

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

April 22, 1988

MEMORANDUM FOR: Victor Stello, Jr.
Executive Director for Operations

FROM: Samuel J. Chilk, Secretary

SUBJECT: STAFF REQUIREMENTS - BRIEFING ON THE STATUS OF
EFFORTS TO DEVELOP A DE MINIMIS POLICY, 2:00
P.M., MONDAY, MARCH 14, 1988, COMMISSIONERS'
CONFERENCE ROOM, D.C. OFFICE (OPEN TO PUBLIC
ATTENDANCE)

The Commission has reconsidered the suspense date of September 9, 1988, for the staff's options paper on the de minimis policy requested in our previous SRM on the same subject (copy attached).

The staff is requested to submit by August 1, 1988, the options paper on a de minimis policy. This will assure the Commission reasonable time to review the proposed policy paper prior to the staff meeting with international groups on this subject.
(EDO) (SECY Suspense: 8/1/88)

Attachment:
As stated

cc: Chairman Zech
Commissioner Roberts
Commissioner Bernthal
Commissioner Carr
Commissioner Rogers
OGC
GPA
PDR - Advance
DCS - 016 Phillips

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

March 30, 1988

MEMORANDUM FOR: Victor Stello, Jr.
Executive Director for Operations

FROM: Samuel J. Chilk, Secreta

SUBJECT: STAFF REQUIREMENTS - BRIEFING ON THE STATUS OF
EFFORTS TO DEVELOP A DE MINIMIS POLICY, 2:00
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The Commission was briefed by the staff on the status of efforts to develop a Commission policy statement identifying a level of radiation risk or dose below which government regulation would be limited or unwarranted.

The Commission requested and the staff agreed to submit for Commission consideration options for a Commission policy which establishes a generic number for exposures that are below regulatory concern. The paper should discuss the uncertainties in our data base regarding radiation risk and should include the supporting scientific and legal rationale for all proposals. Consideration should be given to the assumptions made in establishing de facto BRC levels that appear in current NRC regulations. The staff should also discuss the approach for implementing such a number for multiple sources or licensed activities which does not require justification by individual licensees. This options paper is to be acted upon by the Commission prior to the staff meeting with international groups on this subject.

(EDO)

(SECY Suspense: 9/9/88)

Commissioner Bernthal requested the staff to provide him the bases and analytical techniques used by other agencies (e.g., EPA and FDA) in developing a de minimis policy/regulation on toxic waste (e.g., did they use a linear hypothesis?).

(EDO)

(SECY Suspense: 4/29/88)

Subsequent to the meeting, Commissioners Roberts and Bernthal requested that the staff's options paper should explicitly identify the undergirding assumptions and projected risk estimates, both societal and individual, used in the establishment of such BRC limits appearing in NRC regulations. Specific points staff should address include:

Ø In 1981, the Commission revised Part 20 to permit disposal of scintillation cocktail and animal carcasses containing trace concentrations of C or H without regard for their radioactivity. Also, specified curie amounts of both isotopes may be released annually into the sewerage system. Some regulatory control remains (e.g. record-keeping and limitation on use of contaminated carcasses) but in effect, once released to the environment NRC exerts no further control, thereby setting a floor to ALARA for these specific isotopes and applications. What calculations of societal and/or individual risk were employed in determination of these exempted levels? Were the models and assumptions the same as those used to arrive at tables of exempt quantities elsewhere in NRC regs?

Ø Staff raises the question on page 4 of SECY-88-69 as to whether a definition of "radioactive" can be usefully established. Not mentioned in Enclosure 2 is the fact that DOT regulations do precisely that (49 CFR 173.403). For purposes of transportation, a radioactive material is defined as a material having a specific activity of 2 nCi/g or greater. This definition is incorporated in NRC regulations (10 CFR 71.10) not as a definition per se, but as an exempt quantity under NRC transportation regulations. What is the origin of this 2 nCi/g limit? Given that a limit on total specific activity limit applies to any and all isotopes what assumptions were made regarding chemical form, pathways to the environment, critical organs, etc.?

Ø For purposes of enforcing the many de facto BRC limits which exist in NRC regulation what explicit allowance is made for instrument and measurement uncertainties? (Recall, that the Commission only just recently promulgated requirements for some measure of QA for dosimetry processors.)

Ø Acceptable levels of residual surface contamination are designed in Reg. Guide 1.86. Facilities with surface contamination levels below those specified may be released for unrestricted use. How many and what types of licensee

facilities have been decommissioned using these criteria?

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Ø The Commission was recently made aware of Some of the history behind the licensing of 3M static eliminator devices. The general license for these devices allowed up to 5 nCi of removal activity without any action being required on the part of the general licensees. Do similar provisions exist in other licenses? What is the origin of the 5 nCi allowable leakage rate? What assumptions of risk were made to justify this number?

cc: Chairman Zech
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