

'81 NOV -3 P3:09

October 28, 1981

OFFICE OF SECRETARY  
DOCKETING & SERVICE  
BRANCH *emp*

Secretary of the Commission  
U. S. Nuclear Regulatory Commission  
Washington, D. C. 20555

DOCKET NUMBER  
PROPOSED RULE *PR-Misc. Notice  
(Regulatory Guide)*

Attn: Docketing and Service Branch

Dear Sirs:

COMMENTS ON PROPOSED REVISION 2 TO REGULATORY GUIDE 8.13 - INSTRUCTION  
CONCERNING PRENATAL RADIATION EXPOSURE (August, 1981, Div. 8, Task OP 031-4)

The approach in the subject Regulatory Guide 8.13 is a distinct improvement over the current guide. The comparison between radiation risks and other risks to the unborn is an important concept for radiation workers to understand. A review of the draft identified several specifics which should be improved or corrected.

1. The current guide has a section of five alternatives to consider. This section should be retained in Revision 2 as a means of explaining the women's options.
2. There are several statements about the uncertainties concerning radiation ("Experts disagree ...", "Experts are not sure"). While the statements are true, they imply less is known about radiation than other insults to the body. Actually we know more about radiation; therefore, these statements should be modified.
3. The converse implication concerning knowledge appears on page 8.13-9. The use of four significant digits in the rate of occurrence for radiation implies far more accuracy than is justified. One significant digit would be appropriate.
4. The first sentence of the second full paragraph on page 8.13-11 (in particular the word "questions") is not a valid summary of the NCRP position expressed in Reference 13. This paragraph should be changed to:

*D509  
S/O  
Add: Ed. Hill*

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PL REGGD  
OB 13 C PDR

Acknowledged by card. *11/4/81 emp*

The National Council on Radiation Protection and Measurements (NCRP Report No. 53, Ref. 13) has taken the prudent position that birth defects or an increased risk of childhood cancer might occur at doses as low as 5 to 10 rad. Therefore, the NCRP recommends . . .

5. Table 1, Effect and Frequency of Certain Maternal Factors on Pregnancy Outcome, contains some ineptly produced data. Two references were checked against the presentation in Table 1, and glaring errors were found.

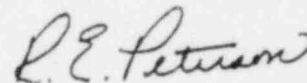
From reference (b) concerning cigarette smoking, a reported 20% and 35% increase in risk was somehow translated to rates of occurrence of 1 in 5 and 1 in 3. A better summary would be:

Non smoker		1 in 43
Less than 1 pack per day	Fetal death or	1 in 36
Pack or more per day	Infant death	1 in 30

Concerning aspirin, a rate of occurrence of 1 in 13 for clubfoot is indicated from reference (e). It is impossible to derive a valid rate of occurrence from the data presented in reference (e).

Since these two items are wrong, the remaining items become suspect; therefore, a competent person should review and correct all the information in Table 1.

Sincerely yours,



R. E. Peterson, Manager  
Safety Department

DOE/RL - JL Rhoades

W/WRDivision - RA Wiesemann