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Protecting People and the Environment

Public Meeting on the Draft Policy Statement on Cesium-137 Chloride Sources

The Universities at Shady Grove Conference Center Auditorium

November 8-9, 2010

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Issue 1 for Discussion

The safety and security of risk significant sources is an essential part of the NRC's mission. Licensees have the primary responsibility to securely manage and to protect sources in their possession from misuse, theft, and radiological sabotage.

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Issue 1: Participant Deliberations

- What is the status and history of the current security requirements and programs to reduce the potential vulnerability of IAEA Category 1 and 2 sources?
- What issues have licensees experienced when implementing the requirements?
- What is the status of the NRC and Agreement State inspections designed to verify implementation of the requirements.

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Issue 2 for Discussion

Adequate protection of public health and safety is maintained if CsCl sources are managed in accordance with the security requirements of the NRC and the Agreement States. The NRC monitors the threat environment and maintains awareness of international and domestic security efforts. In the event that changes in the threat environment necessitate regulatory action, the NRC is ready to issue security requirements to apply appropriate limitations for the use of CsCl in its current form.

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Issue 2: Participant Deliberations

- Is security of CsCl sources adequately addressed by the current requirements?
- Should CsCl sources receive special consideration?
- How would the proposed Part 37 change the licensees' current/existing security measures for CsCl?
- How do the FBI outreach efforts affect the protection measures in place for CsCl sources?
- If needed, what additional cooperative efforts could be undertaken to enhance security or minimize the risk?

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Issue 3 for Discussion

Could hardware improvements be made that would further mitigate or minimize the radiological consequences?

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Issue 3: Participant Deliberations

- What is the status of current CsCl designs regarding security enhancements?
- What are the benefits of the DOE/NNSA voluntary security enhancements and table-top exercises?
- Are other isotopes being considered for the future production of existing designs?
- Are new concepts being considered for new designs?

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Summary of Issues 1-3

- Issue 1: NRC's Role, Licensee's Responsibilities
- Issue 2: US Regulatory Requirements for Security
- Issue 3: Design Improvements and Alternatives

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Overview of Day 1

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Issue 4 for Discussion

The development and use of alternative forms of cesium-137, while not required for adequate protection, is prudent and the NRC intends to monitor these developments closely.

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Issue 4: Participant Deliberations

- Are manufacturers currently considering the use of other forms of cesium (other than CsCl)? If yes, what alternatives are viable?
- What is the status of new developments?
- How can the effectiveness of new alternatives regarding solubility and dispersibility be measured?
  - What are the physical/chemical parameters?
  - How can risk reduction be quantified?
- How to formalize solubility and dispersibility parameters?

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Issue 5 for Discussion

CsCl enables three specific classes of applications that benefit society:

- Blood irradiation;
- Bio-medical and industrial research; and
- Calibration of instrumentation and dosimetry.

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Issue 5: Participant Deliberations

- What impact does the Draft Policy Statement pose for each of these applications?
- What is the licensees' experience in complying with the current security requirements in view of the three fields of applications?
- What technological changes are anticipated in these applications regarding the use of cesium-137 sources?

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Issue 6 for Discussion

The NRC recognizes that currently there is no disposal capability for commercial CsCl sources. The NRC considers it imperative to develop a pathway for the long-term storage and disposal of these sources whether or not there are alternatives developed.

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Issue 6: Participant Deliberations

- What are the major issues for licensees (users of CsCl sources) regarding disposal of their sources?
- What options are available?
- What are the (security and cost) impacts of the current regulatory environment on licensees?

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Summary of Issues 4-6

- Issue 4: Alternate Forms of Cs-137
- Issue 5: Fields of use for Cs-137 Sources
  - Blood Irradiation
  - Biomedical Research
  - Calibration
- Issue 6: Status of Disposal

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Thank you!

For further information, please contact the CsCl Workshop coordinators:

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Come visit us at www.nrc.gov or visit the designated meeting web site at http://www.nrc.gov/materials/miau/licensing.html#cc

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~ Break ~
Please Return Shortly

(Please ensure we have your PPT file if you are presenting in the next session)

Written comments can be submitted at:

www.regulations.gov

Docket ID: **NRC-2010-0209**

Public comment period closes on

December 17, 2010