



SIERRA CLUB*

DOCKET NUMBER
PETITION RULE PRM ~~20-23~~
(59 FR 17746)

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Secretary of the Commission
U.S. NRC
Washington, DC 20555
ATTENTION: Docketing & Service Branch

RE: Docket # PRM-20-23, Steve Gannis Petition for
Rulemaking to 10 CFR 20

The Northeast Ohio Group and the Ohio Chapter of the Sierra Club concur with the above-captioned Petition for Rulemaking which requests that NRC regulations be amended to significantly lower the current 100 millirem annual ionizing radiation dose to the general public from combined NRC-regulated sources of exposure.

Sierra Club agrees with the Petition's two main points:

1. Page 8 of the NRC's now defunct 1990 "Below Regulatory Concern Policy Statement" states that an annual lifetime exposure of 100 millirems of radiation would result in fatal cancer in 1 of every 285 members of the exposed public. This number does not include nonfatal cancers or other deleterious health effects caused by exposure to ionizing radiation, nor does it include annual exposure to natural background radiation. Page 13 of the same NRC policy statement admits that "low doses of radiation (can cause) cancer, genetic effects and developmental anomalies in fetuses."
2. U.S. EPA and other federal agencies which regulate human exposure to carcinogens maintain standards that permit only approximately 1 cancer per million people.

Other than briefly citing some recent findings, time constraints prohibit a detailed discussion of the well documented medical and scientific substantiation that this Petition warrants:

1. *The Effects on Populations of Exposure to Low Levels of Ionizing Radiation: 1980*, Report of the Advisory Committee on the Biological Effects of Ionizing Radiation concluded that radiation exposure can initiate genetic defects, virtually every type of cancer, heart disease, aplastic anemia, cataracts and weakened immunity.
2. Recent studies of Japanese atomic bomb survivors published in "Reassessment of Atomic Bomb Radiation Dosimetry," D.L. Preston and D.A. Pierce; "Life Span Study Report 11," Part 1, 12/87 and Part 2, 4/88, Radiation Effects Research Foundation, Hiroshima Japan and "Atomic Bomb Doses Reassessed," Leslie Roberts, *Science*, 12/18/87 show that low dose radiation is more harmful and causes more cancer than previously projected.
3. In its December 1988 Supplement # 45, the United Nations Scientific Committee on the Effects of Atomic Radiation concluded that the risk from radiation was 8 times higher than previously thought.
4. In 1990, the National Research Council's Committee on the Biological Effects of Ionizing Radiation (BEIR V) reported that the cancer causing effects of radiation are 3 to 12 times higher than previously believed, depending on the type of cancer being considered.
5. Research published in the March 20, 1990 *Journal of the American Medical Association (JAMA)* based on a long-term study of over 8,000 workers at the Oak Ridge National Laboratory, concluded a 10 times greater cancer risk from radiation exposure than was previously estimated, and a large, long-term study of British radiation workers published in the January 25, 1992 *British Medical Journal* showed similar results.

There has been a steady decrease in the permitted levels of worker and public exposure to ionizing radiation with good reason. Over the years, epidemiological evidence has shown that the biological effects of exposure to even low doses of ionizing radiation are more serious than previously thought. Therefore, it is prudent to regulate exposure to the general public at the lowest possible dose which should be reduced below the present 100 millirem/year level.

Sincerely yours,

Connie Kline

Connie Kline
Nuclear Committee

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* Reference for identification purposes