



DOCKET NUMBER PR-Misc. Notice
PROPOSED RULE Reg Guide

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June 2, 1980

Mr. H. J. Pettengill
Office of Standards Development
U. S. Nuclear Regulatory Commission
Washington, D. C. 20555



Reference: Proposed Revision 2 to Regulatory Guide 8.14
Personnel Neutron Dosimeters dated February 1980.

Dear Mr. Pettengill:

I would like to present some thoughts for incorporation in the above referenced Regulatory Guide 8.14 based on my experience over the past few years associated with neutron dosimeters.

1. I agree with the stand the NRC has taken on the use of NTA film for neutron monitoring at Power Reactors "it (NTA films) is not an acceptable neutron dosimeter for use at power reactors."
2. Track Etch devices have been exposed in the containment of nuclear power plants. These devices were also found to be unacceptable as personnel neutron monitors. Examples of two Track Etch devices exposed in containment are as follows:

Neutron
Dose Equivalent
(measured with
survey meters)

Track Etch Devices
Commercial Vendors Responses

300 mrems
570 mrems
3230 mrems
170 mrems
0 mrems

I	II
m*	m
m	20 mrems
m	150 mrems
m	30 mrems
m	m

* m = "minimal" response interpreted as no response.

I therefore place Track Etch devices in the same category as NTA films - Unacceptable - until such time as better data is generated.

3. Techniques are available for measuring neutron spectra in containment and for calculating dose equivalent rates. Power Reactor Health Physics personnel should be required to:

Acknowledged by card. 6/12/80: mdu

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
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- 3(cont'd) (a) make spectra measurements,
(b) calculate response of survey meter to measured neutron spectra, and
(c) expose personnel monitoring devices to known neutron fluences encountered during plant operations.

Simply stated, the response of the devices should be determined in the environment in which they are to be used.

I hope the above proves useful in preparation of the above referenced Regulatory Guide.

Sincerely,


ROBERT M. RYAN
Director, Office of Radiation
& Nuclear Safety

RMR/ed