

## **Architectural Plans required for Nuclear Medicine suites and Radioisotope Laboratories (research, radioimmunoassay, pathology, etc)**

Copies of the following Architectural Plans (or of their modifications) are required by the Radiological Council and should be submitted for approval in the planning stages to avoid structural alterations being required after completion building:

- Layout of rooms and facilities, showing structural shielding where relevant.
- Hydraulic plans, showing connections to all waste pipes and to main Sewer
- Ventilation, mechanical exhaust and supply

### **Structural Wall Shielding**

Nuclear Medicine suites will generally require structural wall shielding; many radioisotope labs may not require structural wall shielding as any necessary shielding will be provided by local shielding equipment.)

### **Fittings**

Design

Surface and finishes and floor-covering etc

Equipment

### **Plumbing for liquid radioactive waste**

The radioactive waste pipes from nuclear medicine suites and radioisotope laboratories must join a waste pipe which is kept separate from non-radioactive waste pipes in other areas of the building until the radioactive waste joins the main Sewer (to ensure that radioactive waste does not back-flow into non-radioactive areas in the event of a pipe blockage).

However, for some laboratories acid drains may be used for the dual purpose of acid drainage and radioisotope waste.

The Water Corporation of WA will also require a letter from the Radiological Council approving the plumbing suitability for radioactive liquid waste discharge. A copy of this letter is sent from the Radiological Council to the applicant once the plans for the radioisotope plumbing have been approved.

### **Ventilation of radioisotope areas**

The airflow for the rooms of a radioisotope area must meet the relevant values given in AS/NZS 2982:2010 Table 9.1

Exhaust air from the radioisotope area must not be recycled to this area or to other parts of the building or adjacent buildings. It shall be discharged from the building through exhausts located away from other air intakes and such that the discharge does not create a nuisance to members of the public or other buildings.