



The Consideration of Potassium Iodide(KI) in Emergency Plans

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The Nuclear Regulatory Commission has revised a section of its emergency preparedness regulations. The revised rule requires that States with population within the 10-mile emergency planning zone of commercial nuclear power plants consider including potassium iodide (KI) as a protective measure for the general public to supplement sheltering and evacuation in the unlikely event of a severe nuclear power plant accident.

Potassium iodide is a salt, similar to table salt. Its chemical symbol is KI. It is routinely added to table salt to make it "iodized." Potassium iodide, if taken in time and at the appropriate dosage, blocks the thyroid gland's uptake of radioactive iodine and thus would prevent thyroid cancers and other diseases that might otherwise be caused by exposure to radioactive iodine that could be dispersed in a severe nuclear accident.

The final rule amends 10 CFR 50.47 (b) (10). The NRC published the rule change in the *Federal Register* (Volume 66, Number 13, page 5427) on January 19, 2001. The change becomes effective April 19, 2001.

Concomitant with this action, the NRC will provide funding for a supply of KI for a State, or Tribe, that chooses to incorporate KI for the general public in their emergency plans. In some cases, if designated by the State, local governments may also request the funding. After funding the initial purchases of KI, the Commission may consider extending the program to fund replenishment supplies, but has made no commitments in this regard.

- **Background**
Federal Register Notice
- **Who is eligible to obtain KI funding?**
This rule applies to States and Tribal governments with Nuclear Power Plants (NPPs) within their borders, with populations within the 10-mile EPZ, and local governments designated by States to request KI funding.

The Commission believes the final rule together with the Commission's decision to provide funding for the purchase of a State's supply of KI strikes a proper balance between encouraging (but not requiring) the offsite authorities to take advantage of the benefits of KI and acknowledging the offsite authorities' role in such matter. By requiring consideration of the use of KI, the Commission recognizes the important role of States and local governments in matters of emergency planning.
- **The process to obtain KI**
NRC and FEMA staff are working on a program to implement this new rule.
- **Current Status**
The Nuclear Regulatory Commission (NRC) and Federal Emergency Management Agency (FEMA) are the two Federal agencies responsible for oversight of emergency preparedness at and around nuclear power plants (NPP). NRC and FEMA staff are working on a program to implement this new rule. In conjunction with this action, we are awaiting the issuance of the Food and Drug Administration (FDA) final guidance on KI. This issuance will address recommended doses for different risk groups (age groups) and protective action recommendations as to when the population should ingest KI to protect the thyroid from the uptake of radioactive iodine.

The NRC has revised draft NUREG-1633 which provides guidance on the use of KI. The draft NUREG-1633 will be sent to the NRC Commissioners in April 2001. After review by the Commission, the NUREG will be issued for a 60-day public comment period.

The status of NRC and FEMA activities to implement the KI rule will be periodically updated.

- **Frequently Asked Questions**

This section is under development. FAQs will be posted here as soon as they are available.

- **Licensees**

The Commission notes that this rule will introduce another element in the context of emergency planning requirements for which licensees are ultimately responsible. Licensees have the obligation to confirm that offsite authorities have considered the use of KI as a supplemental protective action for the general public. While this ultimate responsibility could have practical implications, with some associated burdens, the extent is considered minimal when viewed in the overall licensee burden of complying with all of the existing emergency planning requirements. The rule does not articulate any implementation date or inspection criteria.

- **Related Regulations and Guidance**

NUREG-1633, "Assessment of the Use of Potassium Iodide (KI) as a Supplemental Public Protective Action during Severe Reactor Accidents," is in draft form.

FDA draft guidance is available for public comment. The public comment period ends on April 27, 2001.

- **Schedule**

NUREG-1633 will be sent to the NRC Commission in April 2001 for review and comment.

The final rule will be effective on April 19, 2001.

The comment period for the FDA proposed guidance ends on April 27, 2001.

The publication date of FDA's guidance is unknown at this time.