Docket Nos. 50-250
and 50-251

MAY 19 1978

DISTRIBUTION
Dockets(2)
NRC PDR(2)
Local PDR
ORB#1 Reading
VStello
AD/OR
ASchwencer
CParrish
MGrotenhuis
OELD
OI&E(5)
BJones(8)
BScharf(15)
JMcGough
BHarless
DEisenhut
ACRS(16)
OPA(CMiles)
TBAbernathy
JRBuchanan

Florida Power and Light Company
ATTN: Dr. Robert E. Uhrig
Vice President
P. O. Box 013100
Miami, Florida 33101

Gentlemen:

The Commission has issued the enclosed Amendment Nos. 35 and 29 to Facility Operating License Nos. DPR-31 and DPR-41 for the Turkey Point Nuclear Generating Unit Nos. 3 and 4. The amendments consist of changes to the Technical Specifications in response to your application dated November 6, 1974, supplemented by letters dated March 22 and May 10, 1976.

These amendments revise the Technical Specifications to establish specifications for safety-related shock suppressors (snubbers). During our review of the proposed request, we found that certain changes were necessary. Your staff agreed to these changes and they have been incorporated.

Copies of the Safety Evaluation and the related Notice of Issuance are also enclosed.

Sincerely,

Original Signed By

A. Schwencer, Chief
Operating Reactors Branch #1
Division of Operating Reactors

Enclosures:
1. Amendment No. 35 to DPR-31
2. Amendment No. 29 to DPR-41
3. Safety Evaluation
4. Notice of Issuance

cc w/enclosures:
See next page

OFFICE	ORB#1	OELD	ORB#1			
x27433:tsb SURNAME	MGrotenhuis	J.R.GRAY for	ASchwencer			
3/30/78 DATE	4/19/78	5/16/78	5/19/78			

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

Docket Nos. 50-250
and 50-251

May 19, 1978

Florida Power and Light Company
ATTN: Dr. Robert E. Uhrig
Vice President
P. O. Box 013100
Miami, Florida 33101

Gentlemen:

The Commission has issued the enclosed Amendment Nos. 35 and 29 to Facility Operating License Nos. DPR-31 and DPR-41 for the Turkey Point Nuclear Generating Unit Nos. 3 and 4. The amendments consist of changes to the Technical Specifications in response to your application dated November 6, 1974, supplemented by letters dated March 22 and May 10, 1976.

These amendments revise the Technical Specifications to establish specifications for safety-related shock suppressors (snubbers). During our review of the proposed request, we found that certain changes were necessary. Your staff agreed to these changes and they have been incorporated.

Copies of the Safety Evaluation and the related Notice of Issuance are also enclosed.

Sincerely,

Marshall Grotenhuis

for A. Schwencer, Chief
Operating Reactors Branch #1
Division of Operating Reactors

Enclosures:
1. Amendment No. 35 to DPR-31
2. Amendment No. 29 to DPR-41
3. Safety Evaluation
4. Notice of Issuance

cc w/enclosures:
See next page

cc: Mr. Robert Lowenstein, Esquire
Lowenstein, Newman, Reis & Axelrad
1025 Connecticut Avenue, NW
Suite 1214
Washington, D.C. 20036

Environmental & Urban Affairs Library
Florida International University
Miami, Florida 33199

Mr. Norman A. Coll, Esquire
Steel, Hector and Davis
1400 Southeast First National
Bank Building
Miami, Florida 33131

Florida Power & Light Company
ATTN: Mr. Henry Yaeger
Plant Manager
Turkey Point Plant
P. O. Box 013100
Miami, Florida 33101

Honorable Dewey Knight
County Manager of Metropoligan
Dade County
Miami, Florida 33130

Bureau of Intergovernmental
Relations
660 Apalachee Parkway
Tallahassee, Florida 32304

Chief, Energy Systems
Analyses Branch (AW-459)
Office of Radiation Programs
U.S.Environmental Protection Agency
Room 645, East Tower
401 M Street, SW
Washington, D.C.

U.S. Environmental Protection Agency
Region VI Office
ATTN: EIS COORDINATOR
345 Courtland Street, NW
Atlanta, Georgia 30308

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

FLORIDA POWER AND LIGHT COMPANY

DOCKET NO. 50-250

TURKEY POINT NUCLEAR GENERATING UNIT NO. 3

AMENDMENT TO FACILITY OPERATING LICENSE

Amendment No. 35
License No. DPR-31

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

   A. The application for amendment by Florida Power and Light Company (the licensee) dated November 6, 1974, as supplemented by letters dated March 22 and May 10, 1976, 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-31 is hereby amended to read as follows:

(2) Technical Specifications

The Technical Specifications contained in Appendices A and B, as revised through Amendment No. 35, 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

Marshall Grotenhuis

for A. Schwencer, Chief
Operating Reactors Branch #1
Division of Operating Reactors

Attachment:
Changes to the Technical
Specifications

Date of Issuance: May 19, 1978

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

FLORIDA POWER AND LIGHT COMPANY

DOCKET NO. 50-251

TURKEY POINT NUCLEAR GENERATING UNIT NO. 4

AMENDMENT TO FACILITY OPERATING LICENSE

Amendment No. 29
License No. DPR-41

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

   A. The application for amendment by Florida Power and Light Company (the licensee) dated November 6, 1974, as supplemented by letters dated March 22 and May 10, 1976, 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-41 is hereby amended to read as follows:

(2) Technical Specifications

The Technical Specifications contained in Appendices A and B, as revised through Amendment No. 29, 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

Marshall Grotenhuis for

A. Schwencer, Chief
Operating Reactors Branch #1
Division of Operating Reactors

Attachment:
Changes to the Technical
Specifications

Date of Issuance: May 19, 1978

ATTACHMENT TO LICENSE AMENDMENTS

AMENDMENT NO. 35 TO FACILITY OPERATING LICENSE NO. DPR-31

AMENDMENT NO. 29 TO FACILITY OPERATING LICENSE NO. DPR-41

DOCKET NOS. 50-250 AND 50-251

Revise Appendix A as follows:

Remove the following pages and replace with identically numbered pages.

ii
iii
iv

Add the following new pages.

3.13-1
Table 3.13-1
4.14-1
4.14-2
B3.13-1
B3.13-2
B4.14-1

TABLE OF CONTENTS (Continued)

LIST OF TABLES

3.13 SHOCK SUPPRESSORS (SNUBBERS)

Applicability: Applies to the operational status of safety-related pipe restraints (snubbers).

Objective: To define the limiting conditions for operation applied to the operability of safety-related snubbers.

Specification:

1. During all modes of operation except Cold Shutdown and Refueling Shutdown, all (safety-related) snubbers listed in Table 3.13-1 shall be operable except as noted in 3.13.2 through 3.13.4 below.

2. From the time that a snubber is determined to be inoperable, continued reactor operation is permissible only during the succeeding 72 hours unless the snubber is sooner made operable or replaced with an operable snubber.

3. If the requirements of 3.13.1 and 3.13.2 cannot be met, an orderly shutdown shall be initiated and the reactor shall be in a cold shutdown condition within 36 hours.

4. If a hydraulic snubber is determined to be inoperable while the reactor is in the cold shutdown mode or the refueling mode, the snubber shall be made operable or replaced with an operable snubber prior to reactor startup.

5. Snubbers may be added to Table 3.13-1 without prior license amendment provided that a revision to Table 3.13-1 is included with a license amendment request within 60 days.

TABLE 3.13-1 SHEET 1

SAFETY RELATED SNUBBERS - UNIT 3

FPL Tag No.	System	Approximate Elevation (feet)	Snubbers in High Radiation Areas During Shutdown*	Snubbers Especially Difficult to Remove	Snubbers Inaccessible During Normal Operation	Snubbers Accessible During Normal Operation
1	Charging	14	X		X	
2	Pressurizer Spray	14	X		X	
3	Pressurizer Spray	14	X		X	
4	Pressurizer Spray	14	X		X	
5	Pressurizer Spray	14	X		X	
6	Pressurizer Spray	14	X		X	
7	Pressurizer Spray	14	X		X	
8	Pressurizer Spray	14	X		X	
9	Pressurizer Spray	14	X		X	
10	Pressurizer Spray	14	X		X	
11	Pressurizer Spray	14	X		X	
12	Pressurizer Spray	14	X		X	
13	Pressurizer Spray	14	X		X	
14	Pressurizer Relief	74½	X		X	
15	Pressurizer Relief	74½	X		X	
16	Pressurizer Relief	74½	X		X	
17	Pressurizer Relief	73	X		X	
18	Pressurizer Spray	73	X		X	
19	Pressurizer Spray	73	X		X	
20	Pressurizer Spray	73	X		X	
21	Pressurizer Spray	73	X		X	
22	Pressurizer Spray	73	X		X	
23	Pressurizer Spray	73	X		X	

SAFETY RELATED SNUBBERS - UNIT 3

FPL ag No.	System	Approximate Elevation (feet)	Snubbers in High Radiation Areas During Shutdown*	Snubbers Especially Difficult to Remove	Snubbers Inaccessible During Normal Operation	Snubbers Accessible During Normal Operation
24	Pressurizer Relief	73	X		X	
25	Pressurizer Relief	73	X		X	
26	Pressurizer Spray	73	X		X	
27	Pressurizer Spray	73	X		X	
28	Pressurizer Spray	73	X		X	
29	Pressurizer Sprayq	73	X		X	
30	Pressurizer Relief	73	X		X	
31	Pressurizer Relief	73	X		X	
38	Residual Heat Removal	2	X			X
39	Residual Heat Removal	2	X			X
40	Residual Heat Removal	2	X			X
41	Residual Heat Removal	2	X			X
42	Safety Injection	12	X			X
43	Residual Heat Removal	12				X
44	Safety Injection	12				X
45	Safety Injection	12				X
46	Steam to Aux. Feedwater	26				X
47	Steam to Aux. Feedwater	26				X
48	Steam to Aux. Feedwater	26				X
49	Steam to Aux. Feedwater	30½				X
50	Main Steam	32				X
51	Main Steam	32				X

SAFETY RELATED SNUBBERS - UNIT 3

FPL Tag No.	System	Approximate Elevation (feet)	Snubbers in High Radiation Areas During Shutdown*	Snubbers Especially Difficult to Remove	Snubbers Inaccessible During Normal Operation	Snubbers Accessible During Normal Operation
60	Main Steam	32				X
61	Main Steam	32				X
75	Main Steam	32				X
76	Main Steam	32				X
77	Main Steam	32				X
78	Main Steam	32				X
78	Main Steam	32				X
79	Feedwater	58			X	
80	Feedwater	58			X	
81	Feedwater	56		X	X	
82	Feedwater	52		X	X	
83	Feedwater	52		X	X	
84	Feedwater	58			X	
85	Feedwater	55		X	X	
86	Feedwater	55		X	X	
87	Feedwater	56		X	X	
88	Feedwater	58			X	
89	Feedwater	56		X	X	
90	Feedwater	58			X	
91	Feedwater	55		X	X	

SAFETY RELATED SNUBBERS - UNIT 4

FPL Tag No.	System	Approximate Elevation (feet)	Snubbers in High Radiation Areas During Shutdown*	Snubbers Especially Difficult to Remove	Snubbers Inaccessible During Normal Operation	Snubbers Accessible During Normal Operation
6	Feedwater	30			X	
7	Feedwater	30			X	
8	Pressurizer Spray	14	X		X	
9	Pressurizer Spray	14	X		X	
10	Pressurizer Spray	14	X		X	
11	Pressurizer Spray	14	X		X	
12	Pressurizer Spray	14	X		X	
13	Pressurizer Spray	14	X		X	
14	Pressurizer Spray	14	X		X	
15	Pressurizer Spray	14	X		X	
16	Pressurizer Spray	14	X		X	
17	Charging	14	X		X	
18	Feedwater	58			X	
19	Feedwater	58			X	
20	Feedwater	58			X	
21	Feedwater	58			X	
22	Feedwater	58			X	
23	Feedwater	58			X	
24	Pressurizer Relief	73	X		X	
25	Pressurizer Relief	73	X		X	
26	Pressurizer Relief	73	X		X	
27	Pressurizer Relief	73	X		X	

SAFETY RELATED SNUBBERS - UNIT 4

FPL Tag No.	System	Approximate Elevation (feet)	Snubbers in High Radiation Areas During Shutdown*	Snubbers Especially Difficult to Remove	Snubbers Inaccessible During Normal Operation	Snubbers Accessible During Normal Operation
28	Pressurizer Relief	73	X		X	
29	Pressurizer Spray	73	X		X	
30	Pressurizer Spray	73	X		X	
31	Pressurizer Relief	73	X		X	
32	Pressurizer Relief	73	X		X	
34	Pressurizer Spray	73	X		X	
35	Pressurizer Spray	73	X		X	
36	Pressurizer Spray	73	X		X	
37	Pressurizer Spray	73	X		X	
38	Pressurizer Spray	73	X		X	
39	Pressurizer Spray	73	X		X	
40	Pressurizer Spray	73	X		X	
41	Pressurizer Spray	73	X		X	
42	Pressurizer Relief	73	X		X	
43	Pressurizer Spray	14	X		X	
44	Pressurizer Spray	14	X		X	
45	Pressurizer Spray	14	X		X	
46	Pressurizer Spray	14	X		X	
47	Pressurizer Spray	14	X		X	
48	Pressurizer Spray	14	X		X	
49	Residual Heat Removal	2	X			X
50	Residual Heat Removal	2	X			X

TABLE 3.13-1 SHEET 6

SAFETY RELATED SNUBBERS - UNIT 4

FPL ag No.	System	Approximate Elevation (feet)	Snubbers in High Radiation Areas During Shutdown*	Snubbers Especially Difficult to Remove	Snubbers Inaccessible During Normal Operation	Snubbers Accessible During Normal Operation
51	Residual Heat Removal	2	X			X
52	Residual Heat Removal	2	X			X
53	Residual Heat Removal	2	X			X
54	Safety Injection	12				X
55	Safety Injection	12				X
57	Main Steam	32				X
58	Main Steam	32				X
59	Main Steam	32				X
60	Main Steam	32				X
80	Feedwater	56		X	X	
81	Feedwater	56		X	X	
82	Feedwater	56		X	X	
83	Main Steam	32				X
84	Main Steam	32				X
85	Main Steam	32				X
86	Main Steam	32				X

*Modifications to this table due to changes in high radiation areas should be submitted to the NRC as part of a license amendment within 60 days.

4.14 SHOCK SUPPRESSORS (SNUBBERS)

Applicability: Applies to periodic surveillance of safety-related shock suppressors (snubbers).

Objective: To verify operability of safety-related shock suppressors listed in Table 3.13-1.

Specification: 1. All safety-related hydraulic snubbers whose seal material has been demonstrated by operating experience, laboratory testing, or laboratory analysis to be compatible with the operating environment shall be visually inspected to verify snubber operability. This inspection shall include, but not necessarily be limited to, inspection of the hydraulic fluid reservoir, fluid connections, and linkage connections to the piping and anchor. The inspections shall be conducted in accordance with the schedule described below. Early inspections as defined in the bases are permitted but may not be used to extend the required interval set by the previous regularly scheduled inspection.

Number of Snubbers Found Inoperable During Inspection or During Inspection Interval	Next Required Inspection Interval
0	18 months ± 25%
1	12 months ± 25%
2	6 months ± 25%
3,4	124 days ± 25%
5,6,7	62 days ± 25%
≥8	31 days ± 25%

The required inspection interval shall not be lengthened more than one step at a time.

Snubbers may be categorized in two groups, "accessible" or "inaccessible" based on their accessibility for inspection during reactor operation. These two groups may be inspected independently according to the above schedule. In addition, snubbers inside containment may be inspected independently from those outside containment in order to prevent unnecessary containment entries caused by inoperable snubbers found outside containment during power operation.

2. All hydraulic snubbers whose seal materials are other than ethylene propylene or other material that has been demonstrated to be compatible with the operating environment shall be visually inspected for operability every 31 days.
3. The initial inspection of shock suppressors shall be performed within 6 months from the date of issuance of these specifications. For the purpose of entering the schedule in Specification 4.14.1, it shall be assumed that the facility had been on a 6 month inspection interval.

4. Once each refueling cycle, but at least once each 18 months a representative sample of 10 hydraulic snubbers or approximately 10% of the hydraulic snubbers, whichever is less, shall be functionally tested for operability including verification of proper piston movement, lock up, and bleed. For each unit and subsequent unit found inoperable, an additional 10% or ten snubbers shall be so tested until no more failures are found or all units have been tested.

5. All safety related mechanical snubbers shall be visually examined once each refueling cycle but at least once each 18 months for evidence of inoperability.

B3.13 BASES FOR LIMITING CONDITIONS FOR OPERATION, HYDRAULIC SNUBBERS

Snubbers are designed to prevent unrestrained pipe motion under dynamic loads which might occur during an earthquake or severe transient, while allowing normal thermal motion during startup and shutdown. The consequence of an inoperable snubber is an increase in the probability of structural damage to piping as a result of dynamic loads initiated by seismic or other events. Therefore, all hydraulic snubbers required to protect the reactor coolant system or any other safety system or component are required to be operable during reactor operation.

Because snubber protection is required only during low probability events, a period of 72 hours is allowed for repairs or replacements. In case a shutdown is required, the allowance of 36 hours to reach a cold shutdown condition will permit an orderly shutdown consistent with standard operating procedures. Since plant startup should not commence with known defective safety related equipment, Specification 3.13.4 prohibits startup with inoperable snubbers.

All safety related hydraulic snubbers are visually inspected for overall integrity and operability. The inspection will include verification of proper orientation, adequate hydraulic fluid level, and proper attachment of snubber to piping and structures.

The inspection frequency is based upon maintaining a constant level of snubber protection. Thus the required inspection interval varies inversely with the observed snubber failures. The number of inoperable snubbers found during a required inspection determines the time interval before the next inspection is required. Inspections performed before the minimum interval (nominal time less 25%) has elapsed may be used as a new reference point to determine when the next inspection is required. However, the results of early inspections performed before the original required time interval has elapsed may not be used to lengthen the required inspection interval. Any inspection whose results require a shorter inspection interval will override the previous schedule.

Experience at operating facilities has shown that the required surveillance program should assure an acceptable level of snubber performance provided that the seal materials are compatible with the operating environment.

Snubbers containing seal material which has not been demonstrated by operating experience, lab tests, or lab analysis to be compatible with the operating environment should be inspected more frequently (every month) until material compatibility is confirmed or an appropriate changeout is completed.

Examination of defective snubbers at reactor facilities and material tests performed at several laboratories (Reference 1) has shown that millable gum polyurethane deteriorates rapidly under the temperature and moisture conditions present in many snubber locations. Although molded polyurethane exhibits greater resistance to these conditions, it also may be unsuitable for application in the higher temperature environments. Data are not currently available to precisely define an upper temperature limit for the molded polyurethane. Lab tests and in-plant experience indicate that seal materials are available, primarily ethylene propylene compounds, which should give satisfactory performance under the most severe conditions expected in reactor installations.

To further increase the assurance of snubber reliability, functional tests should be performed once each refueling cycle. These tests will include stroking of the snubbers to verify proper piston movement, lock-up, and bleed. Ten percent or ten snubbers, whichever is less, represents an adequate sample for such tests. Observed failures on these samples should require testing of additional units. Those snubbers designated in Table 3.13-1 as being in high radiation areas or especially difficult to remove need not be selected for functional tests provided operability was previously verified. Snubbers of rated capacity greater than 30,000 lb are exempt from the functional testing requirements because of the impracticability of testing such large units. Since functional tests could be performed at different times in successive refueling cycles or the cycles themselves be of varying lengths, a maximum period of 18 months between successive tests has been specified.

Reference 1
Report H. R. Erickson, Bergen Patterson to K. R. Goller, NRC, October 7, 1974
Subject: Hydraulic Shock Sway Arrestors

B4.14 BASES FOR HYDRAULIC SNUBBERS

The bases for specification 4.14 are the same as for specification 3.13.

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

SAFETY EVALUATION BY THE OFFICE OF NUCLEAR REACTOR REGULATION

SUPPORTING AMENDMENT NOS. 35 AND 29 TO LICENSE NOS. DPR-31 AND DPR-41

FLORIDA POWER AND LIGHT COMPANY

TURKEY POINT NUCLEAR GENERATING UNIT NOS. 3 AND 4

DOCKET NOS. 50-250 AND 50-251

Introduction

By application dated November 6, 1974, supplemented by letters dated March 22 and May 10, 1976, the Florida Power and Light Company (FPL) requested amendments to Operating License Nos. DPR-31 and DPR-41 for Turkey Point Plant Unit Nos. 3 and 4. The application is in support of a request to establish specifications for safety-related shock suppressors (snubbers).

Discussion

During the summer of 1973 a significant number of shock suppressors (snubbers) were found to be inoperable at many reactor facilities. The failures were caused by degradation of seal materials and subsequent leakage of hydraulic fluid. A seal replacement program had been implemented which significantly reduced the incidence of snubber failure. However, failures continued to occur.

Our review of snubber experience at reactor facilities concluded that revised Technical Specifications requiring snubber operability and surveillance were needed. On December 24, 1975, we forwarded to FPL model Technical Specifications and bases which would serve to provide additional assurance of satisfactory snubber performance and reliability for the Turkey Point Nuclear Generating Unit Nos. 3 and 4. During our review of the proposed specifications, we found that certain modifications were necessary. These modifications were discussed with FPL and have been incorporated into the proposed Technical Specifications.

Evaluation

Snubbers are designed to prevent unrestrained pipe motion under dynamic loads as might occur during an earthquake or severe transient while allowing normal thermal movement during startup and shutdown. The consequence of an inoperable snubber is an increase in the probability of structural damage to piping resulting from a seismic or other postulated event which initiates dynamic loads. It is, therefore, necessary that snubbers installed to protect safety system piping be operable during reactor operation and be inspected at appropriate intervals to assure their operability.

Examination of defective snubbers at reactor facilities has shown that the high incidence of failures observed in the summer of 1973 was caused by severe degradation of seal materials and subsequent leakage of the hydraulic fluid. The basic seal materials used in Bergen Paterson snubbers were two types of polyurethane; a millable gum polyester type containing plasticizers and an unadulterated molded type. Material tests performed at several laboratories (Reference 1) established that the millable gum polyurethane deteriorated rapidly under the temperature and moisture conditions present in many snubber locations. Although the molded polyurethane exhibited greater resistance to these conditions, it also may be unsuitable for application in the higher temperature environments. Data are not currently available to precisely define an upper temperature limit for the molded polyurethane. The investigation indicated that seal materials are available, primarily ethylene propylene compounds, which should give satisfactory performance under the most severe conditions expected in reactor installations.

An extensive seal replacement program has been carried out at many reactor facilities. Experience with ethylene propylene seals has been very good with no serious degradation reported thus far. Although the seal replacement program has significantly reduced the incidence of snubber failures, some failures continue to occur. These failures have generally been attributed to faulty snubber assembly and installation, loose fittings and connections and excessive pipe vibrations. The failures have been observed in both PWRs and BWRs and have not been limited to units manufactured by Bergen Paterson. Because of the continued incidence of snubber failures, we have concluded that snubber operability and surveillance requirements should be incorporated into the Technical Specifications. We have further concluded that these requirements should be applied to all safety related snubbers, regardless of manufacturer, in all light water cooled reactor facilities.

(1) Robert H. R. Erickson, Bergen Paterson to K. R. Goller, NRC, October 7, 1974, Subject: Hydraulic Shock Sway Arrestors

The proposed Technical Specifications and Bases provide additional assurance of satisfactory snubber performance and reliability. The specifications require that snubbers be operable during reactor operation and prior to startup. Because snubber protection is required only during low probability events, a period of 72 hours is allowed for repair or replacement of defective units before the reactor must be shut down. The licensee will be expected to commence repair or replacement of a failed snubber expeditiously. However, the allowance of 72 hours is consistent with that provided for other safety-related equipment and provides for remedial action to be taken in accordance with 10 CFR 50.36(c)(2). Failure of a pipe, piping system or major component would not necessarily result from the failure of a single snubber to operate as designed, and even a snubber devoid of hydraulic fluid would provide support for the pipe or component and reduce pipe motion. The likelihood of a seismic event or other initiating event occurring during the time allowed for repair or replacement is very small. Considering the large size and difficult access of some snubber units, repair or replacement in a shorter time period is not practical. Therefore, the 72 hour period provides a reasonable and realistic period for remedial action to be taken.

An inspection program is specified to provide additional assurance of maintaining a constant level of snubber protection; thus, the required inspection interval varies inversely with the observed snubber failures. The longest inspection interval allowed in the Technical Specifications after a record of no snubber failures has been established is nominally 18 months. Experience at operating facilities has shown that the required surveillance program should provide an acceptable level of snubber performance provided that the seal materials are compatible with the operating environment. Snubbers containing seal material which has not been demonstrated to be compatible with the operating environment are required to be inspected every 31 days until the compatibility is established or an appropriate seal change is completed.

To further increase the level of snubber reliability, the proposed Technical Specifications require functional tests once each refueling cycle but with no more than 18 months between successive tests. These periodic tests will verify proper piston movement, lock up and bleed.

We have concluded that the proposed Technical Specifications, as modified, increase the probability of successful snubber performance, and increase reactor safety. We therefore find them acceptable.

Environmental Consideration

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

Conclusion

We have concluded, based on the considerations discussed above, that: (1) because the amendments do not involve a significant increase in the probability or consequences of accidents previously considered and do not involve a significant decrease in a safety margin, the amendments do not involve a significant hazards consideration, (2) there is reasonable assurance that the health and safety of the public will not be endangered by operation in the proposed manner, and (3) such activities will be conducted in compliance with the Commission's regulations and the issuance of these amendments will not be inimical to the common defense and security or to the health and safety of the public.

Dated: May 19, 1978

UNITED STATES NUCLEAR REGULATORY COMMISSION

DOCKET NOS. 50-250 AND 50-251

FLORIDA POWER AND LIGHT COMPANY

NOTICE OF ISSUANCE OF AMENDMENTS TO FACILITY OPERATING LICENSES

The U. S. Nuclear Regulatory Commission (the Commission) has issued Amendment Nos. 35and 29 to Facility Operating License Nos. DPR-31 and DPR-41, respectively, issued to Florida Power and Light Company which revised Technical Specifications for operation of the Turkey Point Nuclear Generating Unit Nos. 3 and 4, located in Dade County, Florida. The amendments are effective as of the date of issuance.

The amendments revise the Technical Specifications to establish specifications for safety-related shock suppressors (snubbers).

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 these amendments was not required since the amendments do not involve a significant hazards consideration.

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

For further details with respect to this action, see (1) the application for amendments dated November 6, 1974, as supplemented by letters dated March 22 and May 10, 1976, (2) Amendment Nos. 35 and 29 to License Nos. DPR-31 and DPR-41 and (3) the Commission's related Safety Evaluation. All of these items are available for public inspection at the Commission's Public Document Room, 1717 H Street, NW, Washington, DC and at the Environmental & Urban Affairs Library, Florida International University, Miami, Florida 33199. A copy of items (2) and (3) may be obtained upon request addressed to the U. S. Nuclear Regulatory Commission, Washington, DC 20555, Attention: Director, Division of Operating Reactors.

Dated at Bethesda, Maryland this 19th day of May 1978.

FOR THE NUCLEAR REGULATORY COMMISSION

Marshall Grotenhuis

Marshall Grotenhuis, Acting Chief
Operating Reactors Branch #1
Division of Operating Reactors