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RULES AND DIRECTIVES
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Michael Lesar,
Chief, Rulemaking,
Directives, and Editing Branch, Office of Administration,
Nuclear Regulatory Commission,
Washington, DC 20555-0001.

Re: Security and Continued Use of Cesium-137 Chloride Sources,' (Docket No. NRC-2008-0419)

Dear Mr. Lesar,

I write to express concern about the possible future dismantlement of CsCl sources. My research group and I have been using these types of radiation sources for over two decades. I had the opportunity of collaborative work with colleagues in many different Institutions and I have never seen a breach of security concerning these radiation sources. In fact, great care is taken at any level in every Institution to make sure the highest security and control are set in place to govern accessibility and use of these sources. With my experience using this type of radiation, I do not believe there is a real treat to society by keeping these sources operational; on the contrary, I am very concerned *as per* the way how these sources will be dismantled, how the waste will be contained and collected and where it will be stored.

Scientifically speaking, now, it would be very hard for us not to be able to conduct our research by using the gamma source in the future. In my laboratory, we conduct basic cancer biology and cancer radiation studies, and we make great use of the cesium irradiator we have at our Institution (we irradiate samples on average two/three times a months, with a big load of samples each time), it would be extremely detrimental for us not to have access to this facility. In our studies we use gamma-rays to determine the effects of this type of radiation on cancer cells in culture to elucidate molecular mechanisms of cancer resistance to radiation treatment and cancer progression. These *in vitro* studies are pivotal for a better understanding of cancer development, resistance and progression *in vivo*. We are also heavily involved in studies of space radiation carcinogenesis. This project is funded by NASA, and while we utilize densely ionizing radiations, mimicking the spectrum of radiations found in space, to assess the carcinogen

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potential of space radiation, their Relative Biological Effectiveness (RBE) is measured against sparsely ionizing radiation, which is gamma-radiation from our cesium source.

I hope my reasoning and concerns will resonate with the Committee on Regulations and a long and hard look into how this proposal will affect the scientific and industry communities will be implemented before any decision will be made.

Looking forward to continue to use “my” cesium source, Sincerely

Fiorenza Ianzini