

Radio-metallurgy Laboratory (RML) hot cell facility:

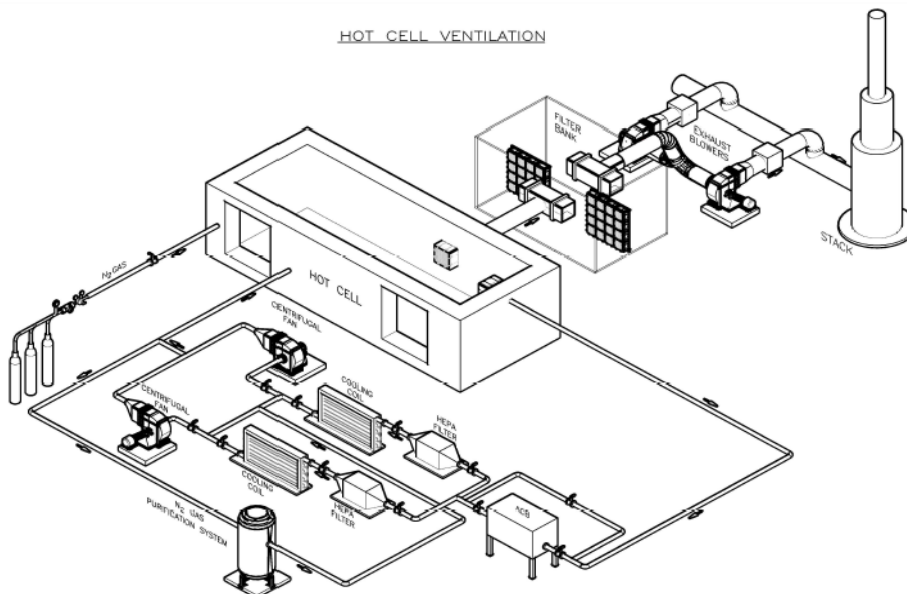
- ❑ Dismantling of subassemblies irradiated in FBTR,
- ❑ Post Irradiation Examination (PIE) of irradiated fuel & structural materials,
- ❑ Dispatch fuel to other laboratories for reprocessing & chemical analysis,
- ❑ Dispatch of the structural materials to CWMF for disposal

The objectives of RML hot cell ventilation are:

- ❖ Supply of high purity low moisture nitrogen gas to the hot cells,
- ❖ Removal of heat generated inside hot cells during PIE,
- ❖ Maintenance of lower pressure inside than the surrounding areas,
- ❖ Prevention of radio-activity build up inside the hot cells

Salient features of Hot cell ventilation system

- Closed loop type ventilation- Inert gas (N₂) recirculation loop (IGRS loop),
- Hot cells are maintained the pressure of -20mm to -30mm WC less than operating area.
- Can support once through air ventilation when required,
- Nitrogen with Moisture < 100ppm & Oxygen < 1%,
- 100% standby systems in Power & Dynamic pressure balancing.



Maintenance and upgradation of ventilation system

- Breakdown maintenance of venti-blower of IGRS loop.
- Introduction of a fast vent line to the hot cells and an additional safety set-up by implementing an emergency backup evacuation system.