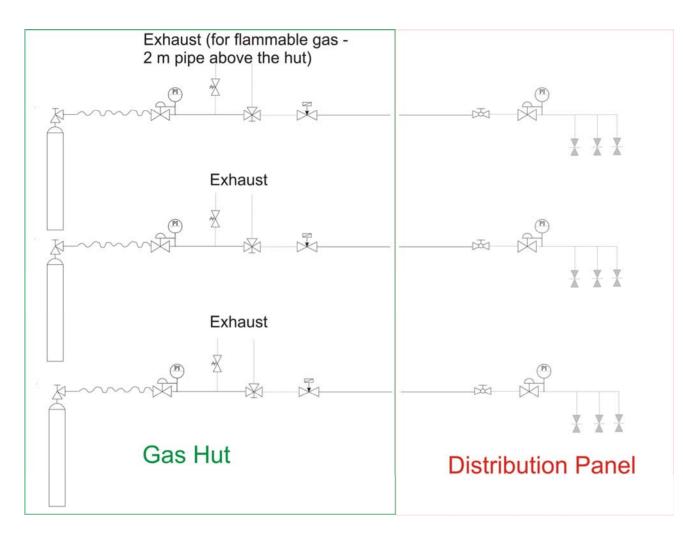
Hazardous Materials Storage:

Hut Ventilation – Gas Evacuation System

Building 154 R-007



Gas Distribution System



Nitrogen Carbon Dioxide Helium Argon Mixture non-flammable

Mixture flammable Ethane Methane DME Isobutane