



# **Status on Data Collection on Patient Release**

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# Purpose

- To provide an overview and an update of NRC initiatives related to the release of patients administered I-131, especially those who do not immediately return to their primary residences.

# **Background: Release Regulations**

- May 1997 - NRC revised the patient release regulation (10 CFR 35.75) to release the patient based on the dose to the maximally exposed individual.
- Patients can be released if: The dose to any other individual from exposure to the released patient is not likely to exceed 5 mSv (0.5 rem).

# **Background:**

## **Release Regulations**

- The regulations require that written instructions on how to keep doses to other individuals as low as reasonably achievable (ALARA) be given to patients if there is a possibility that doses to any other individual would exceed 1 mSv (0.1 rem).
- The licensee is required to maintain a record of the basis for authorizing the release.

# **Iodine-131 Administration**

- Increased activities
  - Increased number of procedures
  - Wide variability of administered activities
- Unique Characteristics
  - Volatility
  - Increased potential for external/internal radiation doses
  - Contamination
- Emissions

## **Current Guidance**

- Regulatory Guide 8.39: Release of Patients Administered Radioactive Materials
- NUREG-1556 Vol. 9: Consolidated Guidance about Materials Licenses: Program-Specific Guidance About Medical Licenses
- NRC RIS: 2008-07 Dose Limit For Patient Release Under 10 CFR 35.75

## **Current Guidance**

- NRC RIS: 2008-11 Precautions To Protect Children Who May Come In Contact With Patients Released After Therapeutic Administration Of Iodine-131
- NRC RIS: 2011-01 NRC Policy On Release Of Iodine-131 Therapy Patients Under 10 CFR 35.75 To Locations Other Than Private Residences

## **Recent Initiatives**

- Commission directed NRC Staff to:
  - Evaluate whether there are gaps in the available empirical data on doses received by members of the public from release of patients treated with medical isotopes.
  - Determine how the agency could go about collecting additional data, if needed.
  - Assess the feasibility of revisiting the dose assessment used to support the 1997 patient release rulemaking.



# **Data Collection Regarding Patient Release**

- In March 2012, the Commission directed staff to perform analytical and limited empirical research/data collection, and revisit calculations and methods described in the Regulatory Guide 8.39 for patient release.

# **Staff's Proposed Research**

- Literature Review
- Review assumptions used in Reg. Guide 8.39
- Survey habits of Released Patients
- Perform empirical measurements
- Assess internal and external radiation exposure
- Re-assess the adequacy of Regulatory Guide 8.39

# Conclusions

- Depending on the outcome of the research NRC may:
  - Update Regulatory Guide 8.39
  - Take other actions, as appropriate.



**QUESTIONS?**