

FEB 22 1974

Docket No. 50-331

Iowa Electric Light and Power Company
ATTN: Duane Arnold, President
Security Building
P. O. Box 351
Cedar Rapids, Iowa 52406

Gentlemen:

The Atomic Energy Commission has issued Facility Operating License No. DPR-49. The licensees of DPR-49 are Iowa Electric Light and Power Company, Central Iowa Power Cooperative and Corn Belt Power Cooperative. DPR-49 authorizes operation of the Duane Arnold Energy Center in accordance with the Technical Specifications, Appendices A & B, attached thereto. The steady state reactor core power levels authorized by DPR-49 shall not exceed 1658 megawatts thermal. A copy of the license and technical specifications are enclosed.

Note that the Technical Specifications specify that the licensee shall not undertake initial criticality until specifically approved in writing by the Commission. Representatives of the Division of Regulatory Operations will be at the site during fuel loading and will verify that the assessment of the preoperational test data, the Surveillance Test procedures and the review of non-conformance reporting has been completed. We will inform you promptly of the results of their review.

A related notice, which is being forwarded to the Office of the Federal Register for filing and publication, is enclosed for your information.

Four signed originals of Amendment No. 1 to Indemnity Agreement No. B-68, which covers the activities authorized under License No. DPR-49, are enclosed for review and acceptance by the licensees. One copy of this agreement should be retained by each licensee and one copy signed by all licensees should be returned to this office.

Sincerely,

for ¹⁵ D. VASSALLO
R. C. DeYoung, Assistant Director
for Light Water Reactors Group 1
Directorate of Licensing

Enclosures:
See Page Two

App'd LB

OFFICE ➤						
SURNAME ➤						
DATE ➤						

FEB 22 1974

Enclosures:

1. License No. DPR-49 w/Tech. Specs. A & B
2. Federal Register Notice
3. Indemnity Agreement - Amendment No. 1 to B-68

cc: Jack R. Newman, Esq.
 Harold F. Reis, Esq.
 Newman, Reis & Axelrad
 1025 Connecticut Avenue, N.W.
 Washington, D. C. 20036

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

Mr. Dudley Henderson
 Chairman, Linn County
 Board of Supervisors
 Cedar Rapids, Iowa 52406

Mr. Ed Vest
 Environmental Protection Agency
 1735 Baltimore Avenue
 Kansas City, Missouri 64108

Mr. J. R. Buchanan
 Assistant Director
 Nuclear Safety Information Center
 Oak Ridge National Lab
 P. O. Box Y
 Oak Ridge, Tennessee 37830

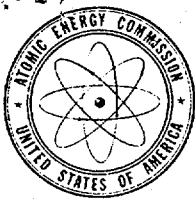
Mr. T. B. Abernathy
 U. S. Atomic Energy Commission
 Division of Technical Information Ext.
 Document Management Branch
 P. O. Box 62
 Oak Ridge, Tennessee 37830

bcc: A. Rosenthal, ASLAB
 N. H. Goodrich, ASLBP

Distribution:

AEC PDR
 Local PDR
 Docket File
 LWR 1-2 File
 RP Reading(w/o Tech.Specs.)
 R. Newton, OGC
 W. Massar, OGC
 RO (3)
 N.Dube(w/o Tech. Specs.)
 M. Jinks (w/2 encls.)
 R. C. DeYoung
 R. Vollmer
 C.Hebron,F&M(w/o Tech.Specs)
 D.Foster,F&M(w/o Tech.Specs)
 Ellen Brown, F&M
 A.Braitman,OAI(w/o Tech.
 Specs.)
 G. Owsley
 M. Maigret
 S.Kari (w/o Tech. Specs.)
 W.Miller,DR:AO(w/o Tech
 Specs)
 F. St. Mary, EP-4
 S. Sheppard, EP-4 (w/0
 TechSpecs)
 D. Muller, AD/EP
 K. Goller, LWR 1-3
 D. Vassallo, LWR 1-1
 ACRS (16)

OFFICE ▶	L:LWR 1-2	L:LWR 1-2	OGC	OAI	L:AD/EP	L:AD/LWR 1
SURNAME ▶	Maignet:eg	WButler	RAS	ABraitman	DMuller	RCDeYoung
DATE ▶	2/22/74	2/22/74	2/22/74	2/22/74	2/22/74	2/22/74



UNITED STATES
ATOMIC ENERGY COMMISSION
WASHINGTON, D.C. 20545

IOWA ELECTRIC LIGHT AND POWER COMPANY
CENTRAL IOWA POWER COOPERATIVE
CORN BELT POWER COOPERATIVE
DOCKET 50-331
DUANE ARNOLD ENERGY CENTER
FACILITY OPERATING LICENSE

License No. DPR-49

1. The Atomic Energy Commission (the Commission) having found that:
 - A. The application for license filed by Iowa Electric Light and Power Company, Central Iowa Power Cooperative and Corn Belt Power Cooperative (the licensees) complies with the standards and requirements of the Atomic Energy Act of 1954, as amended (the Act), and the Commission's rules and regulations set forth in 10 CFR Chapter I and all required notifications to other agencies or bodies have been duly made;
 - B. Construction of the Duane Arnold Energy Center (facility) has been substantially completed in conformity with Construction Permit No. DPPR-70; the application, as amended; the provisions of the Act; and the rules and regulations of the Commission;
 - C. The facility will operate in conformity with the application, as amended; the provisions of the Act; and the rules and regulations of the Commission;
 - D. There is reasonable assurance: (i) that the activities authorized by this operating license can be conducted without endangering the health and safety of the public; and (ii) that such activities will be conducted in compliance with the rules and regulations of the Commission;
 - E. Iowa Electric Light & Power Company is technically qualified and the licensees are financially qualified to engage in the activities authorized by this operating license in accordance with the rules and regulations of the Commission;
 - F. The licensees have satisfied the applicable provisions of 10 CFR Part 140, "Financial Protection Requirements and Indemnity Agreements", of the Commission's regulations;

- G. The issuance of this operating license will not be inimical to the common defense and security or to the health and safety of the public;
 - H. After weighing the environmental, economic, technical, and other benefits of the facility against environmental costs and considering available alternatives, the issuance of Facility Operating License No. DPR-49 is in accordance with 10 CFR Part 50, Appendix D, of the Commission's regulations and all applicable requirements of said Appendix D have been satisfied;
 - I. The receipt, possession, and use of source, by-product and special nuclear material as authorized by this license will be in accordance with the Commission's regulations in 10 CFR Part 30 and 70, including 10 CFR Section 30.33, 70.23 and 70.31.
2. Facility Operating License No. DPR-49 is hereby issued to the Iowa Electric Light and Power Company (IEL&P), Central Iowa Power Cooperative (CIPCO) and Corn Belt Power Cooperative (Corn Belt) to read as follows:
- A. This license applies to the Duane Arnold Energy Center, a boiling water reactor and associated equipment (the facility), owned by the licensees and operated by IEL&P. The facility is located on the licensees' site near Palo in Linn County, Iowa. This site consists of approximately 500 acres adjacent to the Cedar River and is described in the "Final Safety Analysis Report" as supplemented and amended (Amendments 1 through 14) and the Environmental Report as supplemented and amended (Supplements 1 through 5).
 - B. Subject to the conditions and requirements incorporated herein, the Commission hereby licenses:
 - (1) Iowa Electric Light & Power Company, pursuant to Section 104b of the Act and 10 CFR Part 50, "Licensing of Production and Utilization Facilities", to possess, use, and operate the facility; and CIPCO and Corn Belt to possess the facility at the designated location in Linn County, Iowa, in accordance with the procedures and limitations set forth in this license;

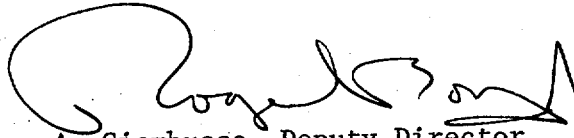
- (2) IEL&P, pursuant to the Act and 10 CFR Part 70, "Special Nuclear Material", to receive, possess and use at any time up to 3500 kilograms of U-235 in reactor fuel assemblies enriched in the U-235 isotope in connection with operation of the facility;
 - (3) IEL&P, pursuant to the Act and 10 CFR Part 30, "Rules of General Applicability to Licensing of Byproduct Material", to receive, possess, and use in connection with operation of the facility:
 - (a) Any byproduct material with Atomic Numbers 3 to 83, inclusive, without restrictions as to chemical and physical form, not to exceed 1 millicurie each, total not to exceed 50 millicuries;
 - (b) Cobalt 60, in sealed sources not to exceed 15 millicuries;
 - (c) Strontium 90, in sealed sources not to exceed 5 millicuries;
 - (d) Cesium 137, in sealed sources not to exceed a total of 210 curies;
 - (e) Antimony 124, in sealed sources not to exceed four sources each of 1200 curies;
 - (f) Americium 241, in sealed sources not to exceed 6 curies; and
 - (4) IEL&P, pursuant to the Act and 10 CFR Parts 30 and 70, to possess, but not to separate, such by-product and special nuclear materials as may be produced by the operation of the facility.
- C. This license shall be deemed to contain and is subject to the conditions specified in the following Commission regulations in 10 CFR Chapter I: Part 20, Section 30.34 of Part 30, Sections 50.54 and 50.59 of Part 50, and Section 70.32 of Part 70; is subject to all applicable provisions of the Act and to the rules, regulations, and orders of the Commission now or hereafter in effect; and is subject to the additional conditions specified or incorporated below:
- (1) Maximum Power Level

IEL&P is authorized to operate the Duane Arnold Energy Center at steady state reactor core power levels not in excess of 1658 megawatts (thermal).
 - (2) Technical Specifications

The Technical Specifications contained in Appendices A & B attached hereto are hereby incorporated in this license. IEL&P shall operate the facility in accordance with the Technical Specifications.

- D. This license is effective as of the date of issuance and shall expire at midnight on June 21, 2010.

FOR THE ATOMIC ENERGY COMMISSION

A handwritten signature in dark ink, appearing to read 'A. Giambusso', is written over the printed name.

A. Giambusso, Deputy Director
for Reactor Projects
Directorate of Licensing

Attachment:

Appendices A & B - Technical Specifications

Date of Issuance: FEB 22 1974

UNITED STATES ATOMIC ENERGY COMMISSION

DOCKET NO. 50-331

IOWA ELECTRIC LIGHT AND POWER COMPANY

CENTRAL IOWA POWER COOPERATIVE

CORN BELT POWER COOPERATIVE

(DUANE ARNOLD ENERGY CENTER)

NOTICE OF ISSUANCE OF FACILITY OPERATING LICENSE

Notice is hereby given that the Atomic Energy Commission has issued Facility Operating License No. DPR-49 to Iowa Electric Light and Power Company, Central Iowa Power Cooperative, and Corn Belt Power Cooperative authorizing operation of the Duane Arnold Energy Center in accordance with the provisions of the license and the Technical Specifications. The steady state reactor core power levels authorized by the license shall not exceed 1658 megawatts thermal. The Duane Arnold Energy Center is a boiling water nuclear reactor located at the licensees' site near Palo in Linn County, Iowa.

The Commission has made appropriate findings as required by the Atomic Energy Act of 1954, as amended (the Act), and the Commission's rules and regulations in 10 CFR Chapter I, which are set forth in the license. The application for the license complies with the standards and requirements of the Act and the Commission's rules and regulations.

The license is effective as of its date of issuance and shall expire on June 21, 2010.

A copy of (1) Facility Operating License No. DPR-49, complete with Technical Specifications (Appendices "A" and "B"); (2) the report of the Advisory Committee on Reactor Safeguards, dated March 13, 1973; (3) the Directorate of Licensing's Safety Evaluation, dated January 1973; (4) Supplement No. 1 to the Safety Evaluation, dated March 2, 1973; (5) Supplement No. 2

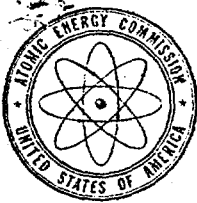
to the Safety Evaluation, dated April 9, 1973; (6) Supplement No. 3 to the Safety Evaluation, dated February 20, 1974; (7) the Final Safety Analysis Report and amendments thereto; (8) the applicants' Environmental Report, dated April 1971, revised November 1971, and supplements thereto; (9) the Draft Environmental Statement, dated November 1972; and (10) the Final Environmental Statement, dated March 1973, are available for public inspection at the Commission's Public Document Room at 1717 H Street, N.W., Washington, D. C. and at the Reference Service, Cedar Rapids Public Library, 426 Third Avenue, S.E., Cedar Rapids, Iowa 52401. A copy of the license and the Safety Evaluation and Supplements thereto may be obtained upon request addressed to the United States Atomic Energy Commission, Washington, D. C. 20545, Attention: Deputy Director for Reactor Projects, Directorate of Licensing.

Dated at Bethesda, Maryland, this 22nd day of February, 1974.

FOR THE ATOMIC ENERGY COMMISSION



Raymond R. Powell, Acting Chief
Light Water Reactors Projects Branch 1-2
Directorate of Licensing



UNITED STATES
ATOMIC ENERGY COMMISSION
WASHINGTON, D.C. 20545

Docket Nos. 70-1384
50-331

AMENDMENT TO INDEMNITY AGREEMENT NO. B-68

AMENDMENT NO. 1

Effective February 22, 1974, Indemnity Agreement No. B-68 between Iowa Electric Light and Power Company, Central Iowa Power Cooperative, and Corn Belt Power Cooperative and the Atomic Energy Commission, dated May 15, 1973, is hereby amended as follows:

Item 2a of the Attachment to the indemnity agreement is deleted in its entirety and the following substituted therefor:

Item 2 - Amount of financial protection

- | | |
|-----------------|---|
| a. \$ 1,000,000 | (From 12:01 a.m., May 15, 1973, to
12:00 midnight, February 21, 1974
inclusive) |
| \$95,000,000 | (From 12:01 a.m., February 22, 1974) |

Item 3 of the Attachment to the indemnity agreement is deleted in its entirety and the following substituted therefor:

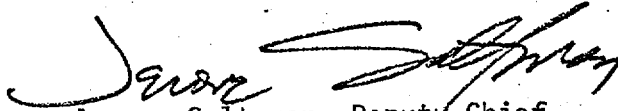
Item 3 - License number or numbers

- | | |
|----------|---|
| SNM-1349 | (From 12:01 a.m., May 15, 1973, to
12:00 midnight, February 21, 1974
inclusive) |
| DPR-49 | (From 12:01 a.m., February 22, 1974) |

Item 5 of the Attachment to the indemnity agreement is amended by adding the following:

Nuclear Energy Liability Policy (Facility Form) No. MF-72
issued by Mutual Atomic Energy Liability Underwriters.

FOR THE UNITED STATES ATOMIC ENERGY COMMISSION



Jerome Saltzman, Deputy Chief
Office of Antitrust & Indemnity
Directorate of Licensing

Accepted _____, 1974

By _____
IOWA ELECTRIC LIGHT AND POWER COMPANY

Accepted _____, 1974

By _____
CENTRAL IOWA POWER COOPERATIVE

Accepted _____, 1974

By _____
CORN BELT POWER COOPERATIVE

CHECKLIST FOR ISSUANCE OF FACILITY LICENSE

APPLICANT Iowa Electric Light & Power Company DOCKET NO. 50-331
 FACILITY Duane Arnold Energy Center
 PROJECT MANAGER Gerry Owsley
 LICENSING ASSISTANT Madelyn J. Maigret

DATE

Notice of Consideration of Issuance of License:
 Published in FEDERAL REGISTER
 Action Date

September 29, 1972~~October 30, 1972~~OR

Initial Decision

June 20, 1973

Safety Review:

L Safety Evaluation

January 23, 1973

ACRS Letter

March 13, 1973

Environmental Review:

Final Environmental Statement

March 1973

Published in FEDERAL REGISTER

March 1973

Antitrust Review:

OAI Concurrences

February 22, 1974

Notifications Required by Act & Commission Rules*:

State Official

May 26, 1972

Local Official

May 26, 1972

Water Quality Certification: (401)

Submittal by Applicant

April 27, 1973

Transmitted to EPA

~~April 27, 1973~~

License Fee:

Amount: \$544,705 PaidFebruary 21, 1974

Indemnity Agreement:

OAI Concurrence

~~February 22, 1974~~

Status of Outstanding Construction Items Checked w/RO

February 20, 1974

Regulatory Operations Final Report: (If Available)

February 20, 1974

Technical Specifications:

RP Concurrence

February 20, 1974

EP Concurrence

February 5, 1974

OR Concurrence

February 22, 1974

Public Announcement (to be released):

() Copy Attached

Issuance Package: OGC Concurrence

1. License

February 22, 1974

2. FEDERAL REGISTER Notice

February 22, 1974

3. Letter to Applicant

February 22, 1974

4. Information Report

February 22, 1974February 28, 1974

* Date Initial Application Forwarded

Revised: MAY 7 1973

AEC ISSUES OPERATING LICENSE FOR NUCLEAR POWER PLANT IN IOWA

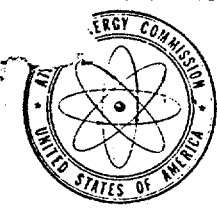
A full power, full-term operating license for the Duane Arnold Energy Center near Cedar Rapids, Iowa, was issued on _____, 1974, to the Iowa Electric Light and Power Company, Cornbelt Power Cooperative and Central Power Cooperative by the Atomic Energy Commission's ~~Regulatory Staff~~ *Directorate of Licensing*.

At full power the plant, which uses a boiling water reactor, will have a net electrical output of about 569 megawatts.

The term of the license is 40 years from June 1970 when the AEC construction permit for the plant was issued. The station is located near the City of Palo in Linn County, adjacent to the Cedar River, about 8 miles northwest of Cedar Rapids.

The license was issued after findings by the AEC that the application for the operating license complied with AEC requirements and that the plant has been satisfactorily constructed and is ready for fuel loading.

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UNITED STATES
ATOMIC ENERGY COMMISSION

WASHINGTON, D.C. 20545

FEB 20 1974

A. Giambusso, Deputy Director
For Reactor Projects
Directorate of Licensing

Docket No. 50-331

IOWA ELECTRIC LIGHT AND POWER COMPANY (DUANE ARNOLD)

We have been informed by our Region III Office that the Duane Arnold facility has been substantially completed in accordance with the amended application with the exceptions listed in the enclosure. As indicated in our memorandum to Mr. R. S. Boyd on January 4, 1974, we have found that the licensee has implemented an acceptable Q/A program for operations.

The licensee plans to complete the listed exceptions within the time frame stated in the enclosure. Assuming satisfactory resolution of the items in the enclosure and verification of their completion by Regulatory Operations, we recommend that an Operating License be issued to the applicant. We also recommend that the letter transmitting the Operating License to the applicant state that fuel loading and initial criticality shall not be commenced until verification of completion of the items in the enclosure by Regulatory Operations.

Harold D. Chamberlain
John G. Davis, Deputy Director
for Field Operations
Directorate of Regulatory Operations

Enclosure:
As Stated

Enclosure

The following updated findings are the result of recent regulatory inspections at the Duane Arnold Energy Center. These inspections were performed by the identified regulatory groups on the following dates:

<u>Group</u>	<u>Dates</u>
Testing and Startup	Feb. 7-8, 15-16-19-18-19, 1974
Construction	Feb. 17-18-19, 1974
Security	Jan. 29-30, 1974
Preparedness Plan	Jan. 29-30-31, Feb. 1, 18-19, 1974
Health Physics	Jan. 30, Feb. 1, 15-16, 18-19, 1974
Special Nuclear Materials	Jan. 24, 1974

Items requiring resolution:

- a. All construction and preoperational testing required for initial fuel loading and sub-critical testing has been completed. Final evaluation of the preoperational test data remains to be completed, however, and is scheduled for completion on February 22, 1974. Completion of this data is required prior to initial fuel loading and sub-critical testing.
- b. The identified Cold Functional Testing Program remains to be completed. The remainder is in progress and is scheduled for completion on February 22, 1974. Completion of this item is required prior to initial fuel loading and sub-critical testing.
- c. The functional verification of the identified Surveillance Test Procedures remains to be completed and is scheduled for completion on February 22, 1974. Resolution of this item is required prior to initial fuel loading and sub-critical testing.
- d. Review and resolution of nonconformance Reports (NCR), Deficiency Reports (DR) and Field Change Notices (FCN) on safety related systems required for initial fuel loading and sub-critical testing are in progress. Regulatory inspections verify that these items are identified and the licensee is committed to proper evaluation and resolution prior to the start of the initial fuel loading program.