



UNITED STATES  
NUCLEAR REGULATORY COMMISSION  
WASHINGTON, D.C. 20555-0001

August 23, 2006

SECRETARY

COMMISSION VOTING RECORD

DECISION ITEM: SECY-06-0168

TITLE: STAFF COMMENTS ON THE DRAFT RECOMMENDATIONS  
OF THE INTERNATIONAL COMMISSION ON  
RADIOLOGICAL PROTECTION.

The Commission (with all Commissioners agreeing) approved the subject paper as recorded in the Staff Requirements Memorandum (SRM) of August 23, 2006.

This Record contains a summary of voting on this matter together with the individual vote sheets, views and comments of the Commission.

A handwritten signature in black ink, reading "Annette L. Vietti-Cook", is written over a horizontal line.

Annette L. Vietti-Cook  
Secretary of the Commission

Attachments:

1. Voting Summary
2. Commissioner Vote Sheets

cc: Chairman Klein  
Commissioner McGaffigan  
Commissioner Merrifield  
Commissioner Jaczko  
Commissioner Lyons  
OGC  
EDO  
PDR

## VOTING SUMMARY - SECY-06-0168

### RECORDED VOTES

	APRVD	DISAPRVD	ABSTAIN	NOT PARTICIP	COMMENTS	DATE
CHRM. KLEIN	X				X	8/17/06
COMR. McGAFFIGAN	X				X	8/18/06
COMR. MERRIFIELD	X				X	8/7/06
COMR. JACZKO	X					8/10/06
COMR. LYONS	X				X	8/3/06

### COMMENT RESOLUTION

In their vote sheets, all Commissioners approved the staff's recommendation and some provided additional comments. Subsequently, the comments of the Commission were incorporated into the guidance to staff as reflected in the SRM issued on August 23, 2006.

NOTATION VOTE

RESPONSE SHEET

TO: Annette Vietti-Cook, Secretary

FROM: CHAIRMAN KLEIN

SUBJECT: **SECY-06-0168 - STAFF COMMENTS ON THE DRAFT  
RECOMMENDATIONS OF THE INTERNATIONAL  
COMMISSION ON RADIOLOGICAL PROTECTION**

Approved xx Disapproved \_\_\_\_\_ Abstain \_\_\_\_\_

Not Participating \_\_\_\_\_

COMMENTS: Below \_\_\_\_\_ Attached xx None \_\_\_\_\_

  
\_\_\_\_\_  
SIGNATURE

8/17 /2006  
\_\_\_\_\_  
DATE

Entered on "STARS" Yes \_\_\_\_\_ No \_\_\_\_\_

**Chairman Klein's comments on SECY-06-0168, Staff Comments on the Draft  
Recommendations of the International Commission on Radiological Protection**

I commend the staff for its diligent and consistent long-term efforts in effectively advancing the NRC's interests in the realm of radiological protection, and I approve the staff's proposed comments on the latest iteration of the International Commission on Radiological Protection (ICRP) recommendations.

Fundamentally, the Commission should endorse radiological protection recommendations that can enable tangible improvements in providing for adequate protection of public health and safety, and that can be implemented by practitioners and regulatory authorities in a practical, timely, and cost effective manner. Therefore, I wholeheartedly agree with the staff's comment that, with the conclusion that there has not been any significant change in radiation risks, there is no compelling public health and safety argument to make any changes to the recommendations, or to national regulations that implement those recommendations. I would note that, in the case of the United States, the concept of national regulations extends to States.

The staff's comments clearly highlight two particular areas of concern.

First, I agree with the staff and Commissioners Lyons and Merrifield that a discussion regarding the termination of pregnancy is beyond the scope of the ICRP recommendations, and that paragraph 263 should be deleted. Moreover, I believe that the inappropriateness of including such a discussion is a basic issue worthy of being emphasized in a standalone general comment, as follows: "The NRC believes that discussions regarding the termination of pregnancy are beyond the scope of the ICRP's mission to advance the science of radiological protection. Such discussions should be held on case-by-case bases between competent medical practitioners and their patients, and it is therefore inappropriate for the ICRP to propose any numerical value that could be the basis for terminating a pregnancy."

Second, throughout the development of the 2005 ICRP recommendations and associated documents, the staff has effectively advocated the Commission's position that it is not necessary to develop a framework for radiological protection of non-human species. The staff should continue to advance this position, and should keep the Commission apprised of developments on this matter.

The staff should emphasize the above two areas as it participates in the comment development efforts of the Interagency Steering Committee on Radiation Standards and the Nuclear Energy Agency (NEA). Finally, coincident with the upcoming NEA/ICRP Forum, the staff should urge domestic stakeholders, particularly States, industry and professional organizations, and public interest groups, to submit their comments on the recommendations directly to the ICRP.

NOTATION VOTE

RESPONSE SHEET

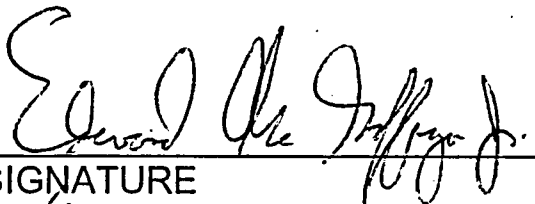
TO: Annette Vietti-Cook, Secretary

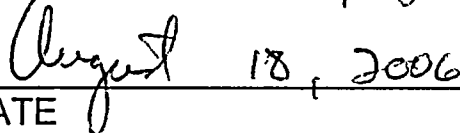
FROM: COMMISSIONER MCGAFFIGAN

SUBJECT: **SECY-06-0168 - STAFF COMMENTS ON THE DRAFT  
RECOMMENDATIONS OF THE INTERNATIONAL  
COMMISSION ON RADIOLOGICAL PROTECTION**

Approved X Disapproved \_\_\_\_ Abstain \_\_\_\_ Not Participating \_\_\_\_

COMMENTS: Below \_\_\_\_ Attached X None \_\_\_\_

  
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\_\_\_\_\_  
DATE

Entered on "STARS" Yes X No \_\_\_\_

**Commissioner McGaffigan's Comments on SECY-06-0168**

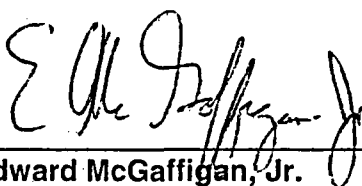
I approve the staff's proposed comments on the draft 2006 recommendations of the International Commission on Radiological Protection (ICRP). I appreciate the staff's detailed, timely, and comprehensive review of these recommendations. I agree with Commissioner Lyons that the staff should take a lead role in discussing these comments at the NEA/ICRP Forum later this month. I also want to thank the ACNW for its letter reports of June 8, 2006, and July 18, 2006, on these recommendations. I especially appreciate the Committee's June 8 frank assessment that "this ICRP document does not add value to the radiation protection programs in the United States, especially those promulgated by the Commission for its licensees and for licensees in Agreement States."

Like Commissioner Merrifield, I agree with all of the staff comments, but I want to register my strong agreement in three areas:

I join Commissioners Lyons and Merrifield and continue to support previous Commission decisions on the protection of non-human species. As I stated in my vote on SECY-04-0223, the strict standards for the protection of humans in NRC and EPA regulations are also fully protective of non-human species. I have seen no evidence to the contrary.

I also agree with the staff's comments on the current recommendations that ICRP should not propose numerical values, at 100 mGy or any other level, as an implied basis for terminating a pregnancy. This is clearly a matter which should be addressed on a case-by-case basis between a competent medical practitioner and the patient, as discussed by the Chairman in his vote.

Finally, I agree that the ICRP should also provide additional clear guidance on the limited utility of collective dose. We have a long-standing need for guidance on this matter, so we can move away from the practice of computing collective doses involving trivial doses to large populations. We have numerous examples where the collective dose concept leads to ridiculous extrapolations, including NASA's original 1995 estimate that an accidental re-entry of the Cassini probe during an Earth flyby in 1999 could have resulted in 2,300 potential latent cancer deaths, which was based on doses to 5 billion people worldwide, most of whom would receive far less than 1 mrem. I should note that NASA pointed out the absurdity of the calculation even as NASA felt compelled to make it. Similarly absurd calculations could be made on such items as the dangers of brick houses, granite countertops, ski vacations in Colorado, Wyoming, or Utah, or sleeping in double beds. If the collective dose concept has any use, it is extremely limited.

  
Edward McGaffigan, Jr.      8/13/06  
(Date)

NOTATION VOTE  
RESPONSE SHEET

TO: Annette Vietti-Cook, Secretary

FROM: COMMISSIONER MERRIFIELD

SUBJECT: **SECY-06-0168 - STAFF COMMENTS ON THE DRAFT  
RECOMMENDATIONS OF THE INTERNATIONAL  
COMMISSION ON RADIOLOGICAL PROTECTION**

Approved ☒ Disapproved ☐ Abstain ☐

Not Participating ☐

COMMENTS: Below ☐ Attached ☒ None ☐

  
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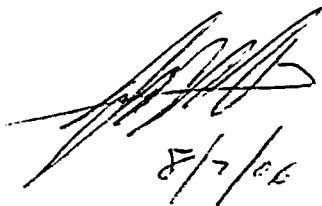
Entered on "STARS" Yes ☒ No ☐

Comments from Commissioner Merrifield on SECY-06-0168:

I approve, with relatively minor editorial corrections discussed below, the proposed staff comments on the draft recommendations of the International Commission on Radiological Protection (ICRP). I find the staff comments consistent with previous Commission decisions concerning these recommendations. I continue to support these previous Commission decisions, particularly as they relate to ICRP's proposed development of separate radiation standards for protection of non-human species. Although I agree with all the staff comments, I want to register my strong agreement in two additional areas. First, it is inappropriate for ICRP to propose any numerical values that could be used as the basis for terminating a pregnancy. Second, the ICRP needs to provide clear guidance with numerous examples of when it is appropriate to use collective dose and, more importantly, when it is not appropriate to use collective dose. The concept of collective dose has been applied in too many inappropriate applications world-wide.

The following are some editorial corrections that should be made to the enclosure which contains the detailed list of comments.

1. Comments 60 and 61 provide an adequate discussion of a specific problem(s), but they do not provide the corrections the staff desires to be made to the report. Staff needs to be clear what they want done to address the issue.
2. Comment 76 clearly indicates what the staff wants accomplished in the report but provides no justification for the action. Some type of brief justification should be provided.
3. For comment 78, the first two sentences are clear but the third sentence needs some type of lead in phrase to connect it to the idea in the first two sentences. Otherwise the third sentence is an apparent abrupt change in thought. A possible revision of the third sentence is "As an example, U.S. materials ...".



8/7/06



NOTATION VOTE

RESPONSE SHEET

TO: Annette Vietti-Cook, Secretary

FROM: COMMISSIONER JACZKO

SUBJECT: SECY-06-0168 - STAFF COMMENTS ON THE DRAFT  
RECOMMENDATIONS OF THE INTERNATIONAL  
COMMISSION ON RADIOLOGICAL PROTECTION

Approved X Disapproved \_\_\_\_\_ Abstain \_\_\_\_\_

Not Participating \_\_\_\_\_

COMMENTS: Below \_\_\_\_\_ Attached \_\_\_\_\_ None X

  
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8/9/06  
\_\_\_\_\_  
DATE

Entered on "STARS" Yes X No \_\_\_\_\_

NOTATION VOTE  
RESPONSE SHEET

TO: Annette Vietti-Cook, Secretary


FROM: COMMISSIONER LYONS

SUBJECT: **SECY-06-0168 - STAFF COMMENTS ON THE DRAFT  
RECOMMENDATIONS OF THE INTERNATIONAL  
COMMISSION ON RADIOLOGICAL PROTECTION**

Approved   x   Disapproved        Abstain       

Not Participating       

COMMENTS: Below        Attached   x   None       

  
Peter B. Lyons  
\_\_\_\_\_  
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8/3/06  
\_\_\_\_\_  
DATE

Entered on "STARS" Yes   x   No

### Commissioner Lyons' Comments on SECY-06-0168

I requested to convert SECY-06-0168 from an information paper to a notation vote paper. I felt that our position would be strengthened at the August 28-29, 2006, NEA/ICRP Forum by having Commission support for the staff's comments.

I approve the staff's activities, including transmitting comments to the International Commission on Radiological Protection (ICRP) on the ICRP 2006 draft Recommendations. I also encourage staff to take a lead role in discussing these comments and other ICRP recommendations at the upcoming NEA Forum on the Evolution of the System of Radiation Protection, subject to the following comments.

Staff should continue to support the open process that ICRP is using to gather feedback from the many groups interested in the development of these recommendations. Because the Draft 2006 recommendations do not appear to achieve the ICRP's stated objective to consolidate, simplify and elaborate on the previous recommendations I support staff in requesting that ICRP delay finalizing the draft 2006 recommendations until the objectives have been fulfilled. I also agree with the staff assessment that ICRP provides no compelling public health and safety argument for adopting the changes described in the draft ICRP recommendations.

Consistent with the Commission's SRM for SECY-004-0223, I also agree it is not necessary to develop a framework for radiological protection of non-human species, and Section 10 of the draft recommendations should be removed. I further support the staff continuing to express the Commission's opposition to developing standards for protection of flora and fauna to the ICRP and IAEA in the appropriate forums.


The staff should continue to challenge ICRP to clearly describe the technical basis for its decisions and to incorporate peer-reviewed scientific information that reflects the current state of knowledge, specifically in the areas of changes to radiation weighting factors, the establishment of gender-specific tissue weighting factors and in the application and implementation of the linear-no-threshold hypothesis. I support the Advisory Committee on Nuclear Waste's (ACNW) view that ICRP should not adopt a new set of tissue weighting factors and nominal risk coefficients until the assessment of the atomic-bomb data is completed and published.

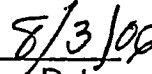
Further, I support ICRP's view that "Collective dose is mainly an instrument for optimization, for comparing radiological technologies and protection procedures. Collective dose is not intended as a tool for epidemiologic risk assessment and it is therefore inappropriate to use it in risk projections based on epidemiological studies." Wildly varying estimates of risk can be derived by misuse of collective dose which has led to criticism of using collective dose in decision making. In my view, such misuses of collective dose only serve to confuse and frighten the public. While I certainly agree with the ICRP statement that such calculations are, as they stated, "inappropriate," ICRP should be encouraged to provide stronger statements to further discourage misuse of this concept and to provide recommendations on the limited appropriate uses of collective dose.

I strongly concur with the staff's view that ICRP should not propose any numerical values that could be used as the basis for terminating a pregnancy and agree that such discussion should be removed from the ICRP recommendations document.

The staff should continue to monitor DOE Low Dose Radiation Research, and ICRP and other ongoing radiation protection activities to understand the boundaries of our scientific knowledge of low dose radiation effects.

I commend the NRC staff and the ACNW for their detailed and comprehensive review of the ICRP recommendations.

  
Peter B. Lyons

  
Date