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October 3, 2008

Michael T. Lesar
Chief, Rulemaking, Directives, and Editing Branch
Office of Administration
Mail Stop T-6D59
U.S. Nuclear Regulatory Commission
Washington, DC 20555-0001

RE: regulation of CsCl radioactive sources

Dear Mr. Lesar:

I am a radiation biologist and member of both the Radiation Research Society and the American Society for Therapeutic Radiology and Oncology and am concerned about the extent to which the NRC may be willing to proceed in regulating accessibility and availability of CsCl radioactive sources.

I have used such sources for over 20 years both in my research laboratories and in managing blood product irradiation for clinical use. As you know, these self-contained irradiators are easy to use, fail-safe and present no external radiation hazard. In clinical settings and in the radiation research community they offer an ideal alternative to higher energy radioactive sources and lower energy x-ray machines.

Many in the research community are critically dependent upon these sources as they advance our understanding of radiation sensitizers and protectors, cancer biology and treatment and as they research counter measures to nuclear terrorism. To eliminate this valuable resource will have major impacts upon this work. To suggest that such a resource can be replaced by an x-ray machine is naïve. The cost alone of building shielded rooms and installing such a device would effectively rule out continuation of the research projects and for most facilities, either eliminate blood product irradiation or make it prohibitively expensive.

High dose rate Cs remote after loaders are a critical component in the repertoire for cancer therapy. They cannot be practically replaced

I strongly urge the NRC to proceed with caution as you consider this issue. To ban CsCl and replace such devices with x-ray machines will have a devastating impact no only on cancer treatment but also upon basic research projects and will eliminate many productive laboratory activities because of the economics of replacement. To ban all new CsCl sources will have a similar impact as the old sources decay beyond a useful activity and replacements are not available.

It is conceivable that some fool would attempt to extract such a source from a research or blood product irradiator. If it is practical to develop a less soluble solid phase cesium source, I would support such development and gradual replacement of existing sources.

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Add = J. Jankovich (JPJ2)

We in the medical community have already been required to harden access to cesium irradiators and these are carefully monitored by radiation safety personnel.

It is obvious that we cannot either anticipate all acts of terrorism or protect against the fanatic who places no value on life. It is reasonable to critically evaluate accessibility and to suggest potential alternatives to certain radioactive resources but to do so at the expense of continuing and future productive research and/or necessary medial treatment makes us victims and is an unacceptable alternative.

It is my hope that the NRC together with representatives from the potentially impacted communities will find ways that improve the security of these resources without making their use so restrictive as to be effectively banned.

Thank you for your thoughtful consideration of these issues.

Sincerely yours,

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