AFFIRMATION VOTE

RESPONSE SHEET

TO: SAMUEL J. CHILK, SECRETARY OF THE COMMISSION

FROM: COMMISSIONER ROBERTS

SUBJECT: SECY-89-267 - 10 CFR PART 20 REVISION: SUPPLEMENTAL INFORMATION

APPROVED _____ DISAPPROVED X ABSTAIN _____

NOT PARTICIPATING _____ REQUEST DISCUSSION _____

COMMENTS:

see attached comment

Ivan Selin Roberts
SIGNATURE

5/23/90
DATE

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ENTERED ON "AS" YES ___ NO ___

COMMISSIONER ROBERTS' COMMENTS ON SECY-89-267
AND SECY-88-315

The General Counsel's office in a December 11, 1985 memorandum on the application of the "Backfit rule" to the Part 20 revision concluded that the staff's proposed rule revising Part 20 is a backfit within the meaning of the backfit rule. OGC also concludes in that memorandum that the finding required by 10 CFR 50.109(a)(3) and the analysis required by 10 CFR 50.109(c) are "essential parts of the rulemaking record and must be made available for public comment." On March 18, 1986, in voting to disapprove the backfit analysis proposed at that time, I stated: "I personally believe that the benefits accrued to issuing the Part 20 rule are not sufficient to override the requirements of the backfit rule" and that the proposed backfit analysis did not meet the "substantial increase in safety" standard.

My views have not changed, and after reviewing the current backfit analysis, I conclude that it, too, does not meet the "substantial increase in safety" standard. Thus, the decision I am asked to make centers on whether following the ICRP 26 recommendations and "updating the science" are sufficient basis for the proposed change to Part 20. (In this regard, I can see how the changes to Part 20 can be viewed as a "redefinition of the level of adequate protection.") For the following fundamental reasons, I conclude that they are not.

First, the current Part 20 provides adequate protection to the workers' and the public's health and safety. I am concerned that a case has not been made that the benefits of changing the current Part 20 to incorporate the ICRP 26 recommendations and methodology outweigh the disadvantages.[1] I also believe that simplicity should be of paramount interest to us as regulators since a complex system may be harder to understand by licensees and to enforce by us. The proposed Part 20 rule acknowledges that the current Part 20 is indeed adequate to protect the workers' and the public's health and safety. For example, the explicit limit to protect the embryo/fetus contained in the proposed Part 20, according to the current backfit analysis, "represents the largest estimated health benefit from the proposed Part 20" (my emphasis). Yet, licensees are already ensuring that there is additional protection for the "declared pregnant woman" and the "Regulatory Analysis for the Revision to

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[1]The "critical organ" concept would be replaced by one introduced by the ICRP and based on theoretical estimates of risks of radiation-induced fatal cancers or hereditary damage. These estimates are developed by the United National Scientific Committee on the Effects of Atomic Radiation (UNSCEAR). Under the proposed system, doses received from external and internal sources of radiation are combined. To allow for this summation, each specific organ is assigned a weighting factor that is proportional to the estimated risk to that organ per unit of radiation dose relative to the estimated risk from a uniform exposure to the whole body from the same unit of radiation dose.

10 CFR Part 20" supports this view.[2] The present Part 20 is working well, is well understood, and we have had good experience implementing and enforcing the current standards.

Secondly, after reviewing the different memoranda generated on this topic, there seems to be questions about the ICRP 26 recommendations themselves. It seems that "... the contention that the ICRP 26 methodologies are 'state-of-the-art' and scientifically supportable appears open to some challenge." Also it is my understanding that the 1977 ICRP recommendations are not fully consistent with the 1980 BEIR III nor the BEIR IV reports. I am uncomfortable "updating" the science to a 1977 ICRP guidance that continues to be revised when our system is working.

Finally, I am concerned about the validity of our cost numbers, in terms of actual costs to the licensees and to the NRC. The estimated costs to licensees associated with the proposed Part 20 changes range from 100 to 170 million dollars, or for nuclear power reactor licensees, 30 million for initial procedure modification and implementation and 4 million in additional costs per year thereafter. In my experience the NRC does many things well but estimating costs is not one. The NRC, in turn, would have to prepare 10 new regulatory guides and revise seven existing regulatory guides, with the largest effort affecting NRR and the Regions' inspection activities. Whether these costs are underestimated (more likely) or overestimated, they are not inconsequential, especially since the proposed changes to Part 20 appear to provide little or no net benefit in terms of substantive health and safety improvements over the present Part 20 requirements.

For the reasons I have outlined above, I conclude that promulgation of the proposed Part 20 is unwarranted.

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[2]"There is evidence that few pregnant women currently receive doses >0.5 rem (USNRC 1982). Several factors could acount for this trend. First, the NRC published a revised regulatory guide on prenatal radiation exposure in 1975 (USNRC 1975) which specifies that women assigned to work in a restricted area should be given specific instruction regarding prenatal exposure risks to the developing embryo and fetus. Women were instructed that they could request reassignment to nonradiation work if they were pregnant or expected to be soon. Today, most licensees either comply with or go beyond the recommendations in this regulatory guide. Two other factors that may contribute to the fact that few pregnant women currently receive doses >0.5 rem are the emphasis by ICRP (ICRP 1977) and NCRP (NCRP 1987) on limitation of dose to the unborn, and the trend toward reduced individual doses throughout the nuclear industry" (see Sections 4.1.1 and 4.3.1).