

POLICY ISSUE
NOTATION VOTE

RESPONSE SHEET

TO: Annette Vietti-Cook, Secretary
FROM: Chairman Hanson
SUBJECT: DENIAL OF PETITIONS FOR RULEMAKING REGARDING
LINEAR NO-THRESHOLD MODEL AND STANDARDS FOR
PROTECTION AGAINST RADIATION (PRM-20-28, PRM-20-29,
AND PRM-20-30)

Approved Disapproved Abstain Not Participating

Comments: Below Attached None

Entered in STARS

Yes

No

Christopher T.
Hanson

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T. Hanson
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Christopher T. Hanson

DATE: May 12, 2021

Chairman Hanson's Comments on "SECY-19-0008,
Denial of Petitions for Rulemaking Regarding Linear No-Threshold Model and Standards for
Protection Against Radiation (PRM-20-28, PRM-20-29, and PRM-20-30)."

The question before the Commission is whether to approve three petitions for rulemaking to amend Title 10 of the Code of Federal Regulations (CFR) Part 20, "Standards for Protection Against Radiation," based on what the petitioners assert is new scientific evidence that contradicts the linear no-threshold dose (LNT) model. The petitioners contend that there is a threshold below which radiation exposure to the human body is not harmful. The petitioners also advanced the concept of radiation hormesis, which postulates that exposure of the human body to low and very low levels of ionizing radiation is beneficial to humans.

NRC staff is recommending that the Commission deny the three petitions in their entirety because they fail to present an adequate basis supporting the request to discontinue use of the LNT model. The staff acknowledges the difficulties inherent in determining the amount of damage to the human body caused by low doses of radiation. Further, there is a lack of consensus among national and international scientific bodies about a threshold below which there would be no risk from exposure to low radiation doses.

Therefore, I agree with the staff's view that the LNT model continues to provide a prudent regulatory basis for adequate protection and to minimize the risk of unnecessary radiation exposure to both members of the public and occupational workers. Further, the LNT model most closely adheres to the NRC's Principles of Good Regulation, namely clarity, efficiency, and reliability.

For these reasons, I approve the staff's recommendation to deny the three petitions for rulemaking. I also approve the draft Federal Register notice and letters to the petitioners announcing the denial of the petitions.