February 6, 1990

Docket No. 50-219

Mr. E. E. Fitzpatrick
Vice President and Director
Oyster Creek Nuclear Generating Station
Post Office Box 388
Forked River, New Jersey 08731

Dear Mr. Fitzpatrick:

SUBJECT: OYSTER CREEK NUCLEAR GENERATING STATION - ISSUANCE OF AMENDMENT (TAC NO. 64381)

The Commission has issued the enclosed Amendment No. 137 to Provisional Operating License No. DPR-16 for the Oyster Creek Nuclear Generating Station, in response to your application dated June 30, 1989.

The amendment revises the Technical Specifications to distinguish high range and low range radioactive noble gas monitors, and to add limiting conditions for operation and surveillance requirements for the high range monitors. The Technical Specifications for the low range monitors are not changed.

A copy of the related Safety Evaluation is also enclosed. The notice of issuance will be included in the Commission's bi-weekly Federal Register notice.

Sincerely,

/s/

Alexander W. Dromerick, Project Manager
Project Directorate I-4
Division of Reactor Projects - I/II
Office of Nuclear Reactor Regulation

Enclosures:
1. Amendment No. 137 to DPR-16
2. Safety Evaluation

cc w/enclosures:
See next page

OFC	:LA:PDI-4	:PM:PDI-4	: PD:PDI-4	:OGC	:	:	:
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Mr. E. E. Fitzpatrick
Oyster Creek Nuclear Generating Station

Oyster Creek Nuclear
Generating Station

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DATED: February 6, 1990

AMENDMENT NO. 137 TO FACILITY OPERATING LICENSE NO. DPR-16

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

GPU NUCLEAR CORPORATION

AND

JERSEY CENTRAL POWER & LIGHT COMPANY

DOCKET NO. 50-219

OYSTER CREEK NUCLEAR GENERATING STATION

AMENDMENT TO PROVISIONAL OPERATING LICENSE

Amendment No. 137
License No. DPR-16

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

   A. The application for amendment by GPU Nuclear Corporation, et al., (the licensee), dated June 30, 1989 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 Provisional Operating License No. DPR-16 is hereby amended to read as follows:

(2) Technical Specifications

The Technical Specifications contained in Appendices A and B, as revised through Amendment No.137 , are hereby incorporated in the license. GPU Nuclear Corporation shall operate the facility in accordance with the Technical Specifications.

3. This license amendment is effective as of the date of issuance, to be implemented within 30 days of issuance.

FOR THE NUCLEAR REGULATORY COMMISSION

Michael F. Masnik for

John F. Stolz, Director
Project Directorate I-4
Division of Reactor Projects - I/II
Office of Nuclear Reactor Regulation

Attachment:
Changes to the Technical
Specifications

Date of Issuance: February 6, 1990

ATTACHMENT TO LICENSE AMENDMENT NO. 137

PROVISIONAL OPERATING LICENSE NO. DPR-16

DOCKET NO. 50-219

Replace the following pages of the Appendix A Technical Specifications with the enclosed pages as indicated. The revised pages are identified by amendment number and contain vertical lines indicating the areas of change.

Remove		Insert	
Page 3.13-3		Page 3.13-3	
3.13-4		3.13-4	
4.13-1		4.13-1	
6-13		6-13	
Table 3.13.1	Page 3.13-5	Table 3.13.1	Page 3.13-5
3.15.2	3.15-6	3.15.2	3.15-6
4.13.1	4.13-2	4.13.1	4.13-2
4.15.2	4.15-4	4.15.2	4.15-4

2. With the number of operable channels less than the total number of channels shown in Table 3.13.1, restore the inoperable channel to operable status within 30 days or place the reactor in the shutdown condition within the next 24 hours.

3. With the number of operable channels less than the minimum channels operable requirements of Table 3.13.1, restore at least one channel to operable status within 7 days or place the reactor in the shutdown condition within the next 24 hours.

G. Containment High-Range Radiation Monitor

1. Two in-containment high range radiation monitors shall be operable at all times except for cold shutdown and other times when primary containment is not required.

2. In case of failure of one or more monitors, appropriate actions shall be taken to restore its operable capability as soon as possible. Also, refer to Table 3.1.1 for any additional action which may be required.

3. If the monitor or monitors are not restored to operable condition within 7 days after the failure, a special report shall be submitted to the NRC within 14 days following the event, outlining the cause of inoperability, actions taken and the planned schedule for restoring the equipment to operable status.

H. High Range Radioactive Noble Gas Effluent Monitor

1. The high range radioactive noble gas effluent monitors listed in Table 3.13.1 shall be OPERABLE during POWER OPERATION.

2. With the number of OPERABLE channels less than required by the minimum channels OPERABLE requirements, restore the inoperable channel(s) to OPERABLE status within 7 days of the event or prepare and submit a Special Report within 30 days following the event outlining the action taken, the cause of the inoperability and the plans and schedule for restoring the equipment to OPERABLE status.

BASES

The purpose of the safety/relief valve accident monitoring instrumentation is to alert the operator to a stuck open safety/relief valve which could result in an inventory threatening event.

As the safety valves present distinctly different concerns than those related to relief valves, the technical specifications are separated as to the actions taken upon inoperability. Clearly, the actuation of a safety valve will be immediately detectable by observed increase in drywell pressure. Further confirmation can be gained by observing reactor pressure and water level. Operator action in response to these symptoms would be taken

regardless of the acoustic monitoring system status. Acoustic monitors act only to confirm the reseating of the safety valve. In actuality, the operator actions in response to the lifting of a safety valve will not change whether or not the safety valve reseats. Therefore, the actions taken for inoperable acoustic monitors on safety valves are significantly less stringent than that taken for those monitors associated with relief valves.

Should an acoustic monitor on a safety valve become inoperable, setpoints on adjacent monitors will be reduced to assure alarm actuation should the safety valve lift, since it is of no importance to the operator as to which valves lift but only that one has lifted. Analyses, using very conservative blowdown forces and attenuation factors, show that reducing the alarm setpoint on adjacent monitors to less than 1.4g will assure alarm actuation should the adjacent safety valve lift. Minimum blowdown force considered was 30g with a maximum attenuation of 27dB. In actuality, a safety valve lift would result in considerably larger blowdown force. The maximum attenuation of 27dB was determined based on actual testing of a similar monitoring system installed in a similar configuration.

The operability of the accident monitoring instrumentation ensures that sufficient information is available on selected plant parameters to monitor and assess these variables during and following an accident. This capability is consistent with NUREGs 0578 and 0737.

The capability is provided to detect and measure concentrations of noble gas fission products in plant gaseous effluents during and following an accident. Two Radioactive Gaseous Effluent Monitoring Systems (RAGEMS) are installed at Oyster Creek to perform this function; one to monitor releases at the main stack (RAGEMS I) and one to monitor the turbine building vents (RAGEMS II). These monitors augment the capabilities provided by the Post Accident Sampling System (see FSAR section 11.5) and the Offsite Thermoluminescent Dosimeter Program (see Emergency Plan section 7.5.2.2.b).

4.13 ACCIDENT MONITORING INSTRUMENTATION

Applicability: Applies to surveillance requirements for the accident monitoring instrumentation.

Objective: To verify the operability of the accident monitoring instrumentation.

Specification:

A. Safety & Relief Valve Position Indicators

Each accident monitoring instrumentation channel shall be demonstrated operable by performance of the Channel Check and Channel Calibration operations at the frequencies shown in Table 4.13-1.

B. Wide Range Drywell Pressure Monitor

Each accident monitoring instrumentation channel shall be demonstrated operable by performance of the Channel Check and Channel Calibration operations at the frequencies shown in Table 4.13-1.

C. Wide Range Torus Water Level Monitor

Each accident monitoring instrumentation channel shall be demonstrated operable by performance of the Channel Check and Channel Calibration operations at the frequencies shown in Table 4.13-1.

D. Drywell H2 Monitor

Each accident monitoring instrumentation channel shall be demonstrated operable by performance of the Channel Check and Channel Calibration operations at the frequencies shown in Table 4.13-1.

E. Containment High-Range Radiation Monitor

Each accident monitoring instrumentation channel shall be demonstrated operable by performance of the Channel Check and Channel Calibration operations at the frequencies shown in Table 4.13-1.

F. High Range Radioactive Noble Gas Effluent Monitor

Each accident monitoring instrumentation channel shall be demonstrated operable by performance of the Channel Check and Channel Calibration operations at the frequencies shown in Table 4.13-1.

Bases:

The operability of the accident monitoring instrumentation ensures that sufficient information is available on selected plant parameters to monitor and assess these variables during and following an accident. This capability is consistent with NUREGs 0578 and 0737.

6.9.3 UNIQUE REPORTING REQUIREMENTS

Special reports shall be submitted to the appropriate NRC office within the time period specified for each report. These reports shall be submitted covering the activities identified below pursuant to the requirements of the applicable reference specification.

a. Materials Radiation Surveillance Specimen Reports (4.3A)

b. Integrated Primary Containment Leakage Tests (4.5)

c. Results of required leak tests performed on sealed sources if the tests reveal the presence of 0.005 microcuries or more of removable contamination.

d. Inoperable Fire Protection Equipment (3.12)

e. Core Spray Sparger Inservice Inspection (Table 4.3.1-9)

Prior to startup of each cycle, a special report presenting the results of the inservice inspection of the Core Spray Spargers during each refueling outage shall be submitted to the Commission for review.

f. Liquid radwaste batch discharge exceeding Specification 3.6.B.1.

g. Main condenser offgas discharge without treatment per Specification 3.6.D.1.

h. Dose due to radioactive liquid effluent exceeding Specification 3.6.J.1.

i. Air dose due to radioactive noble gas in gaseous effluent exceeding Specification 3.6.L.1.

j. Air dose due to radiodine and particulates exceeding Specification 3.6.M.1.

k. Annual total dose due to radioactive effluents exceeding Specification 3.6.N.1.

l. Records of results of analyses required by the Radiological Environmental Monitoring Program.

m. Failures and challenges to Relief and Safety Valves

Failures and challenges to Relief and Safety Valve which do not constitute an LER will be the subject of a special report submitted to the Commission within 60 days of the occurrence. A challenge is defined as any automatic actuation (other than during surveillance or testing) of Safety or Relief Valves.

n. Plans for compliance with standby liquid control Specifications 3.2.C.3(b) and 3.2.C.3(e)(1) or plans to obtain enrichment test results per Specification 4.2.E.5.

o. Inoperable high range radioactive noble gas effluent monitor (3.13.H)

TABLE 3.13.1

ACCIDENT MONITORING INSTRUMENTATION

	INSTRUMENT	TOTAL NO. OF CHANNELS	MINIMUM CHANNELS OPERABLE
1.	Relief Valve Position Indicator (Primary Detector*)	1/valve	1/valve
	Relief Valve Position Indicator (Backup Indications**)	1/valve	
2.	Wide Range Drywell Pressure Monitor (PT/PR-53 & 54)	2	1
3.	Wide Range Torus Water Level (LT/LR-37 & 38)	2	1
4.	Drywell H_2 Monitor	2	1
5.	Containment High Range Radiation	2	1
6.	High Range Radioactive Noble Gas Effluent Monitor		
	a. Main Stack	1	1
	b. Turbine Building Vents	1	1

* Acoustic Monitor

** Thermocouple

Thermocouple TE 65A can be substituted for thermocouple TE210-43V, W or X

Thermocouple TE 65B can be substituted for thermocouple TE210-43Y or Z

TABLE 3.15.2

RADIOACTIVE GASEOUS EFFLUENT MONITORING INSTRUMENTATION

Instrument	Minimum[a] Channels Operable	Essential Function	Applicability	Action
1. Main Condenser Offgas Treatment System Recombiner Effluent Hydrogen Monitor	2[d]	Monitor hydrogen concentration	c	125
2. Stack Monitoring System				
a. Radioactive Noble Gas Monitor (low range)	1	Monitor activity concentration, alarm	b,e	124
b. Iodine Sampler	1	Collect sample	b,e	127
c. Particulate Sampler	1	Collect sample	b,e	127
d. Effluent Flow Measuring Device	1	Measure air flow	b	122
e. Sampler Flow Measuring Device	1	Measure air flow	b	128
3. Turbine Building Ventilation Monitoring System				
a. Radioactive Noble Gas Monitor (low range)	1	Monitor activity concentration	b	123
b. Iodine Sampler	1	Collect sample	b	127
c. Particulate Sampler	1	Collect sample	b	127
d. Effluent Flow Measuring Device	1	Measure air flow	b	122
e. Sampler Flow Measuring Device	1	Measure air flow	b	128
4. Offgas Building Exhaust Ventilation Monitoring System				
a. Radioactive Noble Gas Monitor	1	Monitor activity concentration	b	123
b. Iodine Sampler	1	Collect sample	b	127
c. Particulate Sampler	1	Collect sample	b	127
d. Sampler Flow Measuring Device	1	Measure air flow	b	128

TABLE 4.13-1

ACCIDENT MONITORING INSTRUMENTATION SURVEILLANCE REQUIREMENTS

	INSTRUMENT	CHANNEL CHECK	CHANNEL CALIBRATION
1.	Primary and Safety Valve Position Indicator (Primary Detector*)	A	B
	Relief and Safety Valve Position Indicator (Backup Indications**)	A	B
	Relief Valve Position Indicator (Common Header Temperature Element**)	C	B
2.	Wide Range Drywell Pressure Monitor (PT/PR 53 & 54)	A	D
3.	Wide Range Torus Water Level Monitor (LT/LR 37 & 38)	A	D
4.	Drywell H_2 Monitor	A[1]	E
5.	Containment High Range Radiation Monitor	A	F***
6.	High Range Radioactive Noble Gas Effluent Monitor		
	a. Main Stack	A	F
	b. Turbine Building Vent	A	F

Legend:
A = at least once per 31 days
B = at least once per 18 months (550 days)
C = at least once per 15 days until channel calibration is performed and thence at least once per 31 days
D = at least once per 6 months
E = at least once per 12 months
F = each refueling outage

1 = Span and Zero using calibration gases

* Acoustic Monitor
** Thermocouple
*** Channel calibration shall consist of electronic signal substitution of the channel, not including the detector, for all decades above 10R/hr and a one point calibration check of the detector at or below 10R/hr by means of a calibrated portable radiation source traceable to NBS.

TABLE 4.15.2

RADIOACTIVE GASEOUS EFFLUENT MONITORING INSTRUMENTATION SURVEILLANCE REQUIREMENTS

	Instrument	Channel Check	Source Check	Channel Calibration	Channel Functional Test	Surveillance Required[a]
1.	Main Condenser Offgas Treatment System Hydrogen Monitor	D	N.A.	Q[g]	M	c
2.	Main Stack Monitoring System					
	a. Radioactive Noble Gas Monitor (Low Range)	D	M	R[f]	Q[e]	b
	b. Iodine Sampler	W	N.A.	N.A.	N.A.	b
	c. Particulate Sampler	W	N.A.	N.A.	N.A.	b
	d. Effluent Flow Measuring Device	D	N.A.	R	Q	b
	e. Sampler Flow Measuring Device	D	N.A.	R	Q	b
3.	Turbine Building Ventilation Monitoring System					
	a. Radioactive Noble Gas Monitor (Low Range)	D	M	R[f]	Q[e]	b
	b. Iodine Sampler	W	N.A.	N.A.	N.A.	b
	c. Particulate Sampler	W	N.A.	N.A.	N.A.	b
	d. Effluent Flow Measuring Device	D	N.A.	R	Q	b
	e. Sampler Flow Measuring Device	D	N.A.	R	Q	b
4.	Offgas Building Exhaust Ventilation Monitoring System					
	a. Radioactive Noble Gas Monitor	D	M	R[f]	Q[e]	b
	b. Iodine Sampler Cartridge	W	N.A.	N.A.	N.A.	b
	c. Particulate Sampler	W	N.A.	N.A.	N.A.	b
	d. Sampler Flow Measuring Device	D	N.A.	R	N.A.	b

Legend S = once per 12 hours, D = once per 24 hours, W = one per 7 days,
M = once per 31 days, Q = once per 92 days, SA = once per 184 days,
R = once per 18 months, S/U = before each reactor startup,
P = completed before each release, N.A. = Not Applicable.

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

SAFETY EVALUATION BY THE OFFICE OF NUCLEAR REACTOR REGULATION

RELATED TO AMENDMENT NO. 137

TO PROVISIONAL OPERATING LICENSE NO. DPR-16

GPU NUCLEAR CORPORATION AND JERSEY CENTRAL POWER & LIGHT COMPANY

OYSTER CREEK NUCLEAR GENERATING STATION

DOCKET NO. 50-219

INTRODUCTION

In a letter dated June 30, 1989 GPU Nuclear Corporation (GPUN) has requested revisions to the Technical Specifications for its Oyster Creek Station to distinguish high-range and low-range radioactive noble gas effluent monitors and to add Technical Specifications (TSs) and Limiting Conditions for Operation (LCOs) and surveillance requirements for the high range monitors. Technical Specifications and LCOs for the low-range monitors would not be revised.

EVALUATION

Two Radioactive Gaseous Effluent Monitoring Systems (RAGEMS) are installed at Oyster Creek, one to monitor releases via the main stack (RAGEMSI), and one to monitor releases via the turbine building vents (RAGEMSII). Both RAGEMSI and RAGEMSII incorporate low-range monitors to monitor normal, low level releases, and a high-range monitor, which would measure elevated, accidental releases. TSs for the low-range monitors have been incorporated previously as part of the Radiological Effluent Technical Specifications (RETS) to ensure compliance with the guidelines in 10 CFR Part 50, Appendix I [As Low as Reasonably Achievable (ALARA) guidelines for normal releases].

GPUN proposes to add LCOs and surveillance requirements for the high-range monitors to conform to the NRC staff's guidelines in NUREG-0737, item II.F.1.1. We have reviewed GPUN's proposed TSs and find that they are compatible with the staff's guidelines, considering the station's redundant alternative radiological monitoring capabilities as specified in its emergency plans, e.g., portable monitors, the station's Post Accident Sampling System, Offsite Thermoluminiscent Dosimeter Program, and the NRC's reporting requirements at 10 CFR Part 50.73. We, therefore, find the proposed Technical Specifications acceptable.

ENVIRONMENTAL CONSIDERATION

This amendment changes a requirement with respect to the installation or use of a facility component located within the restricted area as defined in 10 CFR Part 20 and changes surveillance requirements. We have determined that the amendment involves no significant increase in the amounts, and no significant change in the types, of any effluents that may be released offsite, and that there is no significant increase in individual or cumulative occupational radiation exposure. The staff has previously issued a proposed finding that this amendment involves no significant hazards consideration and there has been no public comment on such finding. Accordingly, the amendment meets the eligibility criteria for categorical exclusion set forth in 10 CFR 51.22(c)(9). Pursuant to 10 CFR 51.22(b), no environmental impact statement or environmental assessment need be prepared in connection with the issuance of this amendment.

CONCLUSION

The staff has concluded, based on the considerations discussed above, that (1) there is reasonable assurance that the health and safety of the public will not be endangered by operation in the proposed manner, and (2) such activities will be conducted in compliance with the Commission's regulations, and (3) the issuance of the amendment will not be inimical to the common defense and security nor to the health and safety of the public.

Dated: February 6, 1990

Principal Contributor: J. Martin