

PRM-51-11
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DOCKETED
USNRC

From: "Cindy Folkers" <cindyf@nirs.org>
To: <SECY@nrc.gov>
Date: Tue, Feb 6, 2007 1:48 AM
Subject: Comment on rulemaking Docket No. PRM-51-11

February 6, 2007 (11:56am)

OFFICE OF SECRETARY
RULEMAKINGS AND
ADJUDICATIONS STAFF

Hello, please find comments pasted in message and attached.

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Thank you for the opportunity to comment on NRC PRM-51-11

NRC must reconcile its generic environmental impact statement for nuclear power reactor operating license renewal applications with current scientific understanding of the health risks of low-level radiation, including but not limited to those discussed in the National Academy of Sciences Health Risks From Exposure to Low Levels of Ionizing Radiation: Biological Effects of Ionizing Radiation (BEIR) VII Phase 2 Report.

NRC must exercise precaution. Historically, radiation regulations have only become more protective after damage has occurred and not before, despite clear warnings. Operating under the precautionary principle now will help avoid repeating these dangerous mistakes and allow protective action to fill gaps in scientific knowledge rather than no action. Science does not support a dose of radiation below which there is no damage. Since there is no known safe dose, radiation exposure must be kept to a minimum with a goal of zero release. It is the responsibility of the regulators to ensure this happens.

NRC must:

1) Recognize there is no safe dose: Regarding low dose radiation, the Biological Effects of Ionizing Radiation panel (BEIR VII) of the National Academy of Sciences has concluded, "it is unlikely that a threshold exists for the induction of cancers...." Several individual scientific studies support this conclusion as well.

2) Recognize "allowable" levels are not safe: NRC needs to recognize "allowable" levels of radionuclides are NOT conservative or protective enough. Since a safe dose of radiation has eluded us, NRC needs to strive for zero release of radiation from all licensee facilities, including nuclear power reactors.

3) Protect the most vulnerable: NRC must account for more vulnerable populations in their standards or risk intentionally discriminating against these vulnerable populations which include women and children.

According to the BEIR VII report, the risks for all solid tumors, like lung, breast, kidney, liver, and other solid tumors added together are almost 40% percent greater for women than men. (Summary estimates are in Table ES-1 on page 28 of the BEIR VII report prepublication copy)

The BEIR VII report estimates that the risk for children is even greater. For instance, equal radiation exposure in the first year of life for boys produces two to three times the cancer risk as exposure at age 20. Female children zero to five years have almost double the risk

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as male children of the same age. (Table 12 D-1 on page 550 of the prepublication copy of the report.)

Consider also a recent study which shows that women who have the BRCA gene (predisposing them to breast cancer) are more highly sensitive to radiation exposure than women who don't have it. [J Clin Oncol. 2006 Jul 20; 24(21): 3328-30.]

4) Consider radiation damage from inhaling or ingesting radionuclides: NRC does not consider the effects of internal radiation from incorporated alpha and beta emitters. The amount of polonium-210 that recently killed a former Russian intelligence officer was considered by IAEA and, by extension, NRC to be of the lowest possible risk because both regulatory bodies failed to account for internal radiation damage. Although this was a case of deliberate poisoning, it points to the inadequate and incorrect assumption of what constitutes a dangerous radionuclide or level of material. NRC cannot allow this to continue. Internal doses of radiation must be considered in protection regulations.

5) Look at the whole exposure picture: The NRC must protect the most vulnerable from all types of excess radiation exposure, planned and accidental. NRC needs to include measurement and monitoring of all forms and pathways, including exposures outside the facility fence line.

CC: "Cindy Folkers" <cindyf@nirs.org>

Mail Envelope Properties (45C8248E.358 : 8 : 41816)

Subject: Comment on rulemaking Docket No. PRM-51-11
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TEXT.htm	6683	
nrc most vulnerable comments.doc		33280
Mime.822	58654	

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Expiration Date: None
Priority: Standard
ReplyRequested: No
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Security: Standard

Junk Mail Handling Evaluation Results

Message is eligible for Junk Mail handling
This message was not classified as Junk Mail

Junk Mail settings when this message was delivered

Junk Mail handling disabled by User
Junk Mail handling disabled by Administrator
Junk List is not enabled
Junk Mail using personal address books is not enabled
Block List is not enabled

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