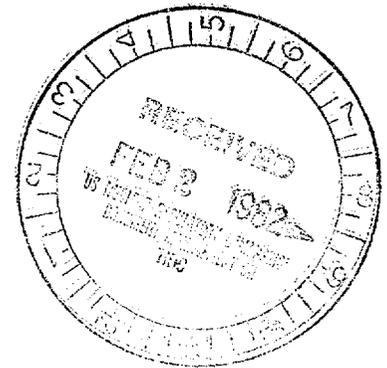


Docket No. 50-331

JAN 19 1982



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

Dear Mr. Arnold:

The Commission has issued the enclosed Order modifying the Order dated January 13, 1981 for the Duane Arnold Energy Center. This Order continues in effect the exemption and extends the completion date for installation of plant modifications needed to comply with the staff's Acceptance Criteria contained in Appendix A to NUREG-0661 to no later than prior to the start of Cycle 7 for completion of major modifications and prior to July 1, 1983 for completion of the remaining modifications.

The completion schedule reflected in this Order is that which was contained in the Mark I Owners Group submittal dated June 29, 1981 or as subsequently agreed upon by you and the staff as confirmed in your December 16, 1981 letter and approved by the Commission.

The granting of this extension is based on information provided to the staff by you and the Mark I Owners Group. Unforeseen difficulties and delays were identified primarily related to one or more of the following: (1) torus and torus attached piping analyses; (2) equipment delivery; (3) the use of interpretations and/or alternate approaches to the NUREG-0661 Acceptance Criteria; (4) plant unique design and modification problems; and (5) slippages in refueling outages.

We have reviewed your schedule revisions and believe an acceptable balance has been achieved between the modifications completed which provide a significant improvement in the safety margin and the granting of additional time for completion of the remaining modifications which will fully restore the originally intended safety margin. The plant-unique analyses for your facility should be submitted for confirmatory review in accordance with the schedule provided in the June 29, 1981 Mark I Owners Group Status Summary Report or as subsequently agreed upon by you and the staff.

CP
3

OFFICE ▶	.....	.....	.....	.....	.....	.....	.....
SURNAME ▶	.....	.....	.....	.....	.....	.....	.....
DATE ▶	.....	.....	.....	.....	.....	.....	.....

Mr. Duane Arnold

- 2 -

The issuance of this modifying Order provides an extension of the exemption from General Design Criterion 50 of Appendix A to 10 CFR Part 50 previously granted to the affected licensee on January 13, 1981. This exemption concerns the minimum margins of safety in the containment design. As part of the Mark I Containment Short-Term Program (STP), the staff determined that a margin of safety of at least two in the containment design was sufficient to assure the containment function in the event of a design basis loss-of-coolant accident (LOCA) and, therefore, provided an adequate basis for continued plant operation until the completion of the Long-Term Program (LTP). The objective of the LTP, which will be completed when the provisions of the enclosed Order are satisfied, is to restore the originally intended margins of safety in the containment design (approximately three to four).

A copy of the enclosed Order is being filed with the Office of the Federal Register for publication.

Sincerely,

Original signed by
D. B. Vassallo

Domenic Vassallo, Chief
Operating Reactors Branch #2
Division of Licensing

Enclosure:
Order

cc: w/enclosure
See next page

Distribution:	Docket File	NRC PDR	Local PDR	ORB#2 Rdg	D. Eisenhut
S. Norris	B. Siegel	OELD	I&E(4)	T. Barnhart-4	L. Schneider
D. Brinkman	ACRS-10	Gray	KEccleston	R. Diggs	NSIC
TERA	OPA-C. Miles	Extra(5)	SECY	ASLAB	D. Vassallo

Concurrence by OELD on Vermont Yankee constitutes concurrence on all Mark I Order and Exemption Extensions.

[Handwritten signature]

[Handwritten signature]

OFFICE ▶	ORB#2	ORB#2	ORB#2	ORB#2	DL:AD OR	DL:DEPDIR	DL:DIR	OELD
SURNAME ▶	SNorris	BSiegel	KEccleston	DVassallo	TNovak	RPurple	DEisenhut	
DATE ▶	1/15/82	1/15/82	1/15/82	1/15/82	1/16/82	1/17/82	1/18/82	1/17/82

Mr. Duane Arnold
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

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: D. L. Mineck
P. O. Box 351
Cedar Rapids, Iowa 52406

U.S. Environmental Protection Agency
Region VII Office
Regional Radiation Representative
324 East 11th Street
Kansas City, Missouri 64106

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

U.S. Nuclear Regulatory Commission
Resident Inspector's Office
Rural Route #1
Palo, Iowa 52324

James G. Keppler
Regional Administrator, Region III
U.S. Nuclear Regulatory Commission
799 Roosevelt Road
Glen Ellyn, IL 60137

UNITED STATES OF AMERICA
 NUCLEAR REGULATORY COMMISSION

In the Matter of)	
IOWA ELECTRIC LIGHT & POWER COMPANY	)	Docket No. 50-331
CENTRAL IOWA POWER COOPERATIVE)	
CORN BELT POWER COOPERATIVE)	
(Duane Arnold Energy Center))	

MODIFICATION OF JANUARY 13, 1981 ORDER

I.

The Iowa Electric Light and Power Company, et. al. (the licensee) is the holder of Facility Operating License No. DPR-49 which authorizes the licensee to operate the Duane Arnold Energy Center (the facility) at steady state reactor core power levels not in excess of 1658 megawatts thermal (rated power). The facility is a boiling water reactor located at the licensee's site near Palo in Linn County, Iowa.

II.

On January 13, 1981 the Commission issued an Order modifying the license requiring: (1) the licensee to promptly assess the suppression pool hydrodynamic loads in accordance with NEDO-21888 and NEDO-24583-1 and the Acceptance Criteria contained in Appendix A to NUREG-0661 and (2) design and install any plant modifications needed to assure that the facility conforms to the Acceptance Criteria contained in Appendix A to NUREG-0661. The Order, published in the Federal Register on January 28, 1981 (46 FR 9282), required installation of any plant modifications needed to provide compliance with the Acceptance Criteria in Appendix A to NUREG-0661 be completed not later than June 30, 1982 or, if the plant is shutdown on that date, before the resumption of power operation thereafter.

III.

On October 31, 1979 the staff issued an initial version of its acceptance criteria to the affected licensees. These criteria were subsequently revised in February 1980 to reflect acceptable alternative assessment techniques which would enhance the implementation of this program. Throughout the development of these acceptance criteria, the staff has worked closely with the Mark I Owners Group in order to encourage partial plant-unique assessments and modifications to be undertaken.

Since the development of these acceptance criteria, significant progress has been made by the licensee in meeting the Order requirements. However, in the June 29, 1981 Mark I Owners Group Status Summary Report, the licensee identified unforeseen difficulties and delays encountered primarily related to one or more of the following: (1) torus and torus attached piping analyses; (2) equipment delivery; (3) the use of interpretations and/or alternate approaches to the NUREG-0661 Acceptance Criteria; (4) plant-unique design and modification problems; and (5) slippages in refueling outages that have necessitated revision of the Order date.

The major modifications, which are those associated with the torus, vent system, internal structures and safety relief valve piping, which comprise approximately 75% of the total program effort, will be completed within four months of the existing Order date. The remaining items to be completed are primarily associated with the torus attached piping modifications.

The Commission believes that substantial improvements have already been made in the margins of safety of the containment systems and expects improvements will continue to be made during the period until all the modifications required for compliance with this Order are completed. The Commission further believes an acceptable balance has been achieved between completion of most of the major modifications, which provide significant improvement in the safety margin, and the granting of additional time for completion of the remaining modifications which fully restore the originally intended safety margin. In consideration of the range of completion dates submitted by all of the affected licensees and an assessment of the nature of the remaining effort involved in the analysis, design and installation of the needed plant modifications, the Commission has concluded that the licensee's proposed completion schedule is both responsive and practicable.

The Commission has, therefore, determined to modify the January 13, 1981 Order to extend the previously imposed completion date for needed plant modifications. This Order continues in effect the exemption to General Design Criterion 50 of Appendix A to 10 CFR Part 50 granted on January 13, 1981.

4

IV.

Accordingly, pursuant to the Atomic Energy Act of 1954, as amended, including Sections 103 and 161i, and the Commission's rules and regulations in 10 CFR Parts 2 and 50, IT IS ORDERED that the completion date specified in Section V of the January 13, 1981, "Order for Modification of License," is hereby changed to read as follows: "prior to the start of Cycle 7 for completion of major modifications and prior to July 1, 1983 for completion of the remaining modifications." The Order of January 13, 1981, except as modified herein, remains in effect in accordance with its terms.

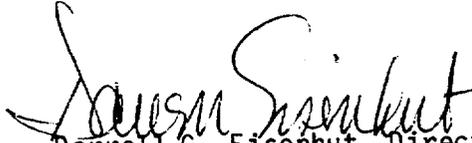
V.

The licensee may request a hearing on this Order within 30 days of the date of publication of this Order in the Federal Register. A request for hearing shall be submitted to the Director, Office of Nuclear Reactor Regulation, U.S. Nuclear Regulatory Commission, Washington, D.C. 20555. Copies of the request shall also be sent to the Secretary of the Commission and the Executive Legal Director at the same address.

If a hearing is requested by the licensee, the Commission will issue an order designating the time and place of any such hearing. If a hearing is held, the issue to be considered at such a hearing shall be whether the completion date specified in Section V of the January 13, 1981, "Order for Modification of License," should be changed to "prior to the start of Cycle 7 for completion of major modifications and prior to July 1, 1983 for completion of the remaining modifications."

This Order shall become effective upon expiration of the period within which a hearing may be requested or, if a hearing is requested, on the date specified in an order issued following further proceedings on this Order.

FOR THE NUCLEAR REGULATORY COMMISSION



Darrell G. Eisenhut, Director
Division of Licensing
Office of Nuclear Reactor Regulation

Dated at Bethesda, Maryland,
this 19th day of January 1982