NORMAL INTERACTION OF RADIATION SERVICES CONSULTING (RSC) WITH YOUR PROJECT TEAM

Our experience in this field has provided insight into the role of a Radiation Design Consultant, which in the past has been rather nebulous due to the relatively recent emergence of the specialty.

The following outline of the scope of work for a design project gives a better idea of this role.

1. Schematic design

Input during schematic design is limited to advice concerning general location of equipment/facilities in order that inappropriate conjunctions of rooms can be avoided and such factors as shielding weight are considered.

2. Design development

This is by far the largest part of our consultant input. Included here are calculations of room shielding and presentation of construction alternatives. Wall weights are significant in areas shielded for ionising radiation, so careful consideration of alternatives is required for structural reasons. Also included here are User Consultation & Briefing and liaison with the local Regulatory Authority to facilitate plan acceptance, the shielding design reports for the end user and the Regulatory Authority, as well as negotiation with local councils.

3. Construction documentation.

The various techniques required to establish and to maintain shielding integrity of walls and other barriers, consistent with construction techniques as specified, are covered in detail. Shielding materials required for walls, doors etc. and construction details are defined.

4. Site attendance

In some instances during the construction phase, if allowed for in the initial scope of works a representative of Radiation Services Consulting will attend the site to monitor construction works to verify that shielding requirements are met. At completion of the works, a certificate verifying that the building complies with design constraints as advised by the local statutory authorities (e.g. Radiation Control, Government Architects etc.) and that shielding integrity is maintained throughout the structure (signing off and providing certification). However where our products are used, site certification can be achieved from digital photos taken by the installer during the install, at no further cost.

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5. Assessment of existing rooms

Shielding of existing rooms can be evaluated either by physical inspection (where possible) of walls and doors. If it is not possible to examine the construction of a particular barrier, then RSC uses a 241Am source to estimate the shielding therein.

In some (very rare) cases a core drilling is required to finally ascertain wall construction. If this is required, then RSC provides supervision to a delegated contractor.

Shielding requirements are then calculated, compared to that existing and recommendations for additional shielding prepared.

In order to simplify document transfer and to keep our interaction as seamless as possible, RSC has implemented the latest AUTOCAD software as our drawing package. Documents are prepared under Microsoft Word 2007. All documentation can be delivered as hard copy, CD-ROM or by email.

All of our projects have readily satisfied the requirements of the appropriate regulatory authorities for the purposes for which they were designed.

Of great importance in this type of work, RSC carries insurance for public and product liability as well as trade practice and professional indemnity.

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