AbstractID: 6003 Title: Shielding Design Workshop: CT

The application of the structural shielding design techniques and goals as outlined in NCRP Report 147: *Structural Shielding Design for Medical X-ray Imaging Facilities* (2004) will be the basis for this practical course. The wide variety of facilities installing CT imaging equipment requires the medical physicist to consider an array of radiation protection concerns for the installation of these units. To meet the challenge of maintaining construction costs to a minimum while providing adequate radiation shielding protection requires the physicist to utilize all available materials to reduce radiation exposure to surrounding personnel and the public. Estimating future workloads as well as considering current workloads for uses of CT scanners as the ability to perform many more scans more quickly can present challenges. Practical examples of implementing multi-slice scanners with a variety of imaging purposes into facilities with a wide variety of existing shielding materials will be explored in this course.

Educational Objectives:

1: Understand the methods of structural shielding design to use for sing and multi-scan CT scanners.
2: Understand the radiation exposure limits for surrounding areas occupied by the public and occupational personnel.
3: Understand methods to predict applicable workloads for various types of facilities and CT scanners.