Claims

1. A radiation shield assembly, configured to block radiation emanating from a radiation source, the assembly comprising:

(a) a support arm constructed to support at least the majority of the weight of the shield assembly, the support arm having a longitudinal axis;

(b) a first generally planar radiopaque vertical shield fastened to the support arm via a first radiopaque joint; and

(c) a second generally planar radiopaque vertical shield;

wherein the first generally planar radiopaque vertical shield is configured to translate along an approximately vertical axis such that in a first position a top edge of the first radiopaque vertical shield is at least the height of an adult human above the floor.

2. A radiation shield assembly, configured to block radiation emanating from a radiation source from below a table for supporting a patient, the assembly comprising:

(a) an approximately vertical mast configured to be suspended by an overhead boom, the mast configured to support at least the majority of the weight of the shield assembly, the mast defining a longitudinal axis;

(b) a first generally planar vertical shield; and

(c) a second generally planar vertical shield;

wherein the radiation shield assembly is configured to allow the first generally planar vertical shield and the second generally planar vertical shield to be rotated relative to one another about a second axis approximately parallel to the first longitudinal axis;

wherein the radiation shield assembly is configured to position the first generally planar vertical shield to protect a user's upper body from radiation emanating from the radiation source.

3. The radiation shield assembly or system of any one of claims 1 and 2, wherein the support arm comprises an approximately vertical mast.

4. The radiation shield assembly or system of any one of claims 1-3, wherein the support arm is capable of supporting the entire weight of the radiation shield assembly, ± 20%.

5. The radiation shield assembly or system of any one of claims 1-4, wherein the first radiopaque vertical shield is configured to translate along an approximately vertical axis such that in a first position a top edge of the first radiopaque vertical shield is at least 175 cm above the floor (± 20%).

6. The radiation shield assembly or system of any one of claims 1-5, wherein the first radiopaque vertical shield has a height of at least the distance from the upper surface of the table to an average human's standing height (± 20%).

7. The radiation shield assembly or system of any one of claims 1-6, wherein at least one of said radiopaque shields has a radiopacity of at least 0.5 mm lead equivalent.

8. The radiation shield assembly or system of any one of claims 1-7, wherein at least one of said radiopaque shields has a radiopacity of at least 3 mm lead equivalent.

9. The radiation shield assembly or system of any one of claims 1-8, wherein at least one of said radiopaque shields reduce radiation exposure by at least 85% when measured by the Modified ASTM F3094/IEC 61331-1 Protocol.

10. The radiation shield assembly or system of any one of claims 1-9, wherein all of said shields reduce radiation exposure to no more than 2.5 mR/hr (± 20%) when measured by the Modified ASTM F3094/IEC 61331-1 Protocol.

11. The radiation shield assembly or system of any one of claims 1-10, wherein the support arm comprises a mast supported by a floor stand.

12. The radiation shield assembly of any one of claims 1-11, wherein the first generally planar radiopaque vertical shield is configured to be positioned such that a top edge of the first radiopaque generally planar vertical shield is at least the height of an adult human above the floor (± 20%).

13. The radiation shield assembly of any one of claims 1-12, wherein the second axis is the same as the first longitudinal axis.

14. The radiation shield assembly of any one of claims 1-13, wherein the support arm is configured to translate the entire radiation shield assembly relative to the table.

15. The radiation shield assembly of any one of claims 1-14, wherein the support arm comprises an approximately vertical mast configured to be suspended by an overhead boom.

16. The radiation shield assembly of any one of claims 1-15, configured to position the first generally planar vertical shield and the second generally planar vertical shield to protect the user's head from radiation emanating from the radiation source.

17. The radiation shield assembly of any one of claims 1-16, configured to position the first generally planar vertical shield and the second generally planar vertical shield to protect the user's head from radiation emanating from the radiation source.