Docket No. STN 50-454

FEB 14 1985

Mr. Dennis L. Farrar
Director of Nuclear Licensing
Commonwealth Edison Company
P. O. Box 767
Chicago, Illinois 60690

Dear Mr. Farrar:

Subject: Issuance of Facility Operating License NPF-37 - Byron Station, Unit 1

The U.S. Nuclear Regulatory Commission (NRC) has issued the enclosed Facility Operating License NPF-37, together with Technical Specifications and Environmental Protection Plan for the Byron Station, Unit 1. Based upon the findings of the Commission as reflected in the enclosed license and the favorable vote by the Commission on full-power operation, License No. NPF-37 authorizes operation of the Byron Station, Unit 1 at reactor core power levels not in excess of 3411 megawatts thermal (100% power), and supersedes License No. NPF-23, issued on October 31, 1984.

Enclosed is a copy of a related notice, the original of which has been forwarded to the Office of the Federal Register for publication.

Two signed copies of Amendment No. 2 to Indemnity Agreement No. B-97 which covers the activities authorized under License No. NPF-37 are also enclosed. Please sign both copies and return one to this office.

An Assessment of the Effect of License Duration on Matters Discussed in the Final Environmental Statement for the Byron Station, Unit 1 is enclosed as Enclosure 4.

Sincerely,

/s/

Frank J. Miraglia, Acting Director
Division of Licensing
Office of Nuclear Reactor Regulation

Enclosures:
1. Facility Operating License NPF-37
2. Federal Register Notice
3. Amendment No. 2 to Indemnity Agreement No. B-97
4. Assessment of the Effect of License Duration on Matters Discussed in the FES

cc w/enclosures:
See next page

*SEE PREVIOUS PAGE FOR CONCURRENCES

AD:DL	D:DL	SAB:DE*
TNovak	FMiraglia	AToalston
02/14/85	02/14/85	02/13/85

LB#1:DL	LB#1:DL	LB#1:DL	SP	OELD
*LOlshan:kab	*MRushbrook	*BJYoungblood	IDinitz	*SLewis
02/11/85	02/11/85	02/12/85	02/ /85	02/12/85

BYRON

FEB 14 1985

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FEB 14 1985

cc: The Honorable Tom Corcoran
United States House of Representatives
Washington, D. C. 20515

Attorney General
500 South 2nd Street
Springfield, Illinois 62701

Illinois Department of Nuclear Safety
Manager, Nuclear Facility Safety
1035 Outer Park Drive
Springfield, Illinois 62704

Director, Illinois Institute of Natural
Resources
309 West Washington
Chicago, Illinois 60606

Director, Criteria and Standards (ANR-460) w/o Tech. Specs.
Office of Radiation Programs
U. S. Environmental Protection Agency
Washington, D. C. 20460

Director, Eastern Environmental Radiation w/o Tech. Specs.
Facility
U. S. Environmental Protection Agency
P. O. Box 3009
Montgomery, Alabama 36193

EIS Review Coordinator w/o Tech. Specs.
Environmental Protection Agency
Region V
230 S. Dearborn Street
Chicago, Illinois 60604

Chairman, Ogle County Board
Box 357
Oregon, Illinois 61061

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

COMMONWEALTH EDISON COMPANY

DOCKET NO. STN 50-454

BYRON STATION, UNIT NO. 1

FACILITY OPERATING LICENSE

License No. NPF-37

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

   A. The application for license filed by Commonwealth Edison Company (licensee), complies with the standards and requirements of the Atomic Energy Act of 1954, as amended (the Act), and the Commission's 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 Byron Station, Unit No. 1 (the facility) has been substantially completed in conformity with Construction Permit No. CPPR-130 and the application, as amended, the provisions of the Act, and the regulations of the Commission;

   C. The facility will operate in conformity with the application, as amended, the provisions of the Act, and the regulations of the Commission (except as exempted from compliance in Section 2.D below);

   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 Commission's regulations set forth in 10 CFR Chapter I (except as exempted from compliance in Section 2.D below);

   E. Commonwealth Edison Company is technically qualified to engage in the activities authorized by this license in accordance with the Commission's regulations set forth in 10 CFR Chapter I;

   F. Commonwealth Edison Company has 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 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 and other costs and considering available alternatives, the issuance of this Facility Operating License No. NPF-37, subject to the conditions for protection of the environment set forth in the Environmental Protection Plan attached as Appendix B, is in accordance with 10 CFR Part 51 of the Commission's regulations and all applicable requirements have been satisfied; and

I. The receipt, possession, and use of source, byproduct and special nuclear material as authorized by this license will be in accordance with the Commission's regulations in 10 CFR Parts 30, 40 and 70.

2. Pursuant to approval by the Nuclear Regulatory Commission at a meeting on February 12, 1985, the License for Fuel Loading and Low Power Testing, License No. NPF-23, issued on October 31, 1984, is superseded by Facility Operating License No. NPF-37 hereby issued to Commonwealth Edison Company (the licensee) to read as follows:

A. The license applies to the Byron Station, Unit No. 1, a pressurized water nuclear reactor and associated equipment (the facility), owned by Commonwealth Edison Company. The facility is located in north central Illinois within Rockvale Township, Ogle County, Illinois and is described in the licensee's "Final Safety Analysis Report", as supplemented and amended, and in the licensee's Environmental Report, as supplemented and amended.

B. Subject to the conditions and requirements incorporated herein, the Commission hereby licenses Commonwealth Edison Company:

(1) Pursuant to Section 103 of the Act and 10 CFR Part 50 to possess, use and operate the facility at the designated location in accordance with the procedures and limitations set forth in this license;

(2) Pursuant to the Act and 10 CFR Part 70, to receive, possess and use at any time special nuclear material as reactor fuel, in accordance with the limitations for storage and amounts required for reactor operation, as described in the Final Safety Analysis Report, as supplemented and amended;

(3) Pursuant to the Act and 10 CFR Parts 30, 40 and 70, to receive, possess, and use at any time any byproduct, source and special nuclear material as sealed neutron sources for reactor startup, sealed sources for reactor instrumentation and radiation monitoring equipment calibration, and as fission detectors in amounts as required;

(4) Pursuant to the Act and 10 CFR Parts 30, 40 and 70, to receive, possess, and use in amounts as required any byproduct, source or special nuclear material without restriction to chemical or physical form, for sample analysis or instrument calibration or associated with radioactive apparatus or components; and

(5) Pursuant to the Act and 10 CFR Parts 30, 40 and 70, to possess, but not separate, such byproduct 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 Commission's regulations set forth in 10 CFR Chapter I and 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

The licensee is authorized to operate the facility at reactor core power levels not in excess of 3411 megawatts thermal (100% power) in accordance with the conditions specified herein and in Attachment 1 to this license. The preoperational tests, startup tests and other items identified in Attachment 1 to this license shall be completed as specified. Attachment 1 is hereby incorporated into this license;

(2) Technical Specifications and Environmental Protection Plan

The Technical Specifications contained in Appendix A and the Environmental Protection Plan contained in Appendix B, both of which are attached hereto, are hereby incorporated into this license. The licensee shall operate the facility in accordance with the Technical Specifications and the Environmental Protection Plan;

(3) Post-Fuel-Loading Initial Test Program (Section 14, SER)

Any changes to the Initial Test Program described in Section 14 of the FSAR made in accordance with the provisions of 10 CFR 50.59 shall be reported in accordance with 50.59(b) within one month of such change.

(4) Seismic and Dynamic Qualification (Section 3.10, SSER #5)*

Prior to startup following the first refueling outage, the licensee shall completely qualify the Westinghouse 7300 Process Protection System (ESE-13), for both Nuclear Steam Supply System and Balance of Plant applications, including any hardware changes, if found necessary.

(5) Equipment Qualification (Section 3.11, SSER #5, SSER #6)

All electrical equipment within the scope of 10 CFR 50.49 must be environmentally qualified by November 30, 1985.

(6) Fire Protection Program (Section 9.5.1, SER, SSER #3, SSER #5, SSER #6)

(a) The licensee shall maintain in effect all provisions of the approved fire protection program as described in the Fire Protection Report for the facility through Amendment 4 and the licensee's letters dated August 20, 1984, October 11, 1984 and October 15, 1984, and as approved in the SER through Supplement 6, subject to provisions b & c below.

(b) The licensee may make no change to the approved fire protection program which would decrease the level of fire protection in the plant without prior approval of the Commission. To make such a change the licensee must submit an application for license amendment pursuant to 10 CFR 50.90.

(c) The licensee may make changes to features of the approved fire protection program which do not decrease the level of fire protection without prior Commission approval provided:

(i) Such changes do not otherwise involve a change in a license condition or Technical Specification or result in an unreviewed safety question (see 10 CFR 50.59), and

(ii) such changes do not result in failure to complete the fire protection program approved by the Commission prior to license issuance.

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*Requires exemption; see Paragraph 2.D

The licensee shall maintain, in an auditable form, a current record of all such changes, including an analysis of the effects of the changes on the fire protection program, and shall make such records available to NRC inspectors upon request. All changes to the approved program made without prior Commission approval shall be reported annually to the Director of the Office of Nuclear Reactor Regulation, together with supporting analyses.

(d) Prior to July 1, 1985, the licensee shall complete installation and testing of the continuous thermistors in the Auxiliary Building ventilation system charcoal filter plenums. Pending completion of this work, the licensee shall conduct an hourly fire watch patrol to inspect the charcoal filters in the Auxiliary Building.

(7) Control Room Human Factors (Section 18.2, SSER #4)

Unless the staff determines that the test results do not support the change, the licensee shall, prior to startup following the first refueling outage, move the range and volume controls for the SOURCE RANGE nuclear instrument on Unit 1 from the nuclear instrumentation cabinet 1PM07J to the main control board 1PM05J.

(8) TMI Item II.F.1, Iodine/Particulate Sampling (Section 11.5, SSER #5)

Prior to startup following the first refueling outage, the licensee shall demonstrate that the operating iodine/particulate sampling system will perform its intended function.

(9) Emergency Response Capability (NUREG-0737, Supplement #1)

The licensee shall complete the emergency response capabilities as required by Attachment 2 to this license, which is incorporated into this license.

(10) Reliability of Diesel-Generators (Section 9.5.4.1, SER, SSER #5)*

Prior to startup following the first refueling outage, the controls and monitoring instrumentation on the local control panels shall be dynamically qualified for their location or shall be

*Requires exemption; see Paragraph 2.D

installed on a free standing floor mounted panel in such a manner (including the use of vibration isolation mounts as necessary) that there is reasonable assurance that any induced vibrations will not result in cyclic fatigue failure for the expected life of the instrument.

(11) Generic Letter 83-28 (Required Actions Based on Generic Implications of Salem ATWS Events)

The licensee shall submit responses to and implement the requirements of Generic Letter 83-28 on a schedule which is consistent with that given in its letters dated November 5, 1983, February 29, 1984, June 1, 1984 and October 10, 1984.

(12) Formal Federal Emergency Management Agency Finding

In the event that the NRC finds that the lack of progress in completion of the procedures in the Federal Emergency Management Agency's final rule, 44 CFR Part 350, is an indication that a major substantive problem exists in achieving or maintaining an adequate state of emergency preparedness, the provisions of 10 CFR Section 50.54 (s)(2) will apply.

(13) Control Room Ventilation System (Section 6.5.1, SSER #5, SSER #6)*

Prior to July 1, 1985, the licensee shall incorporate modifications, as necessary, to ensure that the control room ventilation system may be used during an accident to protect operators within the criteria specified in 10 CFR 50, Appendix A, General Design Criteria 19.

(14) Turbine Missiles (Section 3.5.1.3, SSER #5)

The licensee shall volumetrically inspect all three low pressure turbine rotors by every third refueling outage, until a turbine system maintenance program based on the manufacturer's calculations of missile generation probabilities is approved by the staff.

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*Requires exemption; see Paragraph 2.D

(15) Operating Staff Experience Requirements (Section 13.1.2.1, SSER #5)

The licensee shall have a licensed senior operator on each shift who has had at least six months of hot operating experience on a similar type plant, including at least six weeks at power levels greater than 20% of full power, and who has had start-up and shut-down experience, except as follows. For those shifts where such an individual is not available on the plant staff, an advisor shall be provided who has had at least four years of power plant experience, including two years of nuclear plant experience, and who has had at least one year of experience on shift as a licensed senior operator at a similar type facility. Use of advisors who were licensed only at the RO level will be evaluated on a case-by-case basis. Advisors shall be trained on plant procedures, technical specifications and plant systems, and shall be examined on these topics at a level sufficient to assure familiarity with the plant. For each shift, the remainder of the shift crew shall be trained as to the role of the advisors. These advisors shall be retained until the experience levels identified in the first sentence above have been achieved. The NRC shall be notified at least 30 days prior to the date that the licensee proposes to release the advisors from further service.

D. The facility requires exemptions from certain requirements of Appendices A, E and J to 10 CFR Part 50. These include (a) an exemption from the requirement of Paragraph III.D.2(b)(ii) of Appendix J, the testing of containment air locks at times when containment integrity is not required (Section 6.2.6 of the SER), (b) an exemption from GDC-2 of Appendix A, the requirement that structures, systems and components important to safety be designed to withstand the effects of natural phenomena such as earthquakes (Section 3.10 of SSER #5), (c) an exemption from GDC-13 and GDC-17 of Appendix A, the requirement that instrumentation be provided to monitor variables and systems over their anticipated ranges, and the requirement that provisions be included to minimize the probability of losing electric power (Section 9.5.4.1 of SSER #5), (d) an exemption from GDC-19 of Appendix A, the requirement that the control room have adequate radiation protection to permit access and occupancy under accident conditions (Section 6.5.1 of SSER #6), and (e) an exemption from the requirement of Section IV.F of Appendix E that a full participation emergency planning exercise be conducted within one year before issuance of the first operating license for full power and prior to operation above 5% of rated power (Section 13.3 of SSER #6). These exemptions are authorized by law and will not endanger life or property or the

common defense and security and are otherwise in the public interest. Therefore, these exemptions are hereby granted pursuant to 10 CFR 50.12. With the granting of these exemptions the facility will operate, to the extent authorized herein, in conformity with the application, as amended, the provisions of the Act, and the rules and regulations of the Commission.

E. The licensee shall maintain in effect and fully implement all provisions of the Commission approved Physical Security Plan, Guard Training and Qualification Plan, and Contingency Plan, including amendments made pursuant to the authority of 10 CFR 50.54(p). The approved plans which contain Safeguards Information and are required to be protected against unauthorized disclosure in accordance with 10 CFR 73.21 are collectively entitled: Commonwealth Edison Company, Byron Nuclear Power Station Physical Security Plan, Security Personnel Training and Qualification Plan*, and Safeguards Contingency Plan*, Revision 2 (May 1980), transmitted by letter dated May 2, 1980, as revised by Revision 3 (June 1980) transmitted by letter dated June 27, 1980, as revised by Revision 4 (August 1980) transmitted by letter of August 11, 1980, as revised by Revision 5 (January 1982) transmitted by letter of January 25, 1982, as revised by Revision 6 (April 1982) transmitted by letter dated April 19, 1982, as revised by Revision 7 (September 1982) transmitted by letters dated October 8 and December 22, 1982, as revised by Revision 8 (August 1983) transmitted by letters dated September 16, 1983 and October 28, 1983, as revised by Revision 9 (October 1983) transmitted by letter dated November 17, 1983, as revised by Revision 10 (January 1984) transmitted by letter dated December 30, 1983, as revised by Revisions 11 and 12 (July and August 1984) transmitted by letter dated August 29, 1984.

F. Except as otherwise provided in the Technical Specifications or Environmental Protection Plan, the licensee shall report any violations of the requirements contained in Section 2.C of this license in the following manner: initial notification shall be made within 24 hours to the NRC Operations Center via the Emergency Notification System with written followup within thirty days in accordance with the procedures described in 10 CFR 50.73(b), (c) and (e).

G. The licensee shall have and maintain financial protection of such type and in such amounts as the Commission shall require in accordance with Section 170 of the Atomic Energy Act of 1954, as amended, to cover public liability claims.

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*The Security Personnel Training and Qualification Plan and the Safeguards Contingency Plan are Appendices to the Security Plan.

H. This license is effective as of the date of issuance and shall expire at Midnight October 31, 2024.

FOR THE NUCLEAR REGULATORY COMMISSION

/S/

Harold R. Denton, Director
Office of Nuclear Reactor Regulation

Attachments/Appendices:
1. Attachment 1
2. Attachment 2
3. Appendix A - Technical Specifications (NUREG-1113)
4. Appendix B - Environmental Protection Plan

Date of Issuance: FEB 14 1985

		D:DL FMiraglia 02/14/85	D:NRR HDenton 02/14/88	
LB#1:DL LOlshan:kab 02/17/85	LB#1:DL MRushbrook 02/12/85	LB#1:DL BJYoungblood 02/12/85	OELD SLewis 02/12/85	AD:I:DL TNovak 02/14/85

ATTACHMENT 1

This attachment identifies certain preoperational tests and other items which must be completed to the Commission's satisfaction and identifies the required timing for their completion.

A. Preoperational test VA 84.11 (auxiliary building ventilation) shall be completed, including the resolution of any retest deficiencies, prior to July 1, 1985.

B. For initial startup test program tests in the 50%, 75%, 90% and 100% power sequences, procedures which have been approved by both the Station and PED shall be provided to Region III at least 30 calendar days before the start date of the applicable sequence.

C. Prior to July 1, 1985, the licensee shall complete integrated testing of the Control Room (VC), Auxiliary Building (VA), Miscellaneous Electric Equipment Room (VE), and ESF Switchgear Room (VX) ventilation systems in all modes of operation to demonstrate that the Control Room envelope can be maintained at a positive 1/8 inch water gauge differential pressure with respect to adjacent areas.

ATTACHMENT 2

EMERGENCY RESPONSE CAPABILITIES

The licensee shall complete the following requirements of NUREG-0737 Supplement #1 on the schedule noted below:

1. Detailed Control Room Design Review (DCRDR)

   The licensee shall submit the final summary report for the DCRDR by December 1, 1986.

2. Regulatory Guide 1.97, Revision 2 Compliance

   The licensee shall submit by March 1, 1987, a preliminary report describing how the requirements of Regulatory Guide 1.97, Revision 2 have been or will be met. The licensee shall submit by September 1, 1987, the final report and a schedule for implementation (assuming the NRC approves the DCRDR by March 1, 1987).

3. Upgrade Emergency Operating Procedures (EOPs)

   The licensee shall submit a Procedures Generation Package within 3 months of NRC approval of Westinghouse Owners Group (WOG) Emergency Procedure Guidelines (EPG) Revision 1. The licensee shall implement the upgraded EOPs based on WOG EOPs Revision 1 within 12 months of NRC approval of WOG EPG Revision 1.

4. Emergency Response Facilities

   The licensee shall implement the Emergency Response Facility meteorological A-model by January 1, 1986.

5. Safety Parameter Display System (SPDS)

   The licensee shall have SPDS operational by March 30, 1985.

APPENDIX B

TO FACILITY OPERATING LICENSE NO. NPF-37

COMMONWEALTH EDISON COMPANY

BYRON STATION UNITS 1 & 2

DOCKET NOS. 50-454 AND 50-455

ENVIRONMENTAL PROTECTION PLAN
(NONRADIOLOGICAL)

BYRON STATION

UNITS 1 AND 2

ENVIRONMENTAL PROTECTION PLAN

(NON-RADIOLOGICAL)

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1.0 Objectives of the Environmental Protection Plan

The Environmental Protection Plan (EPP) is to provide for protection of nonradiological environmental values during operation of the nuclear facility. The principal objectives of the EPP are as follows:

(1) Verify that the facility is operated in an environmentally acceptable manner, as established by the Final Environmental Statement - Operating License Stage (FES-OL) and other NRC environmental impact assessments.

(2) Coordinate NRC requirements and maintain consistency with other Federal, State and local requirements for environmental protection.

(3) Keep NRC informed of the environmenal effects of facility construction and operation and of actions taken to control those effects.

Environmental concerns identified in the FES-OL which relate to water quality matters are regulated by way of the licensee's NPDES permit.

2.0 Environmental Protection Issues

In the FES-OL dated April 1982, the staff considered the environmental impacts associated with the operation of the two unit Byron Station. Certain environmental issues were identified which required study or license conditions to resolve environmental concerns and to assure adequate protection of the environment.

2.1 Aquatic Issues

No specific aquatic issues were raised by the staff in the FES-OL.

Aquatic matters are addressed by the effluent limitations, monitoring requirements and the Section 316(b) demonstration requirement contained in the effective NPDES permit issued by the Illinois Environmental Protection Agency. The NRC will rely on this agency for regulation of matters involving water quality and aquatic biota.

2.2 Terrestrial Issues

The terrestrial issues raised by the staff in the FES-OL were:

(1) Potential impacts of cooling tower emissions on the terrestrial environment (FES-OL Section 5.5.1.1).

(2) Potential increased noise level impacts in the vicinity of the station (FES-OL Section 5.12).

NRC requirements with regard to the terrestrial issues are specified in Subsection 4.2 of this EPP.

3.0 Consistency Requirements

3.1 Plant Design and Operation

The licensee may make changes in station design or operation or perform tests or experiments affecting the environment provided such activities do not involve an unreviewed environmental question and do not involve a change in the EPP*. Changes in station design or operation or performance of tests or experiments which do not affect the environment are not subject to the requirements of this EPP. Activities governed by Section 3.3 are not subject to the requirements of this Section.

Before engaging in additional construction or operational activities which may significantly affect the environment, the licensee shall prepare and record an environmental evaluation of such activity. Activities are excluded from this requirement if all measurable nonradiological environmental effects are confined to the on-site areas previously disturbed during site preparation and plant construction. When the evaluation indicates that such activity involves an unreviewed environmental question, the licensee shall provide a written evaluation of such activity and obtain prior NRC approval. When such activity involves a change in the EPP, such activity and change to the EPP may be implemented only in accordance with an appropriate license amendment as set forth in Section 5.3 of this EPP.

* This provision does not relieve the licensee of the requirements of 10 CFR 50.59.

A proposed change, test or experiment shall be deemed to involve an unreviewed environmental question if it concerns: (1) a matter which may result in a significant increase in any adverse environmental impact previously evaluated in the FES-OL, environmental impact appraisals, or in any decisions of the Atomic Safety and Licensing Board; or (2) a significant change in effluents or power level [in accordance with 10 CFR Part 51.5(b)(2)] or (3) a matter, not previously reviewed and evaluated in the documents specified in (1) of this Subsection, which may have a significant adverse environmental impact.

The licensee shall maintain records of changes in facility design or operation and of tests and experiments carried out pursuant to this Subsection. These records shall include written evaluations which provide bases for the determination that the change, test, or experiment does not involve an unreviewed environmental question or constitute a decrease in the effectiveness of this EPP to meet the objectives specified in Section 1.0. The licensee shall include as part of the Annual Environmental Operating Report (per Subsection 5.4.1) brief descriptions, analyses, interpretations, and evaluations of such changes, tests and experiments.

3.2 Reporting Related to the NPDES Permit and State Certification

Changes to, or renewals of, the NPDES Permit or the State certification shall be reported to the NRC within 30 days following the date the change or renewal is approved. If a permit or certification, in part or in its entirety, is appealed and stayed, the NRC shall be notified within 30 days following the date the stay is granted.

The licensee shall notify the NRC of changes to the effective NPDES Permit proposed by the licensee by providing NRC with a copy of the proposed change at the same time it is submitted to the permitting agency. The licensee shall provide the NRC a copy of the application for renewal of the NPDES Permit at the same time the application is submitted to the permitting agency.

3.3 Changes Required for Compliance with Other Environmental Regulations

Changes in plant design or operation and performance of tests or experiments which are required to achieve compliance with other Federal, State, and local environmental regulations are not subject to the requirements of Section 3.1.

4.0 Environmental Conditions

4.1 Unusual or Important Environmental Events

Any occurrence of an unusual or important event that indicates or could result in significant environmental impact causally related to plant operation shall be recorded and reported to the NRC within 24 hours followed by a written report per Subsection 5.4.2. The following are examples: excessive bird impaction events, onsite plant or animal disease outbreaks, mortality or unusual occurrence of any species protected by the Endangered Species Act of 1973, fish kills, increase in nuisance organisms or conditions, and unanticipated or emergency discharge of waste water or chemical substances.

No routine monitoring programs are required to implement this condition.

4.2 Environmental Monitoring

4.2.1 Aerial Remote Sensing

Vegetative communities of an area of approximately 1 km radius centered at the Byron Station shall be aerially photographed using false color infrared film in order to detect and assess the effect, or lack of effect, related to cooling tower drift deposition.

Photographs will be taken at a scale of 1 inch to 500 feet to provide the necessary detail to enable identification of vegetative damage over relatively small areas of terrain. Some circumstances may warrant inspection of photographs discerning individual trees. Photographs shall be compared with baseline

to ascertain changes in vegetation. A consulting plant pathologist will examine and analyze the photographs to determine possible stressed foliage based on color signature differences. The consulting plant pathologist will conduct a field survey of suspect areas to identify the cause of any stressed vegetation that may be present.

The aerial photographic monitoring will be done between August 15 and September 15 once before the station goes into operation and during the first summer after the station has been in operation for one year. The program shall be repeated in the August 15-September 15 interval once the following year and alternate years for three additional periods.

A report shall be submitted as part of the annual report following each aerial photographic monitoring period. The report shall contain a description of the program, results and interpretive analyses of environmental effects, if any. In addition one set of color transparencies encompassing the 1 km radius of the cooling tower will be submitted.

4.2.2 Confirmatory Sound Level Survey

Surveys shall be conducted to quantify the operational sound levels that exist at various locations around the site. The operational sound level surveys shall be conducted as soon as practicable during the operational phase of the facility, when the cooling towers are operating with their design water flow rates. Surveys shall be conducted for both one unit normal operation and again for two-unit normal operation.

For each of the surveys, sound level data shall be collected at several sites, the exact number and location to be selected by the licensee after consideration of (1) existing onsite and nearby offsite noise sources and barriers, and (2) noise sensitive land uses in the site vicinity (e.g., residences, schools, churches, cemeteries, hospitals, parks).

Each survey shall include data collected from each sampling site during the time of the year when foliage of deciduous trees is present and also from the time of year when such foliage is largely absent. Data collected from each sampling site shall encompass both the daytime and the nighttime periods. Sampling shall include the identification of pure tones, if any, emanating from plant equipment during the operational phase.

The selection, calibration and use of equipment, conduct of the surveys, and the analysis and reporting of data shall conform to the provisions of the applicable American National Standards Institute Standards. The conduct of the surveys shall be similar such that the results are comparable.

The results of the surveys conducted under this program shall be summarized, interpreted and reported in accordance with Section 5.4.1 of this EPP. The results shall include, for each sampling location for each survey, the daytime and nighttime equivalent sound levels, octave band sound, and the range of sound levels recorded. A description of the pure tones found, if any, and their sources shall also be included in the results.

The final report of this program shall present a brief assessment by the licensee of the environmental impact of plant operation on the offsite acoustic environment, and shall describe the proposed mitigative measures, if any, to be taken to reduce the impact of plant noise levels on the offsite environment. This report shall also contain a list of all noise-related complaints or inquiries received by Commonwealth Edison Company concerning the Byron Station subsequent to issuance of the operating license along with a description of the action taken by CECo to resolve these complaints or inquiries.

This program shall terminate upon completion of the collection of the specified sound level data for each phase and submission of an acceptable final report.

5.0 Administrative Procedures

5.1 Review and Audit

The licensee shall provide for review and audit of compliance with the EPP. The audits shall be conducted independently of the individual or groups responsible for performing the specific activity. A description of the organization structure utilized to achieve the independent review and audit function and results of the audit activities shall be maintained and made available for inspection.

5.2 Records Retention

Records and logs relative to the environmental aspects of station operation shall be made and retained in a manner convenient for review and inspection. These records and logs shall be made available to NRC on request.

Records of modifications to station structures, systems and components determined to potentially affect the continued protection of the environment shall be retained for the life of the station. All other records, data and logs relating to this EPP shall be retained for five years or, where applicable, in accordance with the requirements of other agencies.

5.3 Changes in Environmental Protection Plan

Requests for changes in the EPP shall include an assessment of the environmental impact of the proposed change and a supporting justification. Implementation

of such changes in the EPP shall not commence prior to NRC approval of the proposed changes in the form of a license amendment incorporating the appropriate revision to the EPP.

5.4 Plant Reporting Requirements

5.4.1 Routine Reports

An Annual Environmental Operating Report describing implementation of this EPP for the previous year shall be submitted to the NRC prior to May 1 of each year. The initial report shall be submitted prior to May 1 of the year following issuance of the operating license. The period of the first report shall begin with the date of issuance of the operating license.

The report shall include summaries and analyses of the results of the environmental protection activities required by Subsection 4.2 of this EPP for the report period, including a comparison with related preoperational studies, operational controls (as appropriate), and previous non-radiological environmental monitoring reports, and an assessment of the observed impacts of the plant operation on the environment. If harmful effects or evidence of trends toward irreversible damage to the environment are observed, the licensee shall provide a detailed analysis of the data and a proposed course of mitigating action.

The Annual Environmental Operating Report shall also include:

(1) A list of EPP noncompliances and the corrective actions taken to remedy them.

(2) A list of all changes in station design or operation, tests, and experiments made in accordance with Subsection 3.1 which involved a potentially significant unreviewed environmental question.

(3) A list of nonroutine reports submitted in accordance with Subsection 5.4.2.

In the event that some results are not available by the report due date, the report shall be submitted noting and explaining the missing results. The missing results shall be submitted as soon as possible in a supplementary report.

5.4.2 Nonroutine Reports

A written report shall be submitted to the NRC within 30 days of occurrence of a nonroutine event. The report shall (a) describe, analyze, and evaluate the event, including extent and magnitude of the impact, and plant operating

characteristics, (b) describe the probable cause of the event, (c) indicate the action taken to correct the reported event, (d) indicate the corrective action taken to preclude repetition of the event and to prevent similar occurrences involving similar components or systems, and (e) indicate the agencies notified and their preliminary responses.

Events reportable under this subsection which also require reports to other Federal, State or local agencies shall be reported in accordance with those reporting requirements in lieu of the requirements of this subsection. The NRC shall be provided a copy of such report at the same time it is submitted to the other agency.

COMMONWEALTH EDISON COMPANY

BYRON STATION, UNIT NO. 1

DOCKET NO. STN 50-454

NOTICE OF ISSUANCE OF FACILITY OPERATING LICENSE

Notice is hereby given that the U. S. Nuclear Regulatory Commission (the Commission or NRC), has issued Facility Operating License No. NPF-37 to Commonwealth Edison Company (the licensee) which authorizes operation of the Byron Station, Unit No. 1 (the facility), at reactor core power levels not in excess of 3411 megawatts thermal in accordance with the provisions of the License, the Technical Specifications and the Environmental Protection Plan. The issuance of this license was approved by the Nuclear Regulatory Commission at a meeting on February 12, 1985, and it supersedes the License for Fuel Loading and Low Power Testing, License No. NPF-23, issued on October 31, 1984.

Byron Station, Unit No. 1 is a pressurized water reactor located in north central Illinois, 2½ miles east of the Rock River, 3 miles south-southwest of the town of Byron, and 17 miles southwest of Rockford, Illinois. The station is within Rockvale Township, Ogle County, Illinois. The license is effective as of the date of issuance.

The application for the license complies with the standards and requirements of the Atomic Energy Act of 1954, as amended (the Act), and the Commission's regulations. The Commission has made appropriate findings as required by the Act and the Commission's regulations in 10 CFR Chapter I which are set forth in the License. Prior public notice of the overall action involving the proposed issuance of an operating license was published in the Federal Register on December 15, 1978 (43 FR 58659).

The Commission has determined that the issuance of this license will not result in any environmental impacts other than those evaluated in the Final Environmental Statement and the Assessment of the Effect of License Duration on Matters Discussed in the Final Environmental Statement for the Byron Station, Units 1 and 2 (dated April 1982) since the activity authorized by the license is encompassed by the overall action evaluated in the Final Environmental Statement.

For further details with respect to this action, see (1) Facility Operating License No. NPF-37, with Technical Specifications and the Environmental Protection Plan; (2) the report of the Advisory Committee on Reactor Safeguards, dated March 9, 1982; (3) the Commission's Safety Evaluation Report, dated February 1982 (NUREG-0876), and Supplements 1 through 6; (4) the Final Safety Analysis Report and Amendments thereto; (5) the Environmental Report and supplements thereto; (6) and the Final Environmental Statement, dated April 1982.

These items are available for inspection at the Commission's Public Document Room located at 1717 H Street, N. W., Washington, D. C. 20555 and at the Rockford Public Library, Rockford, Illinois. A copy of Facility Operating License NPF-37 may be obtained upon request addressed to the U. S. Nuclear Regulatory Commission, Washington, D. C. 20555, Attention: Director, Division of Licensing. Copies of the Safety Evaluation Report and Supplements 1 through 6 (NUREG-0876) and the Final Environmental Statement (NUREG-0848) may be purchased at current rates from the National Technical Information Service, Department of Commerce, 5285 Port Royal Road, Springfield, Virginia 22161, and through the NRC GPO sales program by writing to the U. S. Nuclear Regulatory Commission, Attention: Sales Manager, Washington, D. C. 20555. GPO deposit account holders may call 301-492-9530.

Dated at Bethesda, Maryland this 14th day of February 1985.

FOR THE NUCLEAR REGULATORY COMMISSION

/S/

B. J. Youngblood, Chief
Licensing Branch No. 1
Division of Licensing

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

Docket No. 50-454

AMENDMENT TO INDEMNITY AGREEMENT NO. B-97
AMENDMENT NO. 2

Effective February 14, 1985 , Indemnity Agreement No. B-97, between Commonwealth Edison Company and the Nuclear Regulatory Commission, dated May 6, 1983, as amended, is hereby further amended as follows:

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-1917	(From 12:01 a.m., May 6, 1983, to 12 midnight, October 30, 1984, inclusive)
NPF-23	(From 12:01 a.m., October 31, 1984, to 12 midnight, February 13, 1985 inclusive)
NPF-37	(From 12:01 a.m., February 14, 1985)

FOR THE U.S. NUCLEAR REGULATORY COMMISSION

Jerome Saltzman, Assistant Director
State and Licensee Relations
Office of State Programs

Accepted _____, 1985

By _____
COMMONWEALTH EDISON COMPANY

ISSUANCE OF BYRON, UNIT NO. 1 (100% POWER LICENSE - NPF-37)

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