

## **Summary of Public Workshop on the Security and Continued Use of Cesium-137 Chloride Sources**

A public workshop was held on September 29-30, 2008, in Rockville, MD., to solicit early public input on issues associated with the security and continued use of radioactive cesium-137 chloride sources. Cesium-137 chloride sources are used in many different devices including irradiators, which pose a significant risk to public health and the environment if not properly handled and secured. The National Academy of Sciences recently recommended the replacement or elimination of certain cesium-137 chloride sources.

The workshop began with opening remarks from Commissioner Lyons. Commissioner Lyons presented his views on the safety and security of sealed cesium-137 sources. He also encouraged the audience to provide broad stakeholder input on the potential impacts of actions and the range of alternatives that could address issues associated with removal or increased controls of cesium-137 chloride sources in use.

During the workshop, attendees participated in round table discussions focusing on five main areas delineated in the July 30, 2008, Federal Register Notice (reference listed at the end of this document): alternative cesium-137 chloride sources, alternative technologies, phase out and transportation issues, additional enhanced security, and potential future requirements. Panel members were pre-selected for each roundtable session in order to represent multiple perspectives and views. Additionally, audience members had the opportunity to speak and offered input during the discussions.

A wide variety of perspectives and views from industry, education, government agencies, and the public were expressed. Many workshop participants agreed that numerous issues will have to be resolved with any replacement technology and that large differences exist between x-ray and gamma irradiation in terms of their respective energy spectra. Alternatives appear unsuitable for many other types of biomedical research applications and instrument calibration. In addition, several medical organizations stated that they are concerned that the prohibition or elimination of the use of cesium-137 chloride irradiators could result in a decrease in the standard of medical care that exists in this country. They stated that limiting sources would have a major impact on medical research in the US and that any transition to another modality would have severe impacts on the medical industry.

Regarding the use of cesium in calibration, the participants emphasized that there are no alternative technologies or nuclides available, and that any change to base the national and international measurement systems on a nuclide other than cesium is not feasible. For the actual meeting transcript, please see the reference listed at the end of this document.

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Documents relevant to the workshop are posted on the following web-site:

<http://www.nrc.gov/materials/miau/licensing.html>