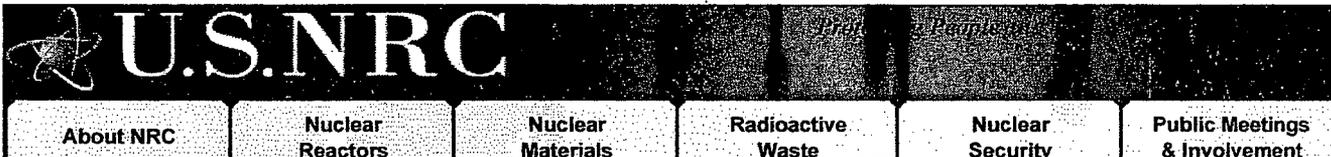


RAS J-47

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Official Transcript of Proceedings

NUCLEAR REGULATORY COMMISSION

Title: Advisory Committee on Reactor Safeguards

Docket Number: (not applicable)

Location: Rockville, Maryland

Date: Thursday, September 6, 2001

Work Order No.: NRC-004

Pages 304-491

U.S. NUCLEAR REGULATORY COMMISSION

In the Matter of Entergy (Pilgrim Nuclear Power Station)

Docket No. 50-293-LR Official Exhibit No. 17

OFFERED by: Applicant/Licensee Inter. Pilgrim Watch Ex 4

NRC Staff Other

IDENTIFIED on 4-10-08 Witness/Panel

Action Taken: ADMITTED REJECTED WITHDRAWN

Reported/Clerk Thibault

DOCKETED
USNRC

April 15, 2008 (10:00am)

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NUCLEAR REGULATORY COMMISSION

ADVISORY COMMITTEE ON REACTOR SAFEGUARDS
485TH ACRS MEETING

THURSDAY
SEPTEMBER 6, 2001
ROCKVILLE, MARYLAND

The Advisory Committee met at the Nuclear
Regulatory Commission, Two White Flint North, Room
T2B3, 11545 Rockville Pike, at 8:30 a.m.,
Dr. George E. Apostolakis, Chairman, presiding.

PRESENT:

- DR. GEORGE E. APOSTOLAKIS, Chairman
- DR. MARIO V. BONACA, Vice Chairman
- DR. F. PETER FORD, Member
- DR. DANA A. POWERS, Member
- DR. STEPHEN L. ROSEN, Member
- DR. WILLIAM J. SHACK, Member
- DR. THOMAS S. KRESS, Member at Large
- DR. JOHN D. SIEBER, Member
- DR. GRAHAM B. WALLIS, Member.
- DR. JOHN T. LARKINS, Executive Director
- CAROL A. HARRIS, ACRS/ACNW
- HOWARD J. LARSON, ACRS/ACNW
- SAM DURAISWAMY, ACRS
- DR. SHER BAHADUR, ACRS
- PAUL A. BOEHNERT, ACRS
- MICHAEL T. MARKLEY, ACRS

ACRS STAFF:

NRC STAFF:
RALPH LANDRY

Temp = SECW-028

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answers and all of that.

But what are you going to do when you have got that? I mean, there has still got to be some relationship with these uncertainties to margins and acceptance criteria, and so on.

I am not sure that the staff really has thought that through. Do you have any comments on that?

MR. LANDRY: At this point, we would just have to say we are continuing to study that, and we are trying to define.

DR. WALLIS: Well, that's typical. I mean, you see, there must be a criterion, some acceptance criterion, when they want to uprate the power to some point where it is meeting some boundary.

Then how big the uncertainties are in the code are very important to know, and whether you may step over that boundary or not. So it seems to me that maybe the acceptabilities then are going to depend upon the use.

Yes, they have got a good code, and they have an assessment of uncertainty, and then look at something like power uprate, and start using this code, and then you can figure out perhaps how big the uncertainty or what is the effect of the uncertainty on your decision about whether or not they should be allowed to uprate power.

MR. CARUSO: Dr. Wallis, this is Ralph Caruso from the staff. We do actually have some criterion in this area for AOs. For example, we set a safety limit minimum critical power ratios to ensure that 99.9 percent of the rods don't undergo boiling transition.

I think that your question is what does reasonable assurance mean, and I think that the ACRS has had this discussion with the Commission in the past about what reasonable assurance means, and I don't think there has ever been any definition that everyone has agreed to.

This is an eternal question that we try to deal with, and it comes out of judgment to a large extent at this point. When we can quantify it, for example, and say setting safety limit MICPRs, we try to do that.

We are trying to do our regulation in a more risk-informed manner, and that is another attempt to do it in a more quantifiable way. But right now these are the words that the law requires us to use to make a finding.

So those are, unfortunately, the words that we use and they are not well defined.

DR. WALLIS: But the law requires you to make a finding with 95 percent confidence.

MR. CARUSO: No, the law requires us to make a reasonable assurance finding.

DR. WALLIS: If your criterion is 95 percent confidence, then the fact that they have evaluated these uncertainties enables you to make that assessment.

MR. CARUSO: We could say that a 95 percent confidence does define reasonable assurance, but --

DR. WALLIS: That is the thing that I think is not being worked out yet. I mean, you have got the tools to do it, but if someone comes around like tomorrow and says reasonable assurance is 99 percent, then you have still got the tools to do it, but where you come out on allowing some change in the plant may be different.

MR. CARUSO: I really hate to pass the buck on this, but I do believe that this has been the subject of some extensive discussions with the Commission about the definition of reasonable assurance, and I don't believe that anyone has come up with an acceptable definition for all the parties involved.

DR. WALLIS: So maybe my --

MR. CARUSO: This is a little bit beyond my pay grade as they say.

DR. WALLIS: -- saying that you have got a good tool is, but the staff isn't quite sure how to use it, is a true statement.

MR. CARUSO: I can't explain why. I don't want to get into philosophy on this particular issue.

DR. WALLIS: It is not philosophy. It is really very real.