



FOIA - 97-154

RESPONSE TYPE

FINAL

PARTIAL 2

DATE

JUN 30 1997

DOCKET NUMBER(S) (if applicable)

742005  
RESPONSE TO FREEDOM OF  
INFORMATION ACT (FOIA) REQUEST

REQUESTER

Mr. David Barry

## PART I. AGENCY RECORDS RELEASED OR NOT LOCATED (See checked boxes)

☐ No agency records subject to the request have been located.☐ No additional agency records subject to the request have been located.☐ Requested records are available through another public distribution program. See Comments section.☐ Agency records subject to the request that are identified in Appendix(es) \_\_\_\_\_ are already available for public inspection and copying at the NRC Public Document Room, 2120 L Street, N.W., Washington, DC.☒ Agency records subject to the request that are identified in Appendix(es) B are being made available for public inspection and copying at the NRC Public Document Room, 2120 L Street, N.W., Washington, DC, in a folder under this FOIA number.☐ The nonproprietary version of the proposal(s) that you agreed to accept in a telephone conversation with a member of my staff is now being made available for public inspection and copying at the NRC Public Document Room, 2120 L Street, N.W., Washington, DC, in a folder under this FOIA number.☐ Agency records subject to the request that are identified in Appendix(es) \_\_\_\_\_ may be inspected and copied at the NRC Local Public Document Room identified in the Comments section.☐ Enclosed is information on how you may obtain access to and the charges for copying records located at the NRC Public Document Room, 2120 L Street, N.W., Washington, DC.☒ Agency records subject to the request are enclosed.☐ Records subject to the request have been referred to another Federal agency(ies) for review and direct response to you.

## Fees

☐ You will be billed by the NRC for fees totaling \$ \_\_\_\_\_.☐ You will receive a refund from the NRC in the amount of \$ \_\_\_\_\_.☐ In view of NRC's response to this request, no further action is being taken on appeal letter dated \_\_\_\_\_, No. \_\_\_\_\_.

## PART II. A - INFORMATION WITHHELD FROM PUBLIC DISCLOSURE

☐ Certain information in the requested records is being withheld from public disclosure pursuant to the exemptions described in and for the reasons stated in Part II, B, C, and D. Any released portions of the documents for which only part of the record is being withheld are being made available for public inspection and copying in the NRC Public Document Room, 2120 L Street, N.W., Washington, DC in a folder under this FOIA number.

## COMMENTS

FBI  
0/1

SIGNATURE, DIRECTOR, DIVISION OF FREEDOM OF INFORMATION AND PUBLICATIONS SERVICES

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PDR FOIA  
BARRY97-154 PDR

**APPENDIX B**  
**RECORDS BEING RELEASED IN THEIR ENTIRETY**

<u>NO.</u>	<u>DATE</u>	<u>DESCRIPTION/(PAGE COUNT)</u>
1.	01/03/82	NRC Information Notice 92-02: RELAP5/MOD3 Computer Code Error Associated with the Conservation of Energy Equation (4 pages)
2.	04/06/84	Memo to C. O. Thomas from B. W. Sheron, Subject: Review of YAEC II.K.3.30 SBLOCA EM Model (34 pages)
3.	07/17/84	Memo to B. W. Sheron from E. D. Throm, Subject: Summary of 6/22/84 YAEC-NRC Meeting on RELAP5YA PWR SBLOCA EM Analysis (7 pages)
4.	06/01/88	Memo to S. A. Varga from J. Calvo (9 pages:)

PIERCE  
ATWOOD  
ATTORNEYS

FOIA/PA REQUEST

Case No: 97-154  
Date Rec'd: 5-1-97  
Action Off: fed  
Related Case:

DAVID E. BARRY

DIRECT  
207.791.1376

April 30, 1997

E-MAIL  
DBarry@  
PierceAtwood.com

**VIA UPS OVERNIGHT MAIL**

Director, Division of Freedom of Information and Publications Services  
Office of Administration  
U.S. Nuclear Regulatory Commission  
Washington, DC 20555

Re: **Freedom of Information Act Request**

Dear Sir or Madam:

Pursuant to the Freedom of Information Act, 5 U.S.C. 552, and the Nuclear Regulatory Commission's implementing regulations, 10 C.F.R. Part 9, I hereby request copies of or access to any information, including but not limited to: notes, letters, memoranda, drafts, minutes, diaries, logs, calendars, tapes, transcripts, summaries, interview reports, procedures, instructions, analyses, drawings, files, graphs, charts, maps, photographs, agreements, handwritten notes, studies, data, notebooks, telephone messages, computations, interim and/or final reports, status reports, and any and all other records or documents related to and/or generated in connection with:

1. The Yankee Atomic Electric Company RELAP5YA emergency core cooling system (ECCS) evaluation model;
2. Application of the RELAP5YA ECCS evaluation model to the Maine Yankee plant;
3. Three Mile Island Action Items II.K.3.30 and II.K.3.31 as applied to the Maine Yankee plant; and
4. The 2630 MWt power uprate for the Maine Yankee plant and the 2700 MWt power uprate for the Maine Yankee plant.

One Monument  
Square  
Portland, Maine  
04101-1110

VOICE  
207.791.1100

FAX  
207.791.1350

E-MAIL  
info@PierceAtwood.com

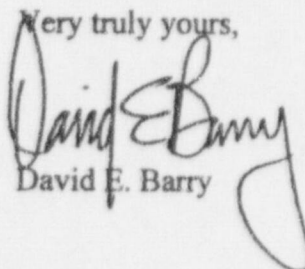
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Director, Division of Freedom of Information and Publications Services  
April 30, 1997  
Page 2

Pursuant to 10 C.F.R. § 9.23(b)(4)(i)(C), I specifically accept the cost involved in searching for and duplicating the information I have requested, and do not require advance notice of costs exceeding \$25.

I look forward to hearing from you within the ten days required by statute.

Very truly yours,

A handwritten signature in dark ink, appearing to read "David E. Barry". The signature is stylized with a large, looped "D" and a long, sweeping underline that extends to the right.

David E. Barry

DEB:bjf

C.2

UNITED STATES  
NUCLEAR REGULATORY COMMISSION  
OFFICE OF NUCLEAR REACTOR REGULATION  
WASHINGTON, D.C. 20555

January 3, 1992

NRC INFORMATION NOTICE 92-02: RELAP5/MOD3 COMPUTER CODE ERROR ASSOCIATED  
WITH THE CONSERVATION OF ENERGY EQUATION

Addressees

All holders of operating licenses or construction permits for nuclear power reactors.

Purpose

The U.S. Nuclear Regulatory Commission (NRC) is issuing this information notice to alert addressees of an error in the RELAP5/MOD3 computer code associated with the conservation of energy equation. The computer codes in the RELAP5 Series are general purpose, thermal hydraulic system codes used to simulate the response of systems such as the reactor coolant system (RCS) to transients and accidents. It is expected that recipients will review the information for applicability to their facilities and consider actions, as appropriate, to avoid similar problems. However, suggestions contained in this information notice are not NRC requirements; therefore, no specific action or written response is required.

Description of Circumstances

On November 25, 1991, Northeast Utilities forwarded the enclosed 10 CFR Part 21 initial notification to the NRC Operations Center, regarding an error in the RELAP5/MOD3 simulation of the response of the Haddam Neck Plant turbine room to a postulated steam line break. The equipment environmental qualification (EEQ) profile for the room would have been nonconservative by approximately 100°F had the simulation been accepted. Although the error in determining the environmental conditions could be significant, the effect of the error on the evaluation of the nuclear steam supply system (NSSS) response to a loss-of-coolant accident (LOCA) and steam line break has been determined to be negligible. Appropriate corrections in the code are the responsibility of the Idaho National Engineering Laboratory (INEL).

Codes in the RELAP5 Series are not intended to be used as containment analysis codes. Containment analysis specific codes exist for that purpose. The primary purpose of the RELAP5 codes is analysis of the response of the NSSS to accident and transient conditions.

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PDR IEE Notice 92-002

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This information notice requires no specific action or written response. If you have any questions about the information in this notice, please contact the technical contact listed below or the appropriate Office of Nuclear Reactor Regulation (NRR) project manager.

*Charles E. Rossi*  
Charles E. Rossi, Director  
Division of Operational Events Assessment  
Office of Nuclear Reactor Regulation

Technical contact: Nancy Campbell, NRR  
(301) 504-2836

Attachments:

1. Northeast Utilities 10 CFR Part 21 Notification
2. List of Recently Issued NRC Information Notices

## NORTHEAST UTILITIES



THE BRIDGEPORT LIGHT AND POWER PLANT  
WESTERN BRIDGEPORT LIGHT AND POWER PLANT  
WILKINS BRIDGEPORT LIGHT AND POWER PLANT  
WILKINS BRIDGEPORT LIGHT AND POWER PLANT  
WILKINS BRIDGEPORT LIGHT AND POWER PLANT

General Offices • Seiden Street, Berlin, Connecticut

P.O. BOX 270  
HARTFORD, CONNECTICUT 06141-0270  
(203) 665-8000

Nov. 25, 1991

NRC Operations Center

Fax. #(301) 492-8187

### SUBSTANTIAL SAFETY HAZARD 10CFR21

The purpose of this facsimile is to inform the NRC that on November 25, 1991, at 1605 hours, J.F. Opeka, Executive Vice President of Northeast Utilities (NU) determined that a substantial safety hazard (SSH) exists.

During an in-house engineering evaluation of the response of the Haddam Neck Plant Terry Turbine room to a postulated steam line break, an error was discovered in the RELAP5/MOD3 simulation. It was determined that the code was not conserving energy, and thereby had significantly under predicted the temperature in the Terry Turbine room. Had the simulation been accepted, the EEQ profile for the room would have been non-conservative by approximately 100° F..

The RELAP5 series of computer codes are general purpose, thermal hydraulic systems codes which are used to simulate the response of systems such as the RCS to transients and accidents. The codes are written to solve the equations of conservation of mass, energy and momentum within the system being modeled. The code solves for the system response by modeling the system as a series of control volumes connected by junctions and solving the conservation equations simultaneously in each volume and junction using a finite difference numerical scheme. The error appears to be associated with the conservation of energy equation.

While the error in determining environmental conditions can be significant, the impact of the error on evaluations of the NSSS response to LOCA and steam line break has been determined to be negligible. NU has made a tentative correction to its version of RELAP5/MOD3. A permanent correction of the error will be made to other NU codes, which are based on RELAP5, when the Idaho National Engineering Laboratory (INEL) provides the appropriate corrections. The impact of the error on licensing calculations will be formally assessed and reported via 10CFR50.46, if necessary.

According to 10CFR21.21(c)(3) ii, written notification to the NRC will be forthcoming within 30 days.

If you have any questions regarding this matter please call Bryan W. Cook at (203) 665-3718.

9112040224 1P.

Bryan W Cook 11/25/91

LIST OF RECENTLY ISSUED  
NRC INFORMATION NOTICES

Information Notice No.	Subject	Date of Issuance	Issued to
92-01	Cable Damage Caused by Inadequate Cable Installation Procedures and Controls	01/03/92	All holders of OLs or CPs for nuclear power reactors
91-87	Hydrogen Embrittlement of Raychem Cryofit Couplings	12/27/91	All holders of OLs or CPs for nuclear power reactors
91-86	New Reporting Requirements for Contamination Events at Medical Facilities (10 CFR 30.50)	12/27/91	All licensees authorized to use byproduct materials for human use.
91-85	Potential Failures of Thermostatic Control Valves for Diesel Generator Jacket Cooling Water	12/26/91	All holders of OLs or CPs for nuclear power reactors
91-84	Problems with Criticality Alarm Components/Systems	12/26/91	All Nuclear Regulatory Commission (NRC) fuel cycle licensees, interim spent fuel storage licensees, and critical mass licensees.
91-83	Solenoid-Operated Valve Failures Resulted in Turbine Overspeed	12/20/91	All holders of OLs or CPs for nuclear power reactors
91-18, Supp. 1	High-Energy Piping Failures Caused by Wall Thinning	12/18/91	All holders of OLs or CPs for nuclear power reactors
91-82	Problems with Diaphragms in Safety-Related Tanks	12/18/91	All holders of OLs or CPs for nuclear power reactors
91-81	Switchyard Problems that Contribute to Loss of Offsite Power	12/16/91	All holders of OLs or CPs for nuclear power reactors

= Operating License  
= Construction Permit

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