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In reply refer to: HH-60
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6 RECEIVED
ADVISORY COMMITTEE ON
REACTOR SAFEGUARDS U.S. N.R.C.

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Dr. Dade Muller
c/o Mr. Ragnwald Muller
U.S. Nuclear Regulatory Commission
Advisory Commission on Reactor
Safeguards
Washington, D.C. 20555

Dear Dade:

I am writing to suggest that the ACRS review the present AEC regulations given in 10/CFR 20. As you know, these regulations use the MPC's issued by the ICRP and NCRP in 1960 as their basic control on internal emitters. That is, for workers the limitation is 40 MPC-hours in one week without regard to the radiation dose actually received. In fact, dose to organs is not mentioned. Aside from the fact that this procedure does not account for the possibility of absorption through the skin, I have two other concerns.

1. The MPC's used are now 20 years old and do not account for much of the information accumulated in this time. Also, the ICRP will soon be coming out with a new internal dose document. While I hope that the NRC will not adopt these numbers, the possibility does exist.
2. I have been recently involved in a legal case where the question of whether the NRC regulations for inhalation had been exceeded. Because the NRC regulation was based only on air concentration, it was difficult to decide even though the estimated dose in the week of exposure was only 0.5 mrem.

I believe that a move should be started to revise 10CFR 20 using basic limits of organ dose and delegating the MPC's to tertiary standards. This would permit use of present technology on measurement of quantity in the body and would eliminate unnecessary legal tangles.

If I can help you on this or give further information, please let me know.

Sincerely yours,

J. W. Healy
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