

# REGULATORY DOCKET FILE COPY

Docket Nos. 50-254 ✓  
and 50-265

AUGUST 6 1980

Mr. D. Louis Peoples  
Director of Nuclear Licensing  
Commonwealth Edison Company  
P. O. Box 767  
Chicago, Illinois 60690

Dear Mr. Peoples:

- Distribution
- ✓ Docket
  - ORB #2
  - NRR Reading
  - Local PDR
  - NRC PDR
  - HDenton
  - DEisenhut
  - TNovak
  - RTedesco
  - GLainas
  - Tippolito
  - SNorris
  - RBevan
  - OELD
  - OI&E (5)
  - BJones (8)

- BScharf (10)
- ACRS (16)
- RDiggs
- JWetmore
- NSIC
- TERA
- CMiles

The Commission has issued the enclosed Amendment Nos. ~~57~~ and ~~52~~ to Facility Operating License Nos. DPR-29 and DPR-30 for the Quad Cities Nuclear Power Station, Units Nos. 1 and 2. The amendments consist of changes to the Technical Specifications in response to your request dated February 2, 1978.

The amendments authorize changes to the Environmental Technical Specifications, Appendix B to the Quad Cities Nuclear Power Station operating licenses, so that the 2°F per hour temperature change limit does not apply during changes in the mode of condenser cooling. In addition, administrative changes have been made to the stations' environmental monitoring reporting requirements to bring this section into conformance with current practices and organizational structure.

The amendments do not involve significant new safety information of a type not considered by a previous Commission safety review of the facility, and do not involve a significant increase in the probability or consequences of an accident, do not involve a significant decrease in a safety margin, and therefore do 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.

Copies of the Environmental Impact Appraisal and Notice of Issuance and Negative Declaration are also enclosed.

Sincerely,

**Original signed by**

8008140246

Thomas A. Ippolito, Chief  
Operating Reactors Branch #2  
Division of Licensing

Enclosures and ccs:  
See next page

\*SEE PREVIOUS YELLOW FOR CONCURRENCES

OFFICE ▶	ORB #2	ORB #2	AD:OR	OELD	ORB #2
SURNAME ▶	*SNorris	*RBevan:mjf	*TNovak	*Goddard	*Tippolito
DATE ▶	6/27/80	6/27/80	6/30/80	7/2/80	8/ /80

Mr. D. Louis Peoples

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Enclosures:

1. Amendment No. 57 to DPR-29
2. Amendment No. 52 to DPR-30
3. Environmental Impact Appraisal
4. Notice/Negative Declaration

cc w/enclosures:

See next page

OFFICE ▶						
SURNAME ▶						
DATE ▶						

Mr. D. Louis Peoples

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AUGUST 6 1980

Copies of the Environmental Impact Appraisal and Notice of Issuance and Negative Declaration are also enclosed.

Sincerely,

Thomas A. Ippolito, Chief  
Operating Reactors Branch #2  
Division of Licensing

Enclosures:

- 1. Amendment No. ~~5~~ to DPR-29
- 2. Amendment No. ~~2~~ to DPR-30
- 3. Environmental Impact Appraisal
- 4. Notice/Negative Declaration

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OFFICE	ORB #2	<del>ORB #2</del>	AD:OR	OELD	ORB #2
SURNAME	SNorris	RBevan:mjf	TNovak		TIPPOLITO
DATE	6/27/80	6/27/80	6/30/80	1/80	6/27/80

Docket Nos. 50-254  
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Mr. D. Louis Peoples  
Director of Nuclear Licensing  
Commonwealth Edison Company  
P. O. Box 767  
Chicago, Illinois 60690

Distribution

Docket	ACRS (16)
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RTedesco	
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OELD	
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BJones (8)	
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Dear Mr. Peoples:

The Commission has issued the enclosed Amendment Nos. and to Facility Operating License Nos. DPR-29 and DPR-30 for the Quad Cities Nuclear Power Station, Units Nos. 1 and 2. The amendments consist of changes to the Technical Specifications in response to your request dated February 2, 1978.

The amendments authorize changes to the Environmental Technical Specifications, Appendix B to the Quad Cities Nuclear Power Station operating licenses, so that the 2°F per hour temperature change limit does not apply during changes in the mode of condenser cooling. In addition, administrative changes have been made to the stations' environmental monitoring reporting requirements to bring this section into conformance with current practices and organizational structure.

The amendments do not involve significant new safety information of a type not considered by a previous Commission safety review of the facility, and do not involve a significant increase in the probability or consequences of an accident, do not involve a significant decrease in a safety margin, and therefore do 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.

Copies of the Environmental Impact Appraisal and Notice of Issuance and Negative Declaration are also enclosed.

Sincerely,

Thomas A. Ippolito, Chief  
Operating Reactors Branch #2  
Division of Licensing

\*SEE RPREVIOUS YELLOW FOR CONCURRENCES

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Enclosures and ccs: OFF See next page	ORB #2	ORB #2	AD:OR	OELD	ORB #2
SURNAME	*SNorris	*RBevan:mjf	TNovak	<i>[Signature]</i>	*TIppolito
DATE	6/27/80	6/27/80	6/30/80	7/2/80	/ /80

Mr. D. Louis Peoples  
Commonwealth Edison Company

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August 6, 1980

cc:

Mr. D. R. Stichnoth  
President  
Iowa-Illinois Gas and  
Electric Company  
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Counselors at Law  
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Chicago, Illinois 60603

Mr. Nick Kalivianakas  
Plant Superintendent  
Quad Cities Nuclear Power Station  
22710 - 206th Avenue - North  
Cordova, Illinois 61242

Mr. N. Chrissotimos, Inspector  
U. S. Nuclear Regulatory Commission  
Box 756  
Bettendorf, Iowa 52722

Moline Public Library  
504 - 17th Street  
Moline, Illinois 61265

Illinois Department of Public Health  
ATTN: Chief, Division of Nuclear  
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535 West Jefferson  
Springfield, Illinois 62761

Mr. Marcel DeJaegher, Chairman  
Rock Island County Board  
of Supervisors  
Rock Island County Court House  
Rock Island, Illinois 61201

Director, Technical Assessment Division  
Office of Radiation Programs (AW 459)  
US EPA  
Crystal Mall #2  
Arlington, Virginia 20460

U. S. Environmental Protection  
Agency  
Federal Activities Branch  
Region V Office  
ATTN: EIS COORDINATOR  
230 South Dearborn Street  
Chicago, Illinois 60604

Susan N. Sekuler  
Assistant Attorney General  
Environmental Control Division  
188 W. Randolph Street  
Suite 2315  
Chicago, Illinois 60601



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

COMMONWEALTH EDISON COMPANY  
AND  
IOWA ILLINOIS GAS AND ELECTRIC COMPANY

DOCKET NO. 50-254

QUAD CITIES NUCLEAR POWER STATION, UNIT NO. 1

AMENDMENT TO FACILITY OPERATING LICENSE

Amendment No. 57  
License No. DPR-29

1. The Nuclear Regulatory Commission (the Commission) has found that:
  - A. The application for amendment by Commonwealth Edison Company (the licensee) dated February 2, 1978, 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 3.B of Facility Operating License No. DPR-29 is hereby amended to read as follows:

B. Technical Specifications

The Technical Specifications contained in Appendices A and B, as revised through Amendment No. 57, are hereby incorporated in the license. The licensee shall operate the facility in accordance with the Technical Specifications.

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

FOR THE NUCLEAR REGULATORY COMMISSION

*Thomas A. Ippolito*  
Thomas A. Ippolito, Chief  
Operating Reactors Branch #2  
Division of Licensing

Attachment:  
Changes to the Technical  
Specifications

Date of Issuance: August 6, 1980

ATTACHMENT TO LICENSE AMENDMENT NO. 57

FACILITY OPERATING LICENSE NO. DPR-29

DOCKET NO. 50-254

Revise Appendix B Technical Specifications by removing pages E1.2/2.2-1 and E3.1-1 and replacing with the enclosed pages.

## E1.2/2.2 TEMPERATURE LIMITATIONS

### LIMITING CONDITIONS FOR OPERATION

Heated effluent from the plant shall meet the following restrictions beyond a mixing zone 600 feet downstream of the diffuser pipes:

- A. The normal daily and seasonal temperature fluctuations that existed before the addition of heated effluent shall be maintained.
- B. The maximum temperature rise at any time (or place) above natural ambient temperatures shall not exceed 5° F.
- C. The rate of change of temperature due to heated effluent from the diffuser pipes shall not exceed 2° F per hour (during controlled changes in operation of the plant). **This requirement need not be met during changes in the mode of condenser cooling.**

### SURVEILLANCE REQUIREMENTS

#### SPECIFICATIONS

Ambient river water temperature and discharge temperatures will be monitored. Temperature sensors will be used to define the temperature regime above and below the plant. Measurements from the sensors are telemetered into the station control room and are recorded on a strip chart recorder.

Four temperature sensors are located approximately 600 feet downstream of the diffuser pipes, one temperature sensor is located in the discharge bay, and two temperature sensors are located in the intake area to record ambient river temperature.

Temperature information collected from this system is recorded.

Figure 2.2-1 shows the locations of temperature sensors.

### E3.0 REPORTING REQUIREMENTS

#### 3.1 Chlorine Effluent Reports

- A. A letter shall be sent to the Director of the Office of Nuclear Reactor Regulation within 30 days after a limiting condition for operation is exceeded describing the occurrence and justifying corrective action.
- B. A report shall be prepared annually describing the results of the chlorine analyzing and monitoring program. This report shall be sent to the Director of the Office of Nuclear Reactor Regulation within 90 days after the end of a report period.

#### 3.2 Temperature Limitations

Upstream and downstream temperatures recorded in accordance with Section 2.2 will be reported in the annual operating report.

#### 3.3 Fish Impingement

Annual reports will be compiled on the results obtained from impingement counts. Results of the effectiveness of the diversion system will be reported.

#### 3.4 Chemical Effluent

Chemical usage will be documented in the annual operating report each calendar year.



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

COMMONWEALTH EDISON COMPANY  
AND  
IOWA ILLINOIS GAS AND ELECTRIC COMPANY

DOCKET NO. 50-265

QUAD CITIES NUCLEAR POWER STATION, UNIT NO. 2

AMENDMENT TO FACILITY OPERATING LICENSE

Amendment No. 52  
License No. DPR-30

1. The Nuclear Regulatory Commission (the Commission) has found that:
  - A. The application for amendment by Commonwealth Edison Company (the licensee) dated February 2, 1978, 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 3.B of Facility License No. DPR-30 is hereby amended to read as follows:

B. Technical Specifications

The Technical Specifications contained in Appendices A and B, as revised through Amendment No. 52, 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

  
Thomas A. Ippolito, Chief  
Operating Reactors Branch #2  
Division of Licensing

Attachment:  
Changes to the Technical  
Specifications

Date of Issuance: August 6, 1980

ATTACHMENT TO LICENSE AMENDMENT NO. 52

FACILITY OPERATING LICENSE NO. DPR-30

DOCKET NO. 50-265

Revise Appendix B Technical Specifications by removing pages E1.2/2.2-1 and E3.1-1 and replacing with the enclosed pages.

## E1.2/2.2 TEMPERATURE LIMITATIONS

### LIMITING CONDITIONS FOR OPERATION

### SURVEILLANCE REQUIREMENTS

### SPECIFICATIONS

Heated effluent from the plant shall meet the following restrictions beyond a mixing zone 600 feet downstream of the diffuser pipes:

- A. The normal daily and seasonal temperature fluctuations that existed before the addition of heated effluent shall be maintained.
- B. The maximum temperature rise at any time (or place) above natural ambient temperatures shall not exceed 5° F.
- C. The rate of change of temperature due to heated effluent from the diffuser pipes shall not exceed 2° F per hour (during controlled changes in operation of the plant). **This requirement need not be met during changes in the mode of condenser cooling.**

Ambient river water temperature and discharge temperatures will be monitored. Temperature sensors will be used to define the temperature regime above and below the plant. Measurements from the sensors are telemetered into the station control room and are recorded on a strip chart recorder.

Four temperature sensors are located approximately 600 feet downstream of the diffuser pipes, one temperature sensor is located in the discharge bay, and two temperature sensors are located in the intake area to record ambient river temperature.

Temperature information collected from this system is recorded.

Figure 2.2-1 shows the locations of temperature sensors.

### E3.0 REPORTING REQUIREMENTS

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#### 3.4 Chemical Effluent

Chemical usage will be documented in the annual operating report each calendar year.



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

ENVIRONMENTAL IMPACT APPRAISAL BY THE OFFICE OF NUCLEAR REACTOR REGULATION  
SUPPORTING AMENDMENT NO. 57 AND 52 TO FACILITY OPERATING LICENSES NOS. DPR-24 AND DPR-30

COMMONWEALTH EDISON COMPANY  
AND  
IOWA-ILLINOIS GAS AND ELECTRIC COMPANY

QUAD CITIES NUCLEAR POWER STATION, UNIT NOS. 1 AND 2

DOCKET NOS. 50-254 AND 50-265

Description of Proposed Action

By letter dated February 2, 1978, Commonwealth Edison (licensee) requested changes to Appendix B, Environmental Technical Specifications, to the Quad Cities Nuclear Power Station, Unit Nos. 1 and 2, licenses. The proposed change to Specification E1.2.C would eliminate the 2°F per hour temperature change requirement during changes in the mode of condenser cooling.

Specification E1.2.C and the present temperature monitoring system were required prior to the construction of the closed cycle cooling system. Monitoring for Specification E1.2.C is conducted with four sensors located 600 ft. downstream from the diffuser pipes used during once through cooling.

With construction of the closed spray-cooling system, a blowdown diffuser pipe was installed at a location within 100 feet of two of the downstream temperature sensors. According to the licensee, the proximity of the new diffuser to these sensors results in occasional violation of the 2°F limit when the station changes from once-through cooling to the spray canal or vice versa. The licensee's proposed change would relax this limitation during the change over period from one mode of cooling to the other. During all remaining periods of operation, the limitation shall apply.

Environmental Impacts of Proposed Action

Our review of reports indicates that changes in mode of cooling occur about 34 times per year and require a period of 2-3 hours for each changeover. This changing of the mode of condenser cooling was not considered in developing the present specification. In addition, the placement of the new blowdown diffuser near the sensors was not anticipated.

The 2°F limit 600 feet from the main diffuser was chosen to prevent "cold shock" to organisms residing in the thermal plume during once-through cooling. Use of the closed system diminishes the possibility of such cold

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shocks. Thus, the environmental impact resulting from this Technical Specification change will be negligible since the licensee's annual reports have not noted any problems from cold shock even during full once-through operation.

Conclusion and Basis for Negative Declaration

On the basis of the foregoing analysis, we conclude that there will be no environmental impact attributable to the proposed action other than has already been predicted and described in the Commission's FES for Quad Cities Station, Units 1 and 2.

On the basis and in accordance with 10 CFR Part 51.5(c), the Commission concludes that no environmental impact statement for the proposed action need be prepared and a negative declaration to this effect is appropriate.

Dated: August 6, 1980

UNITED STATES NUCLEAR REGULATORY COMMISSIONDOCKETS NOS. 50-254 AND 50-265COMMONWEALTH EDISON COMPANY  
AND  
IOWA-ILLINOIS GAS AND ELECTRIC COMPANYNOTICE OF ISSUANCE OF AMENDMENTS TO FACILITYOPERATING LICENSES  
AND NEGATIVE DECLARATION

The U. S. Nuclear Regulatory Commission (the Commission) has issued Amendment Nos. 57 and 52 to Facility Operating License Nos. DPR-29 and DPR-30, issued to Commonwealth Edison Company (acting for itself and on behalf of the Iowa-Illinois Gas and Electric Company), which revised Technical Specifications for operation of the Quad Cities Nuclear Power Station Unit Nos. 1 and 2 (the facility) located in Rock Island County, Illinois. The amendments are effective as of the date of issuance.

The amendments revise the Technical Specifications, Appendix B, so that the 2°F per hour temperature change limit does not apply during changes in the mode of condenser cooling. In addition, administrative changes have been made to the facility's environmental monitoring reporting requirements to bring this in conformance with current practice.

The application for the amendments 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 amendments. Prior public notice of the amendments was not required since the amendments do not involve a significant hazards consideration.

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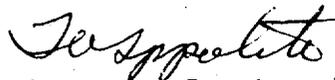
- 2 -

The Commission has prepared an environmental impact appraisal for this action and has concluded that an environmental impact statement for this particular action is not warranted because there will be no significant environmental impact attributable to the action other than that which has already been predicted and described in the Commission's Final Environmental Statement for the facility.

For further details with respect to this action, see (1) the application for amendment dated February 2, 1978, (2) Amendment No. 57 to License No. DPR-29, Amendment No. 52 to DPR-30, and (3) the Commission's Environmental Impact Appraisal. All of 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 Moline Public Library, 504-17th Street, Moline, Illinois 61265. 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 6th day of August 1980.

FOR THE NUCLEAR REGULATORY COMMISSION



Operating Reactors Branch #2  
Division of Licensing