

AUG 15 1984

The Honorable Pete V. Domenici  
United States Senate  
Washington, D. C. 20510

Dear Senator Domenici:

This letter is in response to your letter of July 27, 1984, addressed to Mr. Carlton Kammerer of the NRC, which transmitted a letter from one of your constituents, Mr. Steve L. Benavidez of Las Cruces, New Mexico.

The central concern raised by Mr. Benavidez is: "If we intend to keep using nuclear reactors as a source of energy we must do something about the scram system." He cites two reactor operating events in which there was a partial failure of the reactor trip system ("scram" system). In 1980, at Browns Ferry Unit 3, 76 of the 185 control rods failed to insert fully. In 1983, at Salem Unit 1, the control rods failed to insert following an automatic trip signal, but did insert fully with a manual trip signal. Mr. Benavidez's information is based principally upon articles which appeared in the publication Nuclear Safety.

The NRC shares Mr. Benavidez's view that the reactor trip system is important to safety and NRC has long held a requirement that it must be highly reliable. The NRC has taken significant actions to assure the required reliability whenever operating experience has indicated a need to do so.

The NRC was immediately notified of both of the operating events referred to by Mr. Benavidez and took timely and effective actions in response. These actions were taken to assure that the specific plant involved was not restarted until corrective actions were undertaken, and that other plants took prompt actions to preclude similar events from occurring. The actions taken are described in the enclosed NRC reports on these events. These reports should supplement the information which Mr. Benavidez obtained from Nuclear Safety.

Immediately following each event, a team of NRC technical experts and management officials was dispatched to the reactor site to assess the situation. Simultaneously, the NRC issued Bulletins to all affected licensees to inform them of the occurrences and to require testing of the reactor trip system to confirm that similar weaknesses did not exist at their plants. After detailed technical review, the NRC established longer-term actions which were implemented via NRC Generic Letters to all affected operating reactors and applicants for operating licenses. These actions to assure the reliability of the reactor trip system are also presented in the enclosed reports.

As a separate but related action, the NRC accelerated its activities to establish new regulations (namely 10 CFR 50.62) addressing the possibility that the reactor trip system could fail completely. This action would require additional features to be installed at each reactor so that a greater degree of safety defense for shutdown would exist even in the event that the existing reactor trip system failed.

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AUG 15 1984

In short, you can be assured that actions have been taken to assure that each reactor can be safely and promptly shutdown under all foreseeable situations.

We believe that, as a regulatory agency, the NRC has acted promptly, responsibly, and effectively to assure that the nuclear reactors are not operated with an undue risk to public health and safety. We trust that this response to your July 27, 1984 letter will be sufficient to address the concerns of your constituent. If any further effort on our part is necessary, please do not hesitate to contact us.

Sincerely,

Original signed by  
Victor Stello

William J. Dircks  
Executive Director for Operations

Enclosures:

1. NUREG-0785 "Safety Concerns Associated with Pipe Breaks in the BWR Scram System"
2. NUREG-0803 "Generic Safety Evaluation Report Regarding Integrity of BWR Scram System Piping"
3. NUREG-0995 "Safety Evaluation Report Related to Plant Restart of Salem Nuclear Generating Station, Unit Nos. 1 and 2"
4. NUREG-1000 "Generic Implications of ATWS Events at the Salem Nuclear Power Plant" (Volume 1 and Volume 2)

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\*PREVIOUS CONCURRENCE SEE DATE

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UNITED STATES  
NUCLEAR REGULATORY COMMISSION  
WASHINGTON, D. C. 20555

The Honorable Pete V. Domenici  
United States Senate  
Washington, D. C. 20510

Dear Senator Domenici:

This letter is in response to your letter of July 27, 1984, addressed to Mr. Carlton Kammerer of the NRC, which transmitted a letter from one of your constituents, Mr. Steve L. Benavidez of Las Cruces, New Mexico.

The central concern raised by Mr. Benavidez is: "If we intend to keep using nuclear reactors as a source of energy we must do something about the scram system." He cites two reactor operating events in which there was a partial failure of the reactor trip system ("scram" system). In 1980, at Browns Ferry Unit 3, 76 of the 185 control rods failed to insert fully. In 1983, at Salem Unit 1, the control rods failed to insert following an automatic trip signal, but did insert fully with a manual trip signal. Mr. Benavidez's information is based principally upon articles which appeared in the publication Nuclear Safety.

The NRC shares Mr. Benavidez's view that the reactor trip system is important to safety and NRC has long held a requirement that it must be highly reliable. The NRC has taken significant actions to assure the required reliability whenever operating experience has indicated a need to do so.

The NRC was immediately notified of both of the operating events referred to by Mr. Benavidez and took timely and effective actions in response. These actions were taken to assure that the specific plant involved was not restarted until corrective actions were undertaken, and that other plants took prompt actions to preclude similar events from occurring. The actions taken are described in the enclosed NRC reports on these events. These reports should supplement the information which Mr. Benavidez obtained from Nuclear Safety.

Immediately following each event, a team of NRC technical experts and management officials was dispatched to the reactor site to assess the situation. Simultaneously, the NRC issued Bulletins to all affected licensees to inform them of the occurrences and to require testing of the reactor trip system to confirm that similar weaknesses did not exist at their plants. After detailed technical review, the NRC established longer-term actions which were implemented via NRC Generic Letters to all affected operating reactors and applicants for operating licenses. These actions to assure the reliability of the reactor trip system are also presented in the enclosed reports.

As a separate but related action, the NRC accelerated its activities to establish new regulations addressing the possibility that the reactor trip system could fail completely. A new regulation (namely, 10 CFR 50.62) now requires that a separate system be provided at each reactor to provide automatic shutdown of the reactor by alternate and diverse mechanisms in the event that the reactor trip system should fail.

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In short, you can be assured that actions have been taken to assure that each reactor can be safely and promptly shutdown under all foreseeable situations.

We believe that, as a regulatory agency, the NRC has acted promptly, responsibly, and effectively to assure that the nuclear reactors are not operated with an undue risk to public health and safety. We trust that this response to your July 27, 1984 letter will be sufficient to address the concerns of your constituent. If any further effort on our part is necessary, please do not hesitate to contact us.

Sincerely,

William J. Dircks  
Executive Director for Operations

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FROM <b>Sen. Pete V. Domenici</b>		ACTION CONTROL COMPL DEADLINE	DATES <b>8/15/84</b>	CONTROL NO. <b>14683</b>
TO: <b>Kammerer</b>		INTERIM REPLY		DATE OF DOCUMENT <b>7/27/84</b>
DESCRIPTION <input checked="" type="checkbox"/> LETTER <input type="checkbox"/> MEMO <input type="checkbox"/> REPORT <input type="checkbox"/> OTHER		FINAL REPLY	<i>5/ Hello for Dench 8/15/84</i>	PREPARE FOR SIGNATURE OF: <input type="checkbox"/> CHAIRMAN <input checked="" type="checkbox"/> EXECUTIVE DIRECTOR OTHER _____
Encloses ltr fm Steve L. Benavidez concerning SCRAM (Safety <del>and</del> Control Rod Automatic Mechanism) System		FILE LOCATION	SPECIAL INSTRUCTIONS OR REMARKS  <b>Mark envelope ATTN: Marco A. Caceres.</b>	
ASSIGNED TO	DATE	INFORMATION ROUTING		
Denton, NRR	8/1/84	Heltewes		
Eisenhut	8/1/84	GCunningham		
<i>Curtisfield</i>	<i>8/6/84</i>	Case/Denton		
		PPAS		
		SECY-14-0782		

NRC FORM 232 (6-80)

EXECUTIVE DIRECTOR FOR OPERATIONS  
PRINCIPAL CORRESPONDENCE CONTROL

CORRESPONDENCE CONTROL TICKET Sen Pete Domenici

NUMBER: 84-0782

LOGGING DATE: 7/30/84

OFFICE OF THE SECRETARY

ACTION OFFICE: EDO

AUTHOR: Sen Pete Domenici, Const Ref

AFFILIATION: Steve L. Benavidez

LETTER DATE: 7/27/84 FILE CODE:

ADDRESSEE: OCA

SUBJECT: Upgrading the scram system for safe usage in nuc reactors

ACTION: Direct Reply..Suspense: Aug 8

DISTRIBUTION: OCA to Ack

SPECIAL HANDLING: None

SIGNATURE DATE:

Rec'd Off. EDO  
Date... *8-1-84*  
Time... *8:11*

FOR THE COMMISSION: BACamp