

UNITED STATES
NUCLEAR REGULATORY COMMISSION
WASHINGTON, D.C. 20555

July 9, 1990

MEMORANDUM FOR: James M. Taylor
Executive Director for Operations

FROM: Samuel J. Chilk, Secretary

SUBJECT: SECY-90-169 - MODIFIED ENFORCEMENT POLICY FOR
HOT PARTICLE EXPOSURES REVISION TO
INCORPORATE RECOMMENDATIONS MADE TO NCRP
REPORT NO. 102

The Commission (with Chairman Carr and Commissioners Rogers and Remick agreeing) has approved the implementation of a modified enforcement policy for hot particle exposures. Commissioner Rogers' additional comments are included in the attached memorandum. Commissioner Curtiss disapproved of the proposed modification to the NRC enforcement policy for hot particles and would have instead preferred adopting the proposal in SECY-89-370 as an interim measure, pending rulemaking to address this issue. Commissioner Curtiss' views are attached.

The staff should implement the proposed modification to the enforcement policy, transmit the policy to NRC licensees in the form of an information notice and publish it in the Federal Register.

(EDO) (SECY Suspend: 8/3/90)

The staff should ensure the involvement of senior management in the timely resolution of the remaining issues with the NCRP Report No. 106. These resolutions may be factored into the upcoming rulemaking activity to amend 10 CFR 20 with specific limits for hot particle exposures. Any information which suggests the need to modify the enforcement policy prior to this time or during the rulemaking process should be brought to the attention of the Commission.

(EDO) (SECY Suspend: 9/28/90)

SECY NOTE: THIS SRM, SECY-90-169, SECY-89-370, AND THE VOTE SHEETS OF COMMISSIONERS ROGERS AND CURTISS WILL BE MADE PUBLICLY AVAILABLE WHEN THE FINAL SRM IS AVAILABLE.

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The Advance Notice for Proposed Rulemaking on hot particles should be submitted to the Commission for review by September 1990.

(EDO) (SECY Suspense: 9/28/90)

Attachment:
As stated

cc: Chairman Carr
Commissioner Rogers
Commissioner Curtiss
Commissioner Remick
OGC
GPA

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May 18, 1990

MEMORANDUM FOR: Samuel J. Chilk, Secretary

FROM: Kenneth C. Rogers

SUBJECT: SECY-90-169, MODIFIED ENFORCEMENT POLICY FOR HOT PARTICLE EXPOSURES - REVISION TO INCORPORATE RECOMMENDATIONS MADE IN NCRP REPORT NO. 106

I am uncomfortable with the idea of relying on unwritten statements of what will be done, particularly when they are not consistent with what we are voting on. It sets a bad precedent in a number of ways.

I approve the proposed modification of the enforcement policy for hot particles as presented in SECY-90-169, based on the understanding I have that: 1) the modified enforcement policy will be transmitted to NRC licensees via generic communications as had been proposed in SECY-89-370; 2) in dealing with hot particle exposures where there is no direct contact with the skin, Part 20 exposure limits will be used when these are more appropriate than the 50 rad/exposure criterion stated in the modified enforcement policy; 3) as soon as additional clarifying information becomes available on the issues raised by RES, this is brought to the attention of the Commission so that a determination can be made as to whether further modifications of the enforcement policy are warranted while the rulemaking is in process; and 4) that the issues raised above be addressed more thoroughly in the rulemaking.

Please attach this memorandum to the SRM when it is issued.

Kenneth C. Rogers
Commissioner

cc: Chairman Carr
Commissioner Roberts
Commissioner Curtiss
Commissioner Remick

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Commissioner Curtiss' comments on SECY-90-169:

I disapprove of the proposed modification of the NRC Enforcement Policy for "hot particle" exposures and would have instead preferred adopting the staff proposal in SECY-89-370 as an interim measure for the following reasons:

- There remains a lack of consensus within the health physics community and there has yet to be an appropriate opportunity for public comment on the significant question of what nonstochastic effect(s) of potential health consequence should be prevented through hot particle exposure limits.

This would suggest that an interim policy concerning hot particle exposures should be targeted at preventing any such effects and should consider the uncertainties associated with available data.

- Notwithstanding the above the NCRP recommendations upon which the proposed enforcement policy revision is based are unclear as to exactly what nonstochastic effects the proposed limits are intended to prevent (i.e. the qualitative distinction between acute "deep" ulceration vs. acute "superficial" ulceration presented in NCRP Report No. 106 is vague). Additionally, the health risk estimates for hot particle exposures causing acute deep ulceration (the nonstochastic effect which purportedly can occur at or above the proposed exposure limits) are based upon what the NCRP characterizes as incomplete data.
- While the area of skin exposed to radiation from hot particles is, as the ACRS has suggested, a central issue, there are technically sound alternatives to establishing an upper limit on hot particle size and the proposed 1mm limit appears to be arbitrary (i.e. Why should different limits apply to exposures to radioactive particles with a largest dimension of 1.1mm?)
- If strictly enforced, the required assumption that a hot particle found on a person was in direct contact with the skin throughout the possible irradiation period may be unrealistic, overly restrictive, and will tend to nullify any potential ALARA benefit that the revised policy might have with respect to reducing personnel survey frequencies.
- As discussed in Enclosure 3 to SECY-90-169, Item 3., the NCRP recommendations appear to be internally inconsistent.