

PACKAGE ACCESSION NUMBER ML003719434

May 26, 2000

Dr. David C. Williams
8252 Raintree Drive, NE
Albuquerque, NM 87122

SUBJECT: YOUR LETTER TO DR. CHARLES E. ROSSI DATED AUGUST 7, 1999,
CONCERNING THE NRC'S RESOLUTION OF THE DIRECT CONTAINMENT
HEATING ISSUE

Dear Dr. Williams:

On March 9, 1997, you transmitted a report, "An Independent Critique of Containment Loads Modeling Used in the Direct Containment Heating (DCH) Issue Resolution Effort," prepared by you, to Mr. Thomas Kress of the Advisory Committee on Reactor Safeguards. In the report, you expressed a number of concerns with the methodology used to calculate containment loads in the resolution of the Direct Containment Heating (DCH) issue. In a letter from me dated February 2, 1999, I responded to the concerns expressed in your report. The response included an assessment of your concerns in the form of a table prepared by Mr. Wayne Hodges, who at the time was Director of the Division of Systems Technology. The table listed your concerns and responded to each one.

On May 26, 1999, you called Ms. Jean Lee, Senior Allegations Coordinator, NRR, and indicated that you had comments on my February 2, 1999, letter and attachment. Soon thereafter I assigned Dr. Charles E. Rossi to review your comments, and you were informed of this by Ms. Lee. In a letter to Dr. Rossi dated August 7, 1999, you provided a rebuttal to the responses in the February 2, 1999, letter and attachment from me. The purpose of this letter is to respond to your letter of August 7, 1999, to Dr. Rossi, and its attachment.

As you were informed, Dr. Rossi reviewed your August 7, 1999, letter and attachment. Dr. Rossi informed me of his conclusions in the enclosed memorandum to me. His review focused on whether the NRC needs to fund additional research and/or reconvene the previous or a new peer review group to resolve the specific issues raised in your March 9, 1997, report. In Dr. Rossi's memorandum to me, he addresses a number of the specific statements in your August 7 letter and its attachment, recommends that several key documents related to your concerns be placed in the NRC's Public Document Room, and provides a perspective of the relation of the DCH issue to reactor safety and the NRC's regulatory framework. He concludes that it is not necessary to address each of the specific issues raised by you or resolve differences between CONTAIN models and predictions, and the basic phenomenological modeling assumptions used in the DCH resolution. Dr. Rossi's conclusion is based on the fact that the development of the Two-Cell Equilibrium (TCE) code and validation against experimental data benefitted from separate parallel peer reviews. Furthermore, Dr. Rossi's review of the peer review process used for NUREG/CR-6075, Supp. 1, determined that the peer reviewers considered the technical issues important to DCH, including use of the TCE code, based on a fundamental technical understanding of each issue and how it was addressed in the resolution process.

I agree with Dr. Rossi's conclusion that the cost of further addressing the issues in your critique of March 9, 1997, is not warranted. I also agree with his recommendation to place his memorandum and the four documents listed in his memorandum in the NRC's Public Document Room. This letter to you will also be placed in the Public Document Room. We plan no further action with respect to your August 7, 1999, letter or your March 9, 1997, report.

I do however, want to acknowledge and thank you for your contributions to the CONTAIN code, which is considered one of the NRC's primary codes for use in design bases and beyond design bases analyses of nuclear power plant containment behavior. Your work at Sandia National Laboratories has been important to the mission of the NRC.

Sincerely,

/RA/

Ashok C. Thadani, Director
Office of Nuclear Regulatory Research

- Enclosures: 1) Memorandum from Charles E. Rossi to Ashok C. Thadani dated May 25, 2000, Subject: "Concerns of Dr. David C. Williams on the NRC's Resolution of the Direct Containment Heating Issue." **Accession Number ML003719169**
- 2) Letter from Charles G. Tinkler to Kenneth D. Bergeron dated February 7, 1996, commenting on the revised draft SAND 94-1174, "Assessment of the CONTAIN Direct Containment Heating (DCH) Model: Analyses of DCH Integral Experiments," dated August 1995 **Accession Number ML003719073.**
- 3) D.C. Williams, "An Independent Critique of Containment Loads Modeling Used in the Direct Containment Heating (DCH) Issue Resolution Effort," dated March 9, 1997. **Accession Number ML003719192**
- 4) D.C. Williams, et al., "Assessment of the CONTAIN Direct Containment Heating (DCH) Model: Analyses of DCH Integral Experiments," SAND 94-1174, Sandia National Laboratories, Draft dated November 10, 1996. **Accession Number ML003719476**
- 5) Letter from David C. Williams to Charles E. Rossi dated August 7, 1999, Subject: "Allegation No. NRR-1997-A-0063; NRR-1999-A-0039" with its attachment, "Rebuttal to NRC Responses to the March 9, 1997, Report Entitled, 'An Independent Critique of Containment Loads Modeling Used in the Direct Containment Heating (DCH) Issue Resolution Effort' " (Issues 30-54 are not included). **Accession Number ML003719084**

cc w/enclosures:

T. Kress, ACRS (T-2 E26)

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cc w/enclosures:

T. Kress, ACRS (T-2 E26)

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