9. The method of any one of the above claims wherein the equipment enclosure includes lead.

10. The method of any one of the above claims wherein the exposure of the motor components to radiation is reduced by at least 10% as compared to the radiation exposure that would occur without the equipment enclosure.

11. A system comprising:

an electron beam irradiating device;

a vibratory conveyor, positioned such that material conveyed on the conveyor is exposed to the electron beam, the conveyor having motor components mounted on a structure;

a substantially radiation opaque equipment enclosure configured to be positioned over the motor and having an open end that is dimensioned so as to provide a gap between the equipment enclosure and the structure when the equipment enclosure is in place; and

a conduit configured to flow a purging gas into the equipment enclosure; and

a source of purging gas in fluid communication with the conduit.

12. The system of claim 11, wherein the gap is maintained by fixing the equipment enclosure relative to the conveyor using a stop, a groove, a spacer and/or a fastener.

13. The system of any one of claims 11-12 further comprising equipment for moving the equipment enclosure into and out of position over the conveyor components.

14. The system of ~~any one of~~ claims ~~11-~~ 13, wherein the equipment is selected from wheels attached to the equipment enclosure, tracks for sliding the equipment enclosure, wheels disposed below the equipment enclosure (e.g., attached to the ground), sliders (e.g., slide rails), linear guides and combinations thereof.