

IRPA9
1996 International Congress on
Radiation Protection
April 14-19,1996
Vienna, Austria

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Abstract No.

Receipt

Author

Acceptance

Mini-Presentation

FORM FOR SUBMISSION OF ABSTRACTS
(Instructions for preparation on reverse)

PAPER TITLE

The HPS Position on Radon Health Risks

AUTHOR(S) NAME(S)

Raymond H. Johnson, Jr., President, HPS Radon Section

SUBMITTING AUTHOR

LAST NAME Johnson, Jr. FIRST NAME Raymond TITLE Mr.

AFFILIATION Communication Sciences Institute TEL 301-942-5946

STREET 3827 Farragut Avenue FAX 301-942-5948

CODE 20895 CITY KENSINGTON, MD COUNTRY U.S.A.

PRESENTING AUTHOR (IF DIFFERENT)

MAJOR SCIENTIFIC TOPIC NUMBER ./. (see page 7)

ABSTRACT (See instructions overleaf)

The Health Physics Society first published a position statement on radon in October 1990. In mid-1995 that statement is undergoing revision by the HPS Radon Section to reflect the continuing controversy on radon health risks. In particular, a January 1995 study by the National Cancer Institute (the Missouri Study) concluded that no correlation was demonstrated between radon and lung cancer incidence. This study provided material for the news media to widely proclaim that radon was a huge, costly, government hoax.

In June 1995, another study by the National Cancer Institute demonstrated a statistically significant increased lung cancer risk at levels equivalent to a lifetime exposure at 4 pCi/L. This study also confirmed previous estimates of 15,000 lung cancer deaths a year in the United States due to radon exposures. Among these estimated deaths, 10,000 were among smokers and former smokers, while 5,000 were among never-smokers (a much greater proportion than previously estimated).

Some health physicists are saying the radon action level at 4 pCi/L should be increased to at least 8 to 10 pCi/L. Some are also saying that the linear non-threshold dose model is not applicable to radon health risks and that radiation hormesis may apply. At the same time, other health physicists point out that radon is not only the greatest source of radiation energy deposition in the human body, it is greater than all other sources combined on the average. They contend that if we are concerned with any risks from radiation, then radon has to be the major focus of that concern.

The HPS position will provide guidance that recognizes the controversy on radon health risks and recommend prudent actions in keeping with the HPS mission to assure public health and safety.