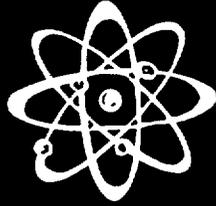


50-219

AEC



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

No. M-180
Tel. 973-3335 or
973-3446

FOR IMMEDIATE RELEASE
(Friday, August 1, 1969)

FULL POWER OPERATION AUTHORIZED FOR
OYSTER CREEK, NEW JERSEY, NUCLEAR PLANT

A license amendment authorizing full power operation of the Oyster Creek (New Jersey) Nuclear Power Plant has been issued to Jersey Central Power & Light Company by the Atomic Energy Commission's Division of Reactor Licensing.

Jersey Central built the plant under an AEC construction permit issued in December 1964. The plant is located in Lacey Township, Ocean County, about 35 miles north of Atlantic City. It was built for Jersey Central by the General Electric Company with Burns & Roe as architect-engineer.

The facility uses a boiling water reactor which is designed to operate at 1600 megawatts thermal. At this level the plant would produce about 515,000 kilowatts of electricity. The initial license issued in April 1969 limited operation to five thermal megawatts to permit fuel loading and testing pending modification of the standby gas treatment system; additional review of the quality of certain piping in the facility, and evaluation of preoperational testing of containment isolation valves. A subsequent amendment to Jersey Central's application provided additional data. The AEC requested additional non-destructive testing of some of the piping and valves. This has been completed and the Commission has found that the items in question have been satisfactorily resolved.

#

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APR 9 1969

Docket No. 50-219

Jersey Central Power & Light Company
 Madison Avenue at Punch Bowl Road
 Morristown, New Jersey 07960

Attention: Mr. John E. Logan
 Vice President

Gentlemen:

Provisional Operating License No. DPR-16 with appended Technical Specifications and Special Nuclear Material Transfer Schedule is enclosed. The license authorizes Jersey Central Power & Light Company to possess, use, and operate at thermal power levels up to five megawatts the Oyster Creek Nuclear Power Plant Unit No. 1 on the Company's site in Lacey Township, Ocean County, New Jersey.

A copy of a related notice which has been forwarded to the Office of the Federal Register for filing and publication is also enclosed, together with the addendum to AEC safety evaluation referred to in the notice. The provisional operating license has been issued pursuant to the notice of proposed action published in the Federal Register on December 27, 1968, 33 F.R. 19860.

Two signed copies of Amendment No. 5 to Indemnity Agreement No. B-37 which covers the activities authorized under this license are enclosed for your review and acceptance. Please sign and return one copy of the Amendment to this office.

Sincerely yours,

Original Signed by
 Peter A. Morris

Peter A. Morris, Director
 Division of Reactor Licensing

SEE Rpts. FOR ^{Amend. A} + ERATE SHEET

Enclosures:

1. Lic. No. DPR-16
2. Fed. Reg. Notice
3. Addendum to Safety Eval.
4. Amend. No. 5 to Indemnity Agreement No. B-37

SLR
 ERP/ice
 4/9/69

OCCE ▶	George F. Trowbridge, Esq. w/encs. Shaw, Pittman, Potts, Trowbridge & Madden	OGC attached TBC conveyed on license	DRL:RP RL Tedesco RS Boyd	DRL PAMorris
SURNAME ▶	H Steele	4/9/69	4/169	4/9/69
DATE ▶	H Steele			



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

JERSEY CENTRAL POWER & LIGHT COMPANY

DOCKET NO. 50-219

PROVISIONAL OPERATING LICENSE

License No. DPR-16

The Atomic Energy Commission (the Commission) having found that:

- a. The application for provisional operating license (application Amendment Nos. 3 through 52, dated January 18, 1967, February 28, 1967, June 1, 1967, July 27, 1967, August 22, 1967, August 22, 1967, August 30, 1967, September 7, 1967, September 15, 1967, September 21, 1967, October 30, 1967, October 17, 1967, October 17, 1967, October 17, 1967, October 24, 1967, October 30, 1967, October 30, 1967, November 27, 1967, November 28, 1967, December 4, 1967, December 4, 1967, December 7, 1967, December 4, 1967, December 27, 1967, February 16, 1968, January 5, 1968, March 21, 1968, March 21, 1968, March 27, 1968, May 1, 1968, July 3, 1968, July 3, 1968, August 12, 1968, July 26, 1968, October 18, 1968, October 24, 1968, October 31, 1968, November 20, 1968, October 8, 1968, November 1, 1968, November 20, 1968, November 27, 1968, February 27, 1969, March 25, 1969 and March 25, 1969, respectively) complies with the requirements of the Atomic Energy Act of 1954, as amended, and the Commission's regulations set forth in Title 10, Chapter 1, CFR;
- b. The facility has been constructed for the purposes of low power operations in accordance with the application, as amended, and the provisions of Provisional Construction Permit No. CPPR-15;
- c. There are involved features, characteristics and components as to which it is desirable to obtain actual operating experience before the issuance of an operating license for the full term requested in the application;
- d. There is reasonable assurance (i) that the facility can be operated at power levels not in excess of five megawatts thermal in accordance with this license 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. The applicant is technically and financially qualified to engage in the activities authorized by this license, in accordance with the rules and regulations of the Commission;

- f. The applicant has furnished proof of financial protection to satisfy the requirements of 10 CFR, Part 140;
- 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;

Provisional Operating License No. DPR-16 is hereby issued to Jersey Central Power & Light Company (Jersey Central), as follows:

1. This license applies to the Oyster Creek Nuclear Power Plant Unit No. 1, a single cycle, forced circulation, boiling light water reactor, and electric generating equipment (the facility). The facility is located on Jersey Central's Oyster Creek site in Lacey Township, Ocean County, New Jersey, approximately sixty miles south of Newark and forty-five miles east of Philadelphia, Pennsylvania, and is described in license application Amendment No. 3, "Facility Description and Safety Analysis Report," as supplemented and amended, Amendment Nos. 4 through 52.
2. Subject to the conditions and requirements incorporated herein, the Commission hereby licenses Jersey Central:
 - A. Pursuant to Section 104b of the Atomic Energy Act of 1954, as amended (the Act), and 10 CFR Part 50, "Licensing of Production and Utilization Facilities," to possess, use, and operate the facility as a utilization facility at the designated location on Jersey Central's Oyster Creek site;
 - B. Pursuant to the Act and Title 10, CFR, Part 70, "Special Nuclear Material," to receive, possess and use at any one time up to 3600 kilograms of contained uranium 235 in connection with operation of the facility;
 - C. Pursuant to the Act and Title 10, CFR, Part 30, "Rules of General Applicability to Licensing of Byproduct Material," to receive, possess and use 12,000 curies of antimony 124 and 15 curies of americium 241 as Sb-Be and Am-Be neutron sources, 1 curie of Co-60 and 5 curies of Cs-137 as sealed sources; and
 - D. Pursuant to the Act and Parts 30 and 70, to possess, but not to separate, such byproduct and special nuclear material as may be produced by operation of the facility.
3. This license shall be deemed to contain and is subject to the conditions specified in the following Commission regulations in 10 CFR Part 20, Section 30.34 of Part 30, Section 40.41 of Part 40, Sections 50.54 and 50.59 of Part 50, and Section 70.32 of Part 70, and is subject to all applicable provisions of the Act and rules, regulations and orders of the Commission now or hereafter in effect; and is subject to the additional conditions specified below:

A. Maximum Power Level

Jersey Central is authorized to operate the facility at steady state power levels up to a maximum of five megawatts thermal and without the reactor vessel head in place.

B. Technical Specifications

The Technical Specifications contained in Appendix A attached hereto are hereby incorporated in this license. Jersey Central shall operate the facility at power levels not in excess of five megawatts thermal in accordance with the Technical Specifications, and may make changes therein only when authorized by the Commission in accordance with the provisions of Section 50.59 of 10 CFR Part 50.

C. Reports

In addition to the reports otherwise required under this license and applicable regulations:

- (1) Jersey Central shall inform the Commission of any incident or condition relating to the operation of the facility which prevented or could have prevented a nuclear system from performing its safety functions as described in the Technical Specifications. For each such occurrence, Jersey Central shall promptly notify by telephone or telegram the appropriate Atomic Energy Commission Regional Compliance Office listed in Appendix D of 10 CFR 20, and shall submit within ten (10) days a report in writing to the Director, Division of Reactor Licensing (Director, DRL), with a copy to the Division of Compliance.
- (2) Jersey Central shall report to the Director, DRL, in writing within thirty (30) days of its observed occurrence any substantial variance disclosed by operation of the facility from performance specifications contained in the Facility Description and Safety Analysis Report (safety analysis report) or the Technical Specifications.
- (3) Jersey Central shall report to the Director, DRL, in writing within thirty (30) days of its occurrence any significant changes in transient or accident analysis as described in the safety analysis report.
- (4) As soon as possible after the completion of six months of operation of the facility (calculated from the date of initial criticality), Jersey Central shall begin submitting reports in writing in accordance with the requirements of the Technical Specifications.

D. Records

Jersey Central shall keep facility operating records in accordance with the requirements of the Technical Specifications.

4. Pursuant to Section 50.60, Title 10, CFR, Part 50, the Commission has allocated to Jersey Central for use in the operation of the facility 21,246 kilograms of uranium 235 contained in uranium in the isotopic ratios specified in the application. Estimated schedules of special nuclear material transfers to Jersey Central and returns to the Commission are contained in Appendix B which is attached hereto. Transfers by the Commission to Jersey Central in accordance with column 2 in Appendix B will be conditioned upon Jersey Central's return to the Commission of material substantially in accordance with column 3 (including the subcolumns headed "Scrap" and "Depleted Fuel").
5. This license is effective as of the date of issuance and shall expire eighteen (18) months from said date, unless extended for good cause shown, or upon the earlier issuance of a superseding operating license.

FOR THE ATOMIC ENERGY COMMISSION

Original Signed by
Peter A. Morris

Peter A. Morris, Director
Division of Reactor Licensing

Enclosures:

- Appendix A - Tech. Specs.
- Appendix B - SNM Schedule

Date of Issuance: APR 9 1969

*Comments
revised on p 2 of notes
OGC p 2 of license.
ABC*

DRL:RP
RLTedesco

DRL:RP
RSBoyd

DRL
PAMorris

APPENDIX B

ESTIMATED SCHEDULE OF TRANSFERS OF SPECIAL NUCLEAR MATERIAL
FROM THE COMMISSION TO JERSEY CENTRAL AND TO THE COMMISSION
FROM JERSEY CENTRAL

<u>Date of Transfer (Fiscal Year)</u>	<u>Transfer from AEC to JC (a)</u>	<u>Returns from JC to AEC</u>		<u>Net Yearly Transfers</u>	<u>Cumulative Requirements Including Cu- mulative Losses</u>
		<u>Scrap (a)</u>	<u>Depleted Fuel (b)</u>		
	<u>kg U-235</u>	<u>kg U-235</u>	<u>kg U-235</u>	<u>kg U-235</u>	<u>kg U-235</u>
1965	2418 (c)	-----	-----	2418	2418
1966	-----	152 (c)	-----	(152)	2266
1967	-----	-----	-----	-----	-----
1968	712	-----	-----	712	2978
1969	1424	45	-----	1397	4357
1970	712	90	297 (d)	325	4682
1971	712	45	460 (e)	207	4889
1972	712	45	152 (f)	515	5404
1973	712	45	253 (g)	414	5818
1974	712	45	235 (h)	432	6250
1975	712	45	222 (i)	445	6695
1976	712	45	220 (j)	447	7142
1977	712	45	233 (k)	434	7576
1978	712	45	228 (l)	439	8015
1979	712	45	225	442	8457
1980	712	45	226	441	8898
1981	1424	45	226	1153	10051
1982	712	90	226	396	10447
1983	712	45	452	215	10662
1984	712	45	226	441	11103
1985	712	45	226	441	11544
1986	712	45	226	441	11985
1987	712	45	226	441	12426
1988	712	45	226	441	12867
1989	712	45	226	441	13308
1990	712	45	226	441	13749
1991	712	45	226	441	14190
1992	1424	45	226	1153	15343
1993	712	90	226	396	15739
1994	712	45	452	215	15954
1995	712	45	226	441	16395
1996	712	45	226	441	16836
1997	712	45	226	441	17277
1998	712	45	226	441	17718
1999	712	45	226	441	18159
2000	712	45	226	441	18600
2001	712	45	226	441	19041
2002	712	45	226	441	19482

APPENDIX B

(2)

ESTIMATED SCHEDULE OF TRANSFERS OF SPECIAL NUCLEAR MATERIAL
FROM THE COMMISSION TO JERSEY CENTRAL AND TO THE COMMISSION
FROM JERSEY CENTRAL

<u>Date of Transfer (Fiscal Year)</u>	<u>Transfers from AEC to JC</u> (a)	<u>Returns from JC to AEC</u> Scrap (a) Depleted Fuel (b)	<u>Net Yearly Transfers</u>	<u>Cumulative Requirements Including Cu- mulative Losses</u>
2003	1424	45 226	1153	20635
2004	712	90 226	396	21031
2005	712	45 452	215	21246
2006	-----	45 226	(271)	20975
2007	-----	24(m) 226	(250)	20725
2008	-----	1537(n)	<u>(1537)</u>	19188
			19,188	

NOTE: Based on Power Levels of 1600 MWT the First Year, 1775 MWT the Second Year and 1950 MWT after the Second Year

- (a) 2.5% U-235 except (c)
- (b) 0.90% U-235 except (d), (e), (f), (g), (h), (i), (j)
- (c) 2.1% U-235
- (d) 1.168% U-235
- (e) 255 kg @ 1.004% U-235 205 kg @ 0.813% U-235
- (f) 0.606% U-235
- (g) 1.006% U-235
- (h) 0.935% U-235
- (i) 0.886% U-235
- (j) 0.875% U-235
- (k) 0.928% U-235
- (l) 0.906% U-235
- (m) Added to initial fuel requirements for possible spares amounting to 1%
- (n) 226 kg @ 0.90% U-235 332 kg @ 1.30% U-235
437 kg @ 1.70% U-235 542 kg @ 2.1% U-235

APR 9 1969

ADDENDUM TO THE
SAFETY EVALUATION
BY THE
DIVISION OF REACTOR LICENSING
U. S. ATOMIC ENERGY COMMISSION
IN THE MATTER OF
JERSEY CENTRAL POWER & LIGHT COMPANY
OYSTER CREEK NUCLEAR POWER PLANT UNIT NO. 1
DOCKET NO. 50-219

This addendum to our safety evaluation in the matter of Jersey Central Power & Light Company (Oyster Creek Nuclear Power Plant Unit No. 1) deals with our analysis of certain changes in the design of the penetrations through the primary containment. This matter is treated in application Amendments Nos. 50 and 51 dated February 27, 1969 and March 25, 1969.

As described in Section 3.3 of our safety evaluation, the applicant had originally designed these penetrations according to Section VIII of the ASME Boiler and Pressure Vessel Code and to certain nuclear code cases. It was found that the penetration design would require massive restraints that would have affected the capability for maintenance and for in-service inspection of various components. Subsequently, the applicant re-evaluated its design approach using Section III of the ASME Boiler and Pressure Vessel Code. Because of higher allowable stresses permitted in Section III for the loading conditions and a more refined analysis of the loads, the applicant concluded that massive restraints inside the primary containment would not be required. In several instances, however, penetration restraints external to the containment were reinforced to accommodate accident loads to assure containment integrity.

On the basis of our review of the revised design described by the applicant in Amendments Nos. 50 and 51, we have concluded that there is adequate protection to assure the integrity of the primary containment penetrations under the various postulated accident loading conditions and that no change in our conclusions as to the safety of the facility need be made.

**Original Signed by
Peter A. Morris**

**Peter A. Morris, Director
Division of Reactor Licensing**

Date: **APR 9 1969**

UNITED STATES ATOMIC ENERGY COMMISSION

DOCKET NO. 50-219

JERSEY CENTRAL POWER & LIGHT COMPANY

NOTICE OF ISSUANCE OF PROVISIONAL OPERATING LICENSE

Notice is hereby given that no request for a hearing by the applicant or petition for leave to intervene by any interested person having been filed following publication of the notice of proposed action in the FEDERAL REGISTER, the Atomic Energy Commission has issued Provisional Operating License No. DPR-16 to Jersey Central Power & Light Company (Jersey Central) authorizing the licensee to possess, use, and operate the Oyster Creek Nuclear Power Plant Unit No. 1, a single cycle, forced circulation, boiling water nuclear reactor, located on Jersey Central's site in Lacey Township, Ocean County, New Jersey. The reactor is designed to operate at approximately 1600 megawatts thermal, but initial operation will be limited to five megawatts thermal and without the reactor head in place, to permit initial fuel loading and testing pending (1) modification of the standby gas treatment system, (2) additional review of the quality of certain piping in the facility, and (3) evaluation of preoperational testing of containment isolation valves.

The Commission has inspected the facility and, for low power operation, has determined it has been constructed in accordance with the application, as amended, and the provisions of Construction Permit No. CPPR-15.

Since publication of the notice of the proposed action, Jersey Central filed license application Amendments Nos. 50, 51 and 52, dated February 27, 1969, March 25, 1969 and March 25, 1969, respectively, submitted at the Commission's request to document completely the design of penetrations through the primary containment and to provide additional information on the startup organization and on

secondary containment leakage tests. On the basis of the review of this information, the Commission has concluded that there should be no change in the conclusions as to the safety of the facility. The Division of Reactor Licensing has prepared an addendum to the safety evaluation dealing with the penetration design change. Copies of both the application amendments and addendum are available for public inspection in the Commission's Public Document Room, 1717 H Street, N. W., Washington, D. C.

The license was issued as set forth in the Notice of Proposed Issuance of Provisional Operating License published in the FEDERAL REGISTER on December 27, 1968, 33 F.R. 19860, except for (1) the addition of a reference to application Amendments Nos. 50, 51 and 52 in paragraph a. of the findings, (2) the correction of clerical errors on page 2, paragraphs 1. and 2.C. of the proposed license, (3) the revision of paragraph 3.A. to reflect the limitation of power level to five megawatts thermal, and (4) the correction of certain typographical and clerical errors in the Technical Specifications, as set forth in the errata sheet attached to the Technical Specifications as issued with Provisional Operating License No. DPR-16. A copy of the license, complete with Technical Specifications and errata sheet, is available for public inspection in the Commission's Public Document Room, 1717 H Street, N. W., Washington, D. C.

FOR THE ATOMIC ENERGY COMMISSION

Original Signed by
Peter A. Morris

Peter A. Morris, Director
Division of Reactor Licensing

Dated at Bethesda, Maryland
this 9th day of April, 1969.