

APR 29 1985

MEMORANDUM FOR: C. J. Heltemes, Jr., Director
Office for Analysis and Evaluation
of Operational Data

FROM: Harold R. Denton, Director
Office of Nuclear Reactor Regulation

SUBJECT: PROGRAM PLAN FOR NEA SYMPOSIUM ON
REDUCING REACTOR SCRAM FREQUENCIES

We have reviewed the draft call for papers and proposed information request you sent us regarding the Nuclear Energy Agency (NEA) Symposium on reducing reactor scram frequencies planned for 1986. We enthusiastically support the idea of a symposium and generally concur with the scope and direction of the program as described in the two documents. Our specific comments regarding the information questionnaire are provided in the enclosure. We have no specific comments on the proposed call for papers at this time. We may have some recommendations for invited papers when the call for papers is actually issued.

Our comments have been discussed with Fred Hebdon of your staff. Please contact Mark Caruso (x27940) of the Operating Reactors Assessment Branch if you have any questions.

Original Signed by
H. R. Denton

Harold R. Denton, Director
Office of Nuclear Reactor Regulation

Enclosure:
As stated

cc w/enclosure:
F. Hebdon, AEOD
C. E. Rossi, IE

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ENCLOSURE

COMMENTS ON QUESTIONNAIRE RELATING TO REACTOR OPERATIONS RECORDS
AND DESIGN AND TECHNOLOGY OF REACTOR PROTECTION SYSTEMS

<u>Item</u>	<u>Comment</u>
I. (Reactor Operations Records)	<p>The following item should be added as I.f:</p> <p>f. Distinction should be made between inadvertent reactor trips caused by failures or errors affecting the protection and monitoring systems; and trips which result when actual nuclear steam supply system (NSSS) transients challenge the RPS.</p>
I.b (Definition)	<p>We believe that inadvertent reactor scrams which occur due to errors committed during surveillance testing of the reactor trip breakers should be included in the statistics.</p> <p>We feel that the following should <u>not</u> be included:</p> <ol style="list-style-type: none">1. Pre-planned tests in which rapid automatic insertion of the control and/or shutdown rods is expected.2. Pre-planned reactor trips from low power which are a part of a normal BWR shutdown.
I.C. (Definition)	<p>Reactor scram frequency should be stated in terms of numbers of scrams per calendar year as well as per thousand hours of reactor criticality.</p>
I.3.a (Signals)	<p>This should be re-written as follows:</p> <p>"Frequency of scrams caused by anticipatory reactor trip on turbine trip."</p> <p>This distinction is important since the anticipatory trip feature is bypassed on many plants when power level is below the steam dump and bypass system capacity.</p>

<u>Item</u>	<u>Comment</u>
I.3.b (Signals)	PWR scrams which occur due to low steam generator level and are caused by errors during manual control of feedwater or during switching from manual to auto feed control make-up a large share of trips caused by secondary signals and should be separated out.
I.4 (Causes)	<p>The following should be added as items d) and e):</p> <ul style="list-style-type: none">d) The frequency of scrams during surveillance testing.e) Frequency of scrams caused by malfunctions in safety and non-safety related systems.
I.6 (Additional Information)	<p>When determining elapsed time between consecutive scrams, distinction should be made between operating modes, e.g., there should be separate figures for time between scrams during power operation and time between scrams during startup operation.</p> <p>An additional item should be added as follows:</p> <ul style="list-style-type: none">- Correlation between reactor scram frequency and equipment failure due to end-of-life or lack of preventative maintenance.