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Docket No. 50-331

Mr. Duane Arnold, President  
Iowa Electric Light & Power Company  
Post Office Box 351  
Cedar Rapids, Iowa 52406

Dear Mr. Arnold:

Reference is made to your letter of December 27, 1978 (IE-78-1879) proposing to use control rod drive scram insertion times based upon those that have actually been measured at the Duane Arnold Energy Center in place of the previous scram times used in plant safety analyses. Confirming our phone discussions, we request the additional information identified in the enclosure to complete our review.

Sincerely,

Original Signed by  
T. A. Ippolito

Thomas A. Ippolito, Chief  
Operating Reactors Branch #3  
Division of Operating Reactors

Enclosure:  
Request for Additional  
Information

cc: see next page

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OFFICE	ORB#3	ORB#3				
SURNAME	RClark	Tippolito				
DATE	5/1/79	5/1/79				

Iowa Electric Light & Power Company - -

cc:

Mr. Robert Lowenstein, Esquire  
Harold F. Reis, Esquire  
Lowenstein, Newman, Reis and Axelrad  
1025 Connecticut Avenue, N. W.  
Washington, D. C. 20036

Cedar Rapids Public Library  
426 Third Avenue, S. E.  
Cedar Rapids, Iowa 52401

REQUEST FOR ADDITIONAL INFORMATION

1. Please provide a description of the statistical analysis and a compilation of the data used in the NEDO-24087-3 submittal.
2. Our preliminary evaluation indicates that some method is needed to assure that there is no significant deviation from the conclusions in your submittal (e.g., specification of tolerance limits between measured scram times and Technical Specification limits). Please propose such a method.

MARCH 22 1978

Docket No. 50-331

Iowa Electric Light & Power Company  
ATTN: Mr. Duane Arnold  
President  
P. O. Box 351  
Cedar Rapids, Iowa 52406

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NRC PDR  
GLear  
SSheppard  
RClark  
Attorney, OELD  
OI&E (3)  
DEisenhut  
TBAbernathy  
JRBuchanan  
ACRS (16)

Gentlemen:

Enclosed for your information is a copy of a Notice of Granting  
an Exemption from the Requirements of General Design Criterion 50,  
"Containment Design Basis", of Appendix A to 10 CFR Part 50 for the  
Duane Arnold Energy Center which has been filed with the Office  
of the Federal Register for publication.

Sincerely,

Original signed by

George Lear, Chief  
Operating Reactors Branch #3  
Division of Operating Reactors

Enclosure:  
Exemption

cc w/enclosures:  
See next page

AP 3

GD

OFFICE ➤	ORB #3	ORB #3	ORB #3			
SURNAME ➤	SSheppard:mjif	RClark	GLear			
DATE ➤	3/16/78	3/ /78	3/27/78			



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

Docket  
50-331

February 28, 1978

All Operating BWR Licensees (Except for Humboldt)

Gentlemen:

The NRC staff has completed its review of the generic Mark I Containment Short Term Program conducted by the Mark I Owners Group and the associated plant-unique information which you provided with respect to your facility's containment system. The results of our review are documented in the staff's "Mark I Containment Short Term Program Safety Evaluation Report," NUREG-0408, December 1977. A copy of this document is enclosed for your information.

Based upon our review, we have concluded that licensed Mark I BWR facilities can continue to operate safely, without undue risk to the health and safety of the public, during an interim period of approximately two years while a methodical, comprehensive Long Term Program (LTP) is conducted. This conclusion has been made based on our determination (1) that the magnitude and character of each of the hydrodynamic loads resulting from a postulated design basis loss of coolant accident (LOCA) have been adequately defined for use in the Short Term Program (STP) structural assessment of the Mark I containment system; and (2) that, for the most probable loads induced by a postulated design basis LOCA, a safety factor to failure of at least two exists for the weakest structural or mechanical component in the containment system for each operating Mark I BWR facility.

As described in Section IV of NUREG-0408, our evaluation of the capability of your facility's Mark I containment system to withstand the recently identified LOCA-related hydrodynamic suppression pool loads indicates that, although each of the structural and mechanical components of your containment system meet the STP structural acceptance criteria (i.e., a safety factor to failure of at least two), the demonstrated safety margins of certain components under these loading conditions is less than that which is necessary to satisfy the requirements of Section III of the ASME Boiler and Pressure Vessel Code. Consequently, we have concluded that the

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conditions and has concluded that sufficient margin exists to preclude undue risk to the health and safety of the public. This evaluation is documented in the staff's "Mark I Containment Short Term Program Safety Evaluation Report," NUREG-0408, December 1977.

This exemption is granted for an interim period of approximately two years while a more detailed review is conducted. At the conclusion of this review, the design safety margin of the containment system for (Facility Name) will be restored to that which was originally intended at the time (Facility Name) was licensed for operation. The basis for this exemption is set forth in the letter to the licensee granting the exemption, dated February , 1978.

The Commission has determined that the granting of this exemption will not result in any significant environmental impact and that pursuant to 10 CFR Section 51.5(d)(4) an environmental impact statement or negative declaration and environmental impact appraisal need not be prepared in connection with this action.

For further details with respect to this action, see (1) the Commission's letter to the licensee dated February , 1978, and (2) the Commission's

"Mark I Containment Short Term Program Safety Evaluation Report," NUREG-0408, December 1977.

These items are available for public inspection at the Commission's Public Document Room, 1717 H Street, N.W., Washington, D. C. and at the \_\_\_\_\_ (LPDR) . A copy of item (1) may be obtained upon request addressed to the U.S. Nuclear Regulatory Commission, Washington, D.C. 20555, Attention: Director, Division of Operating Reactors. A copy of item (2) may be obtained upon request addressed to the National Technical Information Service, Springfield, Virginia 22161.

Dated at Bethesda, Maryland this \_\_\_\_\_.

FOR THE NUCLEAR REGULATORY COMMISSION

\_\_\_\_\_, Chief  
Operating Reactors Branch  
Division of Operating Reactors

Iowa Electric Light & Power Company - -

cc:

Mr. Robert Lowenstein, Esquire  
Harold F. Reis, Esquire  
Lowenstein, Newman, Reis and Axelrad  
1025 Connecticut Avenue, N. W.  
Washington, D. C. 20036

Cedar Rapids Public Library  
426 Third Avenue, S. E.  
Cedar Rapids, Iowa 52401



Enclosures:

1. NUREG-0408, "Mark I Containment  
Short Term Program Safety  
Evaluation Report"
2. Federal Register Notice

SAMPLE FEDERAL REGISTER NOTICE

UNITED STATES NUCLEAR REGULATORY COMMISSION

DOCKET NO.

LICENSEE

NOTICE OF GRANTING AN EXEMPTION FROM THE  
REQUIREMENTS OF GENERAL DESIGN CRITERION 50,  
"CONTAINMENT DESIGN BASIS", OF APPENDIX A  
TO 10 CFR PART 50

The U.S. Nuclear Regulatory Commission (The Commission) has granted an exemption from the requirements of General Design Criterion 50, "Containment Design Basis", of Appendix A to 10 CFR Part 50 to (Licensee) (the Licensee). This exemption relates to the demonstrated safety margin of the Mark I containment system for (Facility Name) for recently identified hydrodynamic suppression pool loads associated with a postulated design basis loss of coolant accident and provides for operation under the conditions specified in the NRC staff's "Mark I Containment Short Term Program Safety Evaluation Report" and under any resulting Technical Specification requirements. To this extent, this exemption encompasses any related requirements of 10 CFR Part 50, Section 50.55(a), and General Design Criterion 1. This exemption is effective as of the date of its issuance.

The Commission has evaluated the demonstrated safety margin of the containment system for (Facility Name) under present

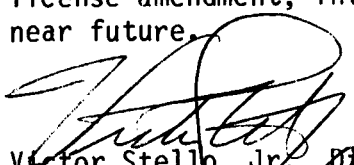
demonstrated safety margin of your facility's containment system with respect to such loading conditions does not comply with our current interpretation of "sufficient margin" as prescribed in General Design Criterion (GDC) 50, "Containment Design Basis", of Appendix A to 10 CFR Part 50. For long term operation of your facility, we will require that the structural and mechanical components of your facility's containment system meet the acceptance criteria of the ASME Boiler and Pressure Vessel Code to the maximum extent practicable for the loads and loading combinations identified in the Mark I Containment Long Term Program and approved by the NRC staff.

However, we find that: (1) your facility's containment system design still retains sufficient margin under present conditions to preclude failure and thus provides reasonable assurance of no undue risk to the health and safety of the public, (2) the objective of the Mark I Containment LTP, i.e., to restore the originally intended design safety margins for each Mark I containment system, is acceptable, and (3) the Mark I Owner's Program Action Plan for the LTP is reasonably designed to satisfy the LTP objectives. Therefore, we find that operation of your facility, in conformance with the conditions specified in NUREG-0408, will not endanger life or property or the common defense and security.

In the absence of any safety problem associated with operation of your facility until the LTP is completed, there appears to be no public interest consideration favoring restriction of the operation of your facility. Accordingly, pursuant to 10 CFR Part 50, Section 50.12, you are hereby granted an exemption from GDC-50, with respect to LOCA-related hydrodynamic suppression pool loads, for an interim period until completion of the LTP (approximately two years), provided that the conditions specified in NUREG-0408 and any resulting Technical Specification requirements are maintained. To this extent, this exemption encompasses any related requirements of 10 CFR Part 50, Section 50.55(a), and GDC-1.

A sample FEDERAL REGISTER Notice related to this action is also enclosed. The Notice that is filed with the Office of the Federal Register for each individual plant will be provided at a later date.

As discussed in Section III.C. of NUREG-0408, operating and surveillance requirements on drywell/wetwell differential pressure and torus water levels will be incorporated, by license amendment, into your facility Technical Specifications in the near future.



Victor Stello, Jr., Director  
Division of Operating Reactors  
Office of Nuclear Reactor Regulation


Enclosures:  
See Page 3

"Mark I Containment Short Term Program Safety Evaluation Report," NUREG-0408, December 1977.

These items are available for public inspection at the Commission's Public Document Room, 1717 H Street, N.W., Washington, D. C. and at the Cedar Rapids Public Library, 426 Third Avenue, S. E., Cedar Rapids, Iowa 52401. A copy of item (1) may be obtained upon request addressed to the U.S. Nuclear Regulatory Commission, Washington, D.C. 20555, Attention: Director, Division of Operating Reactors. A copy of item (2) may be obtained upon request addressed to the National Technical Information Service, Springfield, Virginia 22161.

Dated at Bethesda, Maryland this 22nd day of March 1978.

FOR THE NUCLEAR REGULATORY COMMISSION

A handwritten signature in cursive script that reads "George Lear". The signature is written in dark ink and is positioned above the printed name and title.

George Lear, Chief  
Operating Reactors Branch #3  
Division of Operating Reactors

UNITED STATES NUCLEAR REGULATORY COMMISSION

DOCKET NO. 50-331

IOWA ELECTRIC LIGHT & POWER COMPANY

NOTICE OF GRANTING AN EXEMPTION FROM THE  
REQUIREMENTS OF GENERAL DESIGN CRITERION 50,  
"CONTAINMENT DESIGN BASIS", OF APPENDIX A  
TO 10 CFR PART 50

The U.S. Nuclear Regulatory Commission (The Commission) has granted an exemption from the requirements of General Design Criterion 50, "Containment Design Basis", of Appendix A to 10 CFR Part 50 to Iowa Electric Light & Power Company (the Licensee). This exemption relates to the demonstrated safety margin of the Mark I containment system for the Duane Arnold Energy Center for recently identified hydrodynamic suppression pool loads associated with a postulated design basis loss of coolant accident and provides for operation under the conditions specified in the NRC staff's "Mark I Containment Short Term Program Safety Evaluation Report" and under any resulting Technical Specification requirements. To this extent, this exemption encompasses any related requirements of 10 CFR Part 50, Section 50.55(a), and General Design Criterion 1. This exemption is effective as of the date of its issuance.

The Commission has evaluated the demonstrated safety margin of the containment system for the Duane Arnold Energy Center under present

conditions and has concluded that sufficient margin exists to preclude undue risk to the health and safety of the public. This evaluation is documented in the staff's "Mark I Containment Short Term Program Safety Evaluation Report," NUREG-0408, December 1977.

This exemption is granted for an interim period of approximately two years while a more detailed review is conducted. At the conclusion of this review, the design safety margin of the containment system for the Duane Arnold Energy Center will be restored to that which was originally intended at the time Duane Arnold Energy Center was licensed for operation. The basis for this exemption is set forth in the letter to the licensee granting the exemption, dated February 28, 1978.

The Commission has determined that the granting of this exemption will not result in any significant environmental impact and that pursuant to 10 CFR Section 51.5(d)(4) an environmental impact statement or negative declaration and environmental impact appraisal need not be prepared in connection with this action.

For further details with respect to this action, see (1) the Commission's letter to the licensee dated February 28, 1978, and (2) the Commission's

Iowa Electric Light & Power Company - 2 -

MARCH 22 1978

cc:

Mr. Robert Lowenstein, Esquire  
Harold F. Reis, Esquire  
Lowenstein, Newman, Reis and Axelrad  
1025 Connecticut Avenue, N. W.  
Washington, D. C. 20036

Office for Planning and Programming  
523 East 12th Street  
Des Moines, Iowa 50319

Chairman, Linn County  
Board of Supervisors  
Cedar Rapids, Iowa 52406

Iowa Electric Light & Power Company  
ATTN: Ellery L. Hammond  
P. O. Box 351  
Cedar Rapids, Iowa 52406

Chief, Energy Systems Analysis Branch (AW-459)  
Office of Radiation Programs  
U. S. Environmental Protection Agency  
Room 645, East Tower  
401 M Street, S. W.  
Washington, D. C. 20460

U. S. Environmental Protection Agency  
Region VII  
ATTN: EIS COORDINATOR  
1735 Baltimore Avenue  
Kansas City, Missouri 64108

Cedar Rapids Public Library  
426 Third Avenue, S. E.  
Cedar Rapids, Iowa 52401

NOVEMBER 3 1978

(50-331)

Mr. Samuel J. Tuthill  
Senior Vice President  
Iowa Electric Light & Power Company  
P. O. Box 351  
Cedar Rapids, Iowa 52406

Dear Mr. Tuthill:

Thank you for your letter of October 6, 1978 offering the use of the auditorium in your corporate headquarters for the technical meeting to be held in Cedar Rapids on November 14, 1978. I appreciate your offer and your comments but we have already contracted with the Ramada Inn on Route 218 south of Cedar Rapids for a meeting room. Your commitment on keeping the public informed regarding operations at the Duane Arnold Energy Center is appreciated.

Sincerely,

Original Signed by  
H. R. Denton

Harold R. Denton, Director  
Office of Nuclear Reactor Regulation

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DATE	10/30/78	10/30/78	10/30/78	10/1/78	10/1/78	10/2/78



Mr. Samuel J. Tuthill  
 Senior Vice President  
 Iowa Electric Light and Power Company  
 P. O. Box 351  
 Cedar Rapids, Iowa 52406

Dear Mr. Tuthill:

Thank you for your letter of October 6, 1978 offering the use of the auditorium in your corporate headquarters for the technical meeting to be held in Cedar Rapids on November 14, 1978. I appreciate your offer and your comments but we have already contracted with the Ramada Inn on Route 218 south of Cedar Rapids for a meeting room. Your comments are in keeping with the conscientious effort Iowa Electric Light and Power Company has always made to keep the public informed regarding operations at the Duane Arnold Energy Center.

Sincerely,

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Harold R. Denton, Director  
 Office of Nuclear Reactor Regulation

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