

**Southern California Federation of Scientists
Sierra Club Nuclear Free Campaign
Nuclear Information and Resource Service
Food and Water Watch
Committee to Bridge the Gap
Beyond Nuclear**

**Comments to NRC Opposing Hormesis Petitions for Rulemaking
Docket Nos. PRM 20-28, PRM-20-29, PRM 20-30 NRC-2015-0057; 80 FR 35870
Rulemaking.Comments@nrc.gov
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The Southern California Federation of Scientists, Sierra Club Nuclear Free Campaign, Nuclear Information and Resource Service, Food and Water Watch, Committee to Bridge the Gap and Beyond Nuclear submit the following comments in opposition to the Hormesis Petitions for Rulemaking to the US Nuclear Regulatory Commission, Docket Nos. PRM-20-28, PRM-20-29, and PRM-20-30, NRC-2015-0057; 80 FR 35870.

The Nuclear Regulatory Commission (NRC) has before it petitions urging that it dramatically weaken its already insufficiently protective radiation regulations. Petitioners put forward fringe arguments, long rejected by the great consensus of the scientific community, that there is a threshold below which radiation is harmless and indeed is good for health (hormesis). These radiation harm deniers are like the handful of climate change deniers who are far outside the scientific consensus on climate and often allied with fossil fuel interests.

The US Nuclear Regulatory Commission (NRC), Environmental Protection Agency (EPA) and other agencies requested the National Academy of Sciences (NAS) to address the health risks from ionizing radiation. In its Report on The Biological Effects of Ionizing Radiation (BEIR VII), NAS directly dismissed the hormesis claims and reaffirmed that the scientific evidence supports the Linear No Threshold (LNT) model. NAS found that there is no safe level of ionizing radiation, that all exposures increase the risk of cancer, and that the greater the exposure, the greater the risk.

EPA, which has the authority to establish radiation rules and guidance for other agencies to follow, similarly reaffirmed the Linear No-Threshold LNT model in its most recent definitive report on the subject, its “Blue Book” (EPA Radiogenic Cancer Risk Models and Projections for the U.S. Population). EPA, among other requirements, establishes radiation protection regulations with which the nuclear fuel cycle must comply (40 CFR 190), which NRC acknowledges in 10 CFR 20.103(e) as being binding requirements for its nuclear fuel cycle licensees. It is thus unclear whether NRC even has the authority to consider the petitions to adopt hormesis and reject LNT, and to markedly erode radiation protections further, inconsistent with EPA rules and guidance.

In any case, such action would be highly inadvisable. NRC should be strengthening its radiation protection rules to reflect the increased estimates of risk of cancer per unit dose adopted by NAS (at NRC’s request) and EPA, rather than any consideration of further weakening public protections from ionizing radiation.

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