DCD-016

JUN 15 [illegible]

Docket No. 50-331

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

Dear Mr. Arnold:

The Commission has issued the enclosed Amendment No. 76 to Facility Operating License No. DPR-49 for the Duane Arnold Energy Center. This amendment consists of changes to the Technical Specifications in response to your application dated August 16, 1977.

These changes to the Technical Specifications incorporate certain requirements of Regulatory Guide 1.52 concerning control room ventilation and standby gas treatment system high-efficiency particulate air (HEPA) replacement filters and filter adsorbent material and delete extraneous references to these requirements.

We have reviewed your submittal and find that the proposed Technical Specification changes delete references to documents extraneous to the Technical Specifications and incorporate the actual requirements of these references into the Technical Specifications. These changes do not alter the present requirements of the Technical Specifications or change the present material or performance requirements of the HEPA filters or adsorbent material. Consequently, we find these changes acceptable.

We have evaluated the potential for environmental impact of plant operation in accordance with the enclosed amendment and have determined that the amendment does not authorize a change in effluent types or total amounts nor an increase in power level, and will not result in any significant environmental impact. Having made this determination, we have further concluded that the amendment involves an action which is insignificant from the standpoint of environmental impact and pursuant to 10 CFR 51.5(d)(4) that an environmental impact statement or negative declaration and environmental impact appraisal need not be prepared in connection with the issuance of this amendment.

The amendment does not involve significant new safety information of a type not considered by a previous Commission safety review of the facility. It does not involve a significant increase in the probability or consequences

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of an accident, does not involve a significant decrease in a safety margin, and therefore does not involve a significant hazards consideration. We have also concluded that there is reasonable assurance that the health and safety of the public will not be endangered by this action.

A copy of the related Notice of Issuance is also enclosed.

Sincerely,

Original signed by

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

Enclosures:
1. Amendment No. 76 to DPR-49
2. Notice

cc w/encls:
See next page

Distribution:
Docket File
NRC PDR
Local PDR
ORB #2 Rdg
D. Eisenhut
SNorris
KEccleston
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LSchneider
DBrinkman
ACRS (10)
OPA
RFox
RDiggs
NSIC
ASLAB

no legal objection - I suggest HEPA in fed. reg. notice should be spelled out

OFFICE	DL:ORB#2	DL:ORB#2	DL:ORB#2	AD:OR	OELD		
SURNAME	SNorris	KEccleston:ms	DBVassallo	TNovak	W.D. PATON		
DATE	6/3/82	6/3/82	6/4/82	6/X/82	6/7/82		

NRC FORM 318 (10-80) NRCM 0240 OFFICIAL RECORD COPY USGPO: 1981—335-960

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
NUCLEAR REGULATORY COMMISSION
WASHINGTON, D. C. 20555

IOWA ELECTRIC LIGHT AND POWER COMPANY
CENTRAL IOWA POWER COOPERATIVE
CORN BELT POWER COOPERATIVE

DOCKET NO. 50-331

AMENDMENT TO FACILITY OPERATING LICENSE

Amendment No. 76
License No. DPR-49

1. The Nuclear Regulatory Commission (the Commission) has found that:

   A. The application for amendment by Iowa Electric Light & Power Company, et al, dated August 16, 1977 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;

   B. The facility will operate in conformity with the application, the provisions of the Act, and the rules and regulations of the Commission;

   C. There is reasonable assurance (i) that the activities authorized by this amendment can be conducted without endangering the health and safety of the public, and (ii) that such activities will be conducted in compliance with the Commission's regulations;

   D. The issuance of this amendment will not be inimical to the common defense and security or to the health and safety of the public; and

   E. The issuance of this amendment is in accordance with 10 CFR Part 51 of the Commission's regulations and all applicable requirements have been satisfied.

2. Accordingly, the license is amended by changes to the Technical Specifications as indicated in the attachment to this license amendment and paragraph 2.C.(2) of Facility Operating License No. DPR-49 is hereby amended to read as follows:

   (2) Technical Specifications

   The Technical Specifications contained in Appendices A and B, as revised through Amendment No.76 , are hereby incorporated in the license. The licensee shall operate the facility in accordance with the Technical Specifications.

3. This license amendment is effective as of the date of its issuance.

FOR THE NUCLEAR REGULATORY COMMISSION

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

Attachment:
Changes to the Technical
Specifications

Date of Issuance: June 15, 1982

ATTACHMENT TO LICENSE AMENDMENT NO. 76

FACILITY OPERATING LICENSE NO. DPR-49

DOCKET NO. 50-331

Replace the following pages of the Appendix "A" Technical Specifications with the enclosed pages. The revised pages are identified by Amendment number and contain vertical lines indicating the area of change.

Remove	Insert
vi	vi
3.7-45	3.7-45
--	3.7-45a
--	3.7-50
3.10-5	3.10-5
3.10-6	3.10-6
--	3.10-7

to Table 4.7-1. Tests of the HEPA filters with DOP aerosol shall be performed in accordance to ANSI N101.1-1972. Any HEPA filters found defective shall be replaced. The replacement HEPA filters should be steel cased and designed to military specifications MIL-F-51068C and MIL-F-51079A. The HEPA filters should satisfy the requirements of UL-586. The HEPA filter separators should be capable of withstanding iodine removal sprays. HEPA filters should be tested individually by the appropriate Filter Test Facility listed in the current USNRC Health and Safety Bulletin for Filter Unit Inspection and Testing Service. The Filter Test Facility should test each filter at 100% and 20% of rated flow, with the filter encapsulated to disclose frame and gasket leaks.

All elements of the heater are demonstrated to be functional and operable during the test of heater capacity. Demonstration of 11 KW capability assures relative humidity below 70%.

System drains are present in the filter/adsorber banks, loop-seal water level is checked to ensure no bypass leakage from the banks.

If significant painting, fire or chemical release occurs such that the HEPA filter or charcoal adsorber could become contaminated from the fumes, chemicals or foreign material, the same tests and sample analysis shall be performed as required for operational use. The determination of significant shall be made by the operator on duty at the time of the incident. Knowledgeable staff members should be consulted prior to making this determination.

Demonstration of the automatic initiation capability and operability of filter cooling is necessary to assure system performance capa-

Amendment No. 76

TABLE 4.7-1

SUMMARY TABLE OF NEW ACTIVATED CARBON PHYSICAL PROPERTIES

	TEST	ACCEPTABLE TEST METHOD	ACCEPTABLE RESULTS		TEST SCHEDULE ON BASE MATERIAL	TEST SCHEDULE ON FINISHED ADSORBENT
1.	Particle Size Distribution	ASTM D 2862	Retained on #6 ASTM E11 Sieve: Retained on #8 ASTM E11 Sieve: Through #8, retained on #12 Sieve: Through #12, retained on #16 Sieve: Through #16 ASTM E11 Sieve: Through #16 ASTM E323 Sieve:	0.0% 5.0% maximum 40% to 60% 40% to 60% 5.0% maximum 1.0% to maximum	-	Batch[c]
2.	Hardness Number	MIL-C17605B para. 4.6.4			Batch	
3.	Ignition Temperature	RDT M16-1T, Appendic C	340°C minimum at 100 fpm		-	Batch
4.	Surface Area	BET Surface Area	1000 m^2/gr minimum		Batch	
5.	Radioiodine Removal Efficiency					
	a. Elemental Iodine, DBA Temperature and Pressure	RDT M16-1T, para. 4.5.2 except DBA Temperature and pressure are used[a]	99.9%		-	Qualification[b]
	b. Methyl Iodide, DBA Temperature and Pressure	RDT M16-1T, para. 4.5.4 except DBA Temperature and pressure are used[a]	95% for 95% relative humidity 99.5% for 70% relative humidity		-	Batch
	c. Retention	RDT M16-1T, para. 4.5.5	99%		-	Qualification
6.	Moisture Content Efficiency	ASTM D2867, Xylene Method	3% maximum			Batch
7.	Ash Content	ASTM D2866	6% maximum		Qualification	-
8.	Bulk Density	ASTM D2854	Report value		-	Batch
9.	Impregnant Content	State Procedure	State type (not to exceed 5% by weight)		-	Batch
10.	Impregnant Leachout	State Procedure	Report value		-	Qualificat

[a] DBA Maximum Temperature (rounded to the next highest decade in °F, i.e., 252°F is 260°F) and Maximum Pressure (rounded to the next highest decade in psig. i.e., 51 psig is 60 psig).

[b] Qualification test: Test which establishes the suitability of a product for a general application normally a one-time test reflecting historical typical performance of material.

[c] Batch test: Test made on a production batch of product to establish suitability for a specific application.

4.10.A BASES

MAIN CONTROL ROOM VENTILATION

Pressure drop across the combined HEPA filters and charcoal adsorbers of less than 6 inches of water at the system design flow rate will indicate that the filters and adsorbers are not clogged by excessive amounts of foreign matter. Pressure drop should be determined at least once per operating cycle to show system performance capability.

The frequency of tests and sample analysis are necessary to show that the HEPA filters and charcoal adsorbers can perform as evaluated. Tests of the charcoal adsorbers with halogenated hydrocarbon shall be performed in accordance with USAEC Report DP-1082. Iodine removal efficiency tests shall follow RDT Standard M-16-1T. Test cartridges are provided to allow removal of a representative charcoal sample without affecting the operation of the bed. If test results are unacceptable, all adsorbent in the system shall be replaced with an adsorbent qualified according to Table 4.10-1. The replacement tray for the adsorber tray removed for the test should meet the same adsorbent quality. Tests of the HEPA filters with DOP aerosol shall be performed in accordance to ANSI N101.1-1972. Any HEPA filters found defective shall be replaced. The replacement HEPA filters should be steel cased and designed to military specifications MIL-F-51068C and MIL-F-51079A. The HEPA filters should satisfy the requirements of UL-586. The HEPA filter separators should be capable of withstanding iodine removal sprays. HEPA filters should be tested individually by the appropriate Filter Test Facility listed in the

current USNRC Health and Safety Bulletin for Filter Unit Inspection and Testing Service. The Filter Test Facility should test each filter at 100% and 20% of rated flow, with the filter encapsulated to disclose frame and gasket leaks.

Operation of the system for 10 hours every month will demonstrate operability of the filters and adsorber system and remove excessive moisture built up on the adsorber.

If significant painting, fire or chemical release occurs such that the HEPA filter or charcoal adsorber could become contaminated from the fumes, chemicals or foreign materials, the same tests and sample analysis shall be performed as required for operational use. The determination of significant shall be made by the operator on duty at the time of the incident. Knowledgeable staff members should be consulted prior to making this determination.

Demonstration of the automatic initiation capability is necessary to assure system performance capability.

B. EMERGENCY SHUTDOWN LOCAL CONTROL PANEL

Once per week verification of the panel being properly secured is considered adequate. The associated equipment is proven operable during surveillance testing of that equipment. An operability verification by functional test at each refueling outage is adequate to assure that the panel is available and can perform its design function.

Amendment No. 76

TABLE 4.10-1

SUMMARY TABLE OF NEW ACTIVATED CARBON PHYSICAL PROPERTIES

	TEST	ACCEPTABLE TEST METHOD	ACCEPTABLE RESULTS		TEST SCHEDULE ON BASE MATERIAL	TEST SCHEDULE ON FINISHED ADSORBENT
1.	Particle Size Distribution	ASTM D 2862	Retained on #6 ASTM E11 Sieve: Retained on #8 ASTM E11 Sieve: Through #8, retained on #12 Sieve: Through #12, retained on #16 Sieve: Through #16 ASTM E11 Sieve: Through #16 ASTM E323 Sieve:	0.0% 5.0% maximum 40% to 60% 40% to 60% 5.0% maximum 1.0% to maximum	-	Batch[c]
2.	Hardness Number	MIL-C17605B para. 4.6.4			Batch	
3.	Ignition Temperature	RDT M16-1T. Appendic C	340°C minimum at 100 fpm		-	Batch
4.	Surface Area	BET Surface Area	1000 m^2/gr minimum		Batch	
5.	Radioiodine Removal Efficiency					
	a. Elemental Iodine, DBA Temperature and Pressure	RDT M16-1T, para. 4.5.2 except DBA Temperature and pressure are used[a]	99.9%		-	Qualification[b]
	b. Methyl Iodide, DBA Temperature and Pressure	RDT M16-1T, para. 4.5.4 except DBA Temperature and pressure are used[a]	95% for 95% relative humidity 99.5% for 70% relative humidity		-	Batch
	c. Retention	RDT M16-1T, para. 4.5.5	99%		-	Qualification
6.	Moisture Content Efficiency	ASTM D2867, Xylene Method	3% maximum			Batch
7.	Ash Content	ASTM D2866	6% maximum		Qualification	-
8.	Bulk Density	ASTM D2854	Report value		-	Batch
9.	Impregnant Content	State Procedure	State type (not to exceed 5% by weight)		-	Batch
10.	Impregnant Leachout	State Procedure	Report value		-	Qualificat

[a] DBA Maximum Temperature (rounded to the next highest decade in °F, i.e., 252°F is 260°F) and Maximum Pressure (rounded to the next highest decade in psig. i.e., 51 psig is 60 psig).

[b] Qualification test: Test which establishes the suitability of a product for a general application normally a one-time test reflecting historical typical performance of material.

[c] Batch test: Test made on a production batch of product to establish suitability for a specific application.

UNITED STATES NUCLEAR REGULATORY COMMISSION

DOCKET NO. 50-331

IOWA ELECTRIC LIGHT AND POWER COMPANY, ET AL

NOTICE OF ISSUANCE OF AMENDMENT TO FACILITY OPERATING LICENSE

The U. S. Nuclear Regulatory Commission (the Commission) has issued Amendment No. 76 to Facility Operating License No. DPR-49 issued to Iowa Electric Light and Power Company, Central Iowa Power Cooperative, and Corn Belt Power Cooperative, which revises the Technical Specifications for operation of the Duane Arnold Energy Center (DAEC), located in Linn County, Iowa. The amendment is effective as of its date of issuance.

The amendment modifies the Technical Specifications to incorporate certain requirements of Regulatory Guide 1.52 concerning control room ventilation and standby gas treatment system high-efficiency particulate air (HEPA) replacement filters and filter adsorbent material and delete extraneous references to these requirements.

The application for the amendment complies with the standards and requirements of the Atomic Energy Act of 1954, as amended (the Act), and the Commission's rules and regulations. The Commission has made appropriate findings as required by the Act and the Commission's rules and regulations in 10 CFR Chapter I, which are set forth in the license amendment. Prior public notice of this amendment was not required since the amendment does not involve a significant hazards consideration.

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

For further details with respect to this action, see (1) the application for amendment dated August 16, 1977, (2) Amendment No. 76 to License No. DPR-49, and (3) the Commission's letter to Iowa Electric Light and Power Company dated June 15, 1982 . All of these items are available for public inspection at the Commission's Public Document Room, 1717 H Street, NW., Washington, D. C. and at the Cedar Rapids Public Library, 426 Third Avenue, SE., Cedar Rapids, Iowa 52401. A copy of items (2) and (3) may be obtained upon request addressed to the U. S. Nuclear Regulatory Commission, Washington, D. C. 20555, Attention: Director, Division of Licensing.

Dated at Bethesda, Maryland, this 15th day of June 1982.

FOR THE NUCLEAR REGULATORY COMMISSION

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