

PRM-51-11
(71FR67072)

DOCKETED
 USNRC

From: "Sidney Goodman" <gizmogink@mindspring.com>
To: <SECY@nrc.gov>
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Subject: Improve radiation protection standards at older reactors.

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OFFICE OF SECRETARY
 RULEMAKINGS AND
 ADJUDICATIONS STAFF

To: the Secretary of the NRC. - SECY@nrc.gov
 From Sidney J. Goodman, P.E., M.S.M.E.
 158 Grandview Lane, Mahwah, NJ 07430
 Subject: PRM-51-11 Comments.

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Improve radiation protection standards at older reactors.

I request that the NRC prepare a rulemaking that will require that the NRC reconcile its generic environmental impact statement for nuclear power plant 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.

I request that the NRC prepare a rulemaking that would require that the NRC reconcile its GEIS for nuclear power plant operating license renewal applications with the National Academy of Sciences (NAS) Health Risks From Exposure to Low Levels of Ionizing Radiation: BEIR VII, Phase 2 which was released in 2005. The petitioner asserts that the GEIS relies upon an earlier NAS report, the BEIR V, released in 1990. According to the NAS Web site, the BEIR VII updates the information contained in the BEIR V and draws upon new data in both epidemiologic and experimental research.

I request that NRC consider the NAS BEIR VII report as new and significant information and recalculate certain conclusions set forth in the GEIS, including early fatalities, latent fatalities and any injury projections based on this information.

1) Protect the most vulnerable: Exercise precaution by accounting for more vulnerable populations in their standards. Since no level of radiation dose is safe (see BEIR VII quote below), the best precaution would be no exposure. However recognizing and regulating for vulnerable populations is a start.

"In BEIR VII, the cancer mortality risks for females are 37.5 percent higher. The risks for all solid tumors, like lung, breast, and kidney, liver, and other solid tumors added together are almost 50 percent greater for women than men, though there are a few specific cancers, including leukemia, for which the risk estimates for men are higher." (Summary estimates are in Table ES-1 on page 28 of the BEIR VII report prepublication copy, on the Web at <http://books.nap.edu/books/030909156X/html/28.html>.)

The BEIR VII report estimates that the differential risk for children is even greater. For instance, the same radiation in the first year of life for boys produces three to four times the cancer risk as exposure between the ages of 20 and 50. Female infants have almost double the risk as male infants. (Table 12 D-1 and D-2, on pages 550-551 of the prepublication copy of the report, on the Web starting at <http://books.nap.edu/books/030909156X/html/550.html>)." (excerpted from <http://www.ieer.org/comments/beir/beir7pressrel.html>)

2) Recognize *allowable* levels are not safe: The NRCs "allowable" levels of radionuclides are NOT conservative or protective enough. They are based only on the obsolete "standard man", a healthy, white male in the prime of life, and ignore the more vulnerable fetus, growing infant and child, the aged, those in poor health, and women who are, according to the BEIR VII report, 37- 50% more vulnerable than standard man to the harmful effects of ionizing radiation.

3) Consider radiation damage from inhaling or ingesting radionuclides: The NRC does not consider the effects of internal radiation from ingested or inhaled alpha and beta emitters. The amount of polonium-210 that recently killed a former Russian intelligence officer was considered by IAEA and NRC to be of the lowest possible risk because they failed to account for internal radiation damage.

4) Recognize there is no safe dose: Further, regarding low dose radiation, the BEIR VII panel has concluded, *it is unlikely that a threshold exists for the induction of cancers... Further, there are extensive data on radiation-induced transmissible mutations in mice and other organisms. There is therefore no reason to believe that humans would be immune to this sort of harm.*

Protect all members of the public from all types of excess radiation exposure from nuclear power and its fuel cycle, gamma, alpha, beta, neutron, particulate, fission products, noble gases, etc. and that

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measurement and monitoring should include all forms and pathways, not just gamma at the fence line. Radiation limits should include accidental releases as well as planned emissions.

BACKGROUND FROM FEDERAL REGISTER

Entergy Nuclear Operations, Inc. (Entergy) submitted an application for renewal of Operating License No. DPR-28 for an additional 20 years

of operation at the Vermont Yankee Nuclear Power Station (VYNPS). The VYNPS is located in the town of Vernon, Vermont, in Windham County

on the west shore of the Connecticut River immediately upstream of the Vernon Hydroelectric Station. The operating license for VYNPS expires

on March 21, 2012. A notice of receipt and availability of the application, which included the environmental report, was published in the

Federal Register on February 6, 2006 (71 FR 6102). Subsequently, the NRC published a "Notice of Intent to Prepare an

Environmental Impact Statement and Conduct Scoping Process" on April 21, 2006 (71 FR 20733). The NRC will prepare an EIS related to

the review of the license renewal application. The applicable NRC regulation, 10 CFR 51.95(c), required that the NRC, in

determining whether to grant a renewal of a nuclear power plant operating license, prepare an environmental impact statement (EIS).

The regulation provides that this EIS supplement the NRC's baseline,

generic EIS issued in 1996, NUREG-1437, "Generic Environmental Impact Statement for License Renewal of Nuclear Plants" (May 1996)(GEIS).

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