

UNITED STATES OF AMERICA
NUCLEAR REGULATORY COMMISSION

BEFORE THE ATOMIC SAFETY AND LICENSING BOARD

In the Matter of)	Docket Nos. 50-250-SP
)	50-251-SP
FLORIDA POWER & LIGHT COMPANY)	
(Turkey Point Nuclear)	(Proposed Amendments to
Generating Unit Nos. 3)	Facility Operating License
and .4))	to Permit Steam Generator
)	Repairs)

AFFIDAVIT OF F. G. FLUGGER AND
H. H. JABALI AND P. K. WAN
ON CONTENTION 4B

My name is Frederick G. Flugger. My business address is P.O. Box 529100, Miami, Florida, 33152. I am Manager of Plant Engineering Licensing, Power Plant Engineering Department, Florida Power & Light Company (FPL or Licensee). A statement of my professional background and qualifications has been previously provided by "Affidavit of Frederick G. Flugger and H. H. Jabali on Contention 4A" (hereinafter referred to as Licensee's 4A Affidavit), which was attached to "Licensee's Answer Supporting NRC Staff Motion for Summary Disposition of Contention 4A" (April 17, 1981).

My name is Habib H. Jabali. My business address is P.O. Box 529100, Miami, Florida, 33152. I am Manager of Civil Engineering, Power Plant Engineering Department, Florida Power & Light Company. A statement of my professional background and qualifications has been previously provided by Licensee's 4A Affidavit.

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My name is Ping K. Wan. My business address is 15740 Shady Grove Road, Gaithersburg, Maryland, 20760. I am Environmental Sciences Section Supervisor, Environmental Engineering, Bechtel Power Corporation. A statement of my professional background and qualifications is attached to this affidavit and made a part thereof.

We are familiar with the aspects of FPL's plans for the proposed repair of the steam generator lower assemblies (SGLAs) and storage thereof as they relate to this affidavit.

This affidavit addresses Contention 4B which states:

There are likely to occur radioactive releases, (from the steam generator repair) to unrestricted areas which violate 10 CFR Part 20 or are not as low as reasonably achievable within the meaning of 10 CFR Part 50 as a result of a hurricane or tornado striking the site during the repairs.

Additionally this affidavit addresses the question whether some undue risk to public health and safety would result should the proposed steam generator repair activities be conducted during the hurricane season. The Board in its 23 February 1981 "Order Accepting Negotiated Schedule" states:

The Board has also considered the matters set forth in the Intervenor's letter of February 18, 1981 and notes an apparent conflict between the statements of FPL and the intervenor with regard to the timing of the hurricane season. Consequently, the Board puts the parties on notice that it intends to hear evidence on the repair schedule as it relates to the timing of the hurricane season.



The Intervenor's letter referenced by the Board states:

We would further point out that Florida Power & Light has chosen October to begin their repairs with full knowledge that that is the height of the hurricane season and probably is the most dangerous time within which to commence the repairs.

To be responsive to the Board and Intervenor's concern this affidavit addresses the timing of the hurricane season.

The "NRC Staff Objections to Proposed Amended Contention 1 and Third Motion for Summary Disposition" moved, among other things, for the summary disposition of Contention 4B. There was included in the motion a "Statement of Material Facts as to Which There Are No Genuine Issues to be Heard" (variously hereafter "Statement of Material Facts" or "Staff's material facts"), and an "Affidavit of Robert F. Abbey, Jr. on Contention 4B" (hereafter "Abbey Affidavit"). We have read and agree with the Staff's material facts relevant to the motion for summary disposition, Nos. 7 to 12, and with the Abbey Affidavit. This affidavit provides the bases for our concurrence with those documents and provides additional support of the conclusions reached therein.

In a manner consistent with Licensee's 4A Affidavit, a radioactive release is hereinafter postulated for purposes of analysis and evaluated to demonstrate that this hypothetical release of radioactivity can only result in inconsequential exposures to members of the public. Or stated differently,



there is no radiation hazard to unrestricted areas associated with the proposed repair activity. The SGLA drop accident is utilized for this evaluation since it is the limiting, i.e., worst case accident scenario that can be associated with the interaction of a hurricane or tornado and the Turkey Point site during the proposed repair activity.

The discussion hereinafter will also demonstrate that consideration of tornadic and hurricane conditions does not influence the manner in which the proposed activity is to be implemented. Licensee's proposed repair activity may be conducted at any time of the year.

The Hurricane Season

We concur with Staff's material fact No. 7 as it relates to the hurricane season. "The 'official' Atlantic hurricane season extends from June 1 through November 30." See reference 1 of Abbey Affidavit, p. 20. However, the season occasionally begins or ends outside of this period. Considering the date of detection of the first tropical storm and the date of dissipation of the last storm from 1886 through 1977, the median beginning date of the hurricane season is June 26, and the median ending date is October 29. Less than 20% of the hurricane seasons since 1886 have begun in early June or before, and over 90% of the hurricane seasons have concluded by late November.



Historical data clearly shows that the hurricane season is in fact concentrated in the period from mid-August to late October with a maximum frequency of occurrence localized in the period from late August to mid-September. The frequency of occurrence of hurricanes at the actual peak of the season in mid-September is nearly 10 times greater than the frequency of occurrence in late October. See reference 1 of Abbey Affidavit.

The Peninsular Florida Tornado

Staff's material fact No. 7 states that the "chance of a tornado occurrence is remote." We concur, but believe it is more precise to state that the occurrence of a "severe" tornado is remote. In fact, as shown below, both theoretical considerations and historical data demonstrate that severe tornadic events are not expected to occur at the Turkey Point site.

Before proceeding further, it must be noted that consistent and reliable measurements of tornadic wind speeds are not available. Because of the difficulty of obtaining actual wind speed measurements, the maximum wind speed associated with tornadoes is usually estimated on the basis of examination of damage and displaced objects, by motion picture records when available, or by theoretical estimates. Different tornado intensification rating scales have been developed to classify tornadoes based on their observed effects. The intensity classification scales utilize ranges of wind speed. The substantial breadth of these ranges reflects the difficulty



in correlating damage to the wind speed that actually produced the observed damage. The Fujita "F" scale is probably used most frequently. However, other scales have also been developed. See Table 1, which sets out the wind speed classifications used in the Fujita scale and the scale used by Dames & Moore in the Second Study referred to below.

Independent researchers evaluating the same tornado may reach slightly different wind speed estimates based on their subjective judgment of observed damage and the intensity classification scheme utilized. The Abbey Affidavit (para 3b) and the two studies discussed below provide three independent studies of Florida tornadoes. The conclusions reached are essentially the same.

It is relevant to this discussion that the center of maximum tornado activity in the United States is in the Great Plains States such as Iowa, Missouri, Kansas and Oklahoma. The uniquely high frequency of severe tornadoes in the Great Plains and central United States is due to the relative location of the Rocky Mountains and the Gulf of Mexico. The eastward-moving Pacific air mass is dried and cooled as it passes over the Rockies, it can then interact with the moist Gulf air mass, and if conditions favorable to the creation of tornadoes exist, which typically occur in the spring and early summer, a tornado may be created. Since this is a mid-latitude effect that occurs north of peninsular



Florida, the meteorological conclusion is that peninsular Florida should not be subjected to the occurrence of severe tornadoes. As shown below the historical record supports this conclusion.

"A Comparative Study of Florida's Most Severe Tornadoes with Those in Other Parts of the Continental U.S." evaluated the historical data associated with 429 peninsular Florida tornadoes that occurred from 1887 to 1968. (See Appendix 2C to the St. Lucie Unit 1, Docket No. 50-335, Final Safety Analysis Report.) Significant conclusions reached by this study are:

1. "The average tornado in Florida is of minimal intensity, barely able to unroof relatively old wooden farm buildings, packing houses and garages, and/or to defoliate, defruit or blow down trees." (P. 2C-12).
2. "No direct measurement of windspeed has been made in a Florida tornado. Indirect calculations have not been presented herein because speeds on the order of 150 to 200 mph could have produced all the damage that has been photographed and tabulated for Florida tornadoes." Id.
3. "From the standpoint of damage, photographs in Florida do not show buildings being swept clean to the ground and debris carried away as in the most severe continental tornadoes." (P. 2C-16).



4. " . . . key ingredients for severe tornadoes such as air-mass structure, jet maxima, vorticity advection, and dry air intrusion, have always been missing in varying degrees in Florida tornadoes. This is a result of Florida's southern latitude and its marine environment." (P. 2C-19).

A second study of Florida tornadoes evaluated all tornadoes that occurred within 4 miles of the Florida Atlantic Coast from 1950 to 1972. (See Appendix 2F to the St. Lucie 1, Docket No. 50-335, Final Safety Analysis Report.) The upper wind speed estimated for the tornadoes occurring during this 22 year period was 180 mph.

Thus, two independent studies of peninsular Florida tornadoes covering the 85 year historical record from 1887 to 1972 reach the same conclusion, namely, maximum wind speeds associated with peninsular Florida tornadoes are not likely to exceed 200 mph. This is to be expected since the meteorological considerations provided above indicated that the conditions required for the formation of severe tornadoes exist in the mid-latitudes, north of peninsular Florida.

The Abbey Affidavit (para. 4), which apparently utilizes the Fujita intensity scale, places one tornado in category 4 (F4), i.e., 207 to 260 mph. The two studies referred to above conclude that all observed damage could have been produced by winds that did not exceed 200 mph. The conclusion to be



drawn from these three studies is that Abbey's tornado was a marginal Fujita F4 and that tornadoes with intensities about 200 mph represent an upper limit of severity for tornadoes that should be associated with the Turkey Point site.

Based on the 85 year historical record of peninsular Florida tornadoes discussed above, it is obvious that the probability of occurrence of a severe tornado anywhere in peninsular Florida is extremely small. Using the methodology and results of the 1950 to 1972 Florida Atlantic Coast study discussed above, the probability of a tornado with 200 mph winds occurring in peninsular Florida is 1.6×10^{-6} per year.

The same study concludes that the probability of a tornado with wind speeds of 242 mph is 1.0×10^{-7} per year.

The probabilities of tornadoes achieving maximum wind speeds of 200 mph and 242 mph predicted from the Florida Atlantic Coast study are in close agreement with the probability estimates provided by Table 1 of the Abbey Affidavit. It is therefore concluded that the probability of achieving severe tornadic conditions at the Turkey Point site, i.e., about 200 mph, predicted both by the Abbey Affidavit and this Affidavit, is exceedingly small.

The overriding conclusion to be derived from the discussion of tornadoes indigenous to peninsular Florida is that the wind speeds associated with a real-world peninsular Florida tornado are not likely to be more severe than those associated

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with the probable maximum hurricane (PMH) evaluated in Licensee's 4A Affidavit.

Hurricane/Tornado Evaluation of Repair Activity

The Staff's material facts Nos. 8 and 9 demonstrate that the potential physical interaction of a hurricane or tornado with the SGLAs is acceptable. We concur with this conclusion.

The discussion provided below provides the basis for our support of these Staff material facts and provides supportive data in addition to that provided by the Staff.

The proposed steam generator repair for Unit 4 is currently scheduled to begin in late October, 1981. The repair for Unit 3 is scheduled to begin in late October, 1982.

Performance of the repairs outside the hurricane season obviously reduces the likelihood of any inconvenience that might be associated with a hurricane. However, the current schedule is not based on the timing of the hurricane season, nor was it adopted so that the repairs will be made during a period with a low probability for the occurrence of tornadoes. These severe meteorological events in no way alter the acceptability of the repair activity. The discussion below demonstrates this.

The physical work associated with the removal and replacement of the SGLAs will occur in the reactor building, which is designed to accommodate both tornadoes and the PMH. Prior to

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commencement of these activities the nuclear fuel will be removed from the reactor building and placed in the spent fuel complex, which is a structure independent of the reactor building that is also designed to accommodate both tornadoes and the PMH.

There is no incident within containment associated with the repair activity that could adversely interact with the stored nuclear fuel. Also, assuming that a hurricane or tornado-borne missile could enter the reactor building via the open equipment hatch, there is no way that the missile could interact with the stored nuclear fuel or cause an accident not previously evaluated. Thus during the portion of the repair activity conducted within containment, consideration of the occurrence of a hurricane or tornado does not alter in any way the safety evaluations and conclusions reached by FPL and the NRC Staff.

As an SGLA is removed from the reactor building, steel support saddles will be affixed to the SGLA. The SGLA may then be relocated to a temporary laydown area at elevation +17.5' MLW or it may be placed in the SGSC.

If it is assumed that the SGLAs are placed at a temporary laydown area on the +17.5' MLW plateau, and based on the current design of the SGLA steel support saddles, a wind speed of about 600 mph would be required to overcome the frictional forces associated with this 185 ton object, i.e., to begin to slide an SGLA. Obviously neither tornadic nor PMH winds are



sufficient to move an SGLA temporarily located in an open unprotected area.

Consider the effects of a severe tornado that could conceivably strike the Turkey Point site, i.e., a tornado with winds in the order of 200 mph. About one inch of steel would be sufficient to prevent penetration of an SGLA by a tornado-borne missile that may be associated with this tornado. Since the SGLAs have a minimum wall thickness of about 2.6 inches, SGLA penetration by tornado-borne missiles while located temporarily in an open unprotected area is not likely.

Turning to the effects of a PMH, in Licensee's 4A Affidavit, FPL concurred with the NRC Staff's material facts that relate to PMH effects on the SGSC. The same conclusions apply to temporary laydown of the SGLAs at elevation +17.5' MLW.

During a PMH, the still water level on the +17.5' MLW plain, would be less than one foot and hurricane force waves would break on the 3/1 slopes, which would be well removed from any SGLA temporary laydown area that would be utilized. Thus, the SGLA steel support saddles would be partially immersed, and the SGLAs would be subjected to salt spray and minimal wave action by waves of less than one foot from crest to trough. The SGLAs would get wet, but will remain in their temporary location.



In Licensee's 4A Affidavit it was also demonstrated that the corrosion that could result from hurricane induced immersion of an SGLA is negligible.

It is concluded that if one to three SGLAs are placed in a temporary storage location at elevation +17.5' MLW, and either a hurricane or tornado were to interact with the Turkey Point facility, the SGLAs would be expected to remain in their temporary storage location and their physical integrity would be expected to remain intact.

Based on the discussion above, the proposed repair activity may be conducted at any time of the year. Any attempt to associate the time of the repair activity with the hurricane season is not warranted. The facts clearly demonstrate that the repair may be conducted at any time of the year.

The potential effects of the severe tornado on the SGSC were also evaluated. A tornado-borne missile that could be associated with the tornado could be contained by a reinforced concrete wall 12 inches thick. The SGSC has reinforced concrete walls 24 inches thick. (It must be remembered that the discussion above notes that a tornado-borne missile cannot penetrate the thick steel walls of the SGLA.)

The tornadic wind loads are greater than those associated with the PMH. The result is that structural materials approach but do not exceed their respective yield values. Thus collapse of the SGSC walls is not anticipated.



The additional uplift forces on the roof associated with the pressure drop in the tornado's vortex are not sufficient to cause the roof to lift off the building and be relocated to some other area of the facility. The roof is expected to remain in place.

Based on the SGSC evaluation of the severe tornado, it is concluded that the building will maintain its structural integrity, i.e., it will not collapse. Cracks, concrete spalling, etc. can reasonably be expected to result from the occurrence of the tornadic event analyzed, but catastrophic failure will not occur.

Evaluation of Potential Radiation Hazard

Staff's material facts Nos. 10 through 12 correctly demonstrate that there is an inconsequential potential radiological hazard that could result from the interaction of a hurricane or tornado with the Turkey Point site. The discussion above demonstrates that no radioactive release is to be expected from the occurrence of a hurricane or tornado. This notwithstanding, a radiological hazard evaluation is provided below to reinforce clearly the Staff's material facts. It must be remembered, however, that the radioactive release postulated is not anticipated to occur, but is assumed solely for the analytical assessment of potential radiological hazard.



Both FPL and the Staff have postulated and analyzed an SGLA drop accident to evaluate the potential radiological hazard to public health and safety. These evaluations clearly demonstrated that there is no potential offsite airborne radiological hazard of consequence associated with the proposed repair activity.

In Licensee's 4A Affidavit it was shown that any activity in the SGLAs that could be released would not be in a volatile or aerosol form, i.e., in a form that could be dispersed as a gaseous effluent. The oxide layer in the SGLAs does not contain any radionuclides that will vaporize. Additionally, this layer is tightly adherent and it is not likely that very much would be loosened by any of the events being considered here.

The physical nature of the SGLA radioactivity notwithstanding, activity was assumed to be released from an SGLA drop accident by both FPL and NRC and to diffuse as a gas or aerosol in the atmosphere. Atmospheric conditions that inhibit rapid dilution i.e., stable, low wind speed conditions were assumed to exist concurrent with the assumed SGLA drop accident. And finally, the member of the public was assumed to be standing at the site boundary. Both FPL and the Staff have shown the accidental radiological exposure associated with this postulated event was within 10 CFR Part 20 limits. See Final Environmental Statement, § 4.4; letter from Robert E. Uhrig to Steven A. Varga (Feb. 17, 1981).



The meteorological conditions were selected by both FPL and the Staff to maximize the radiological exposure to the member of the public, namely, low wind speeds and a stable atmospheric condition that inhibits diffusion of the radioactive release. Neither of these conditions persist during hurricanes or tornadoes; these storms are characterized by very high wind speeds and atmospheric conditions that encourage rapid mixing.

As is correctly stated at paragraph 8 of the Abbey Affidavit, the atmospheric dilution between the point of release and the radiological dose receptor is proportional to the wind speed. The rapid mixing ability, i.e., turbulence, associated with these storms will further reduce airborne concentrations. To illustrate these effects, the atmospheric dilution factors (X/Qs) associated with FPL's SGLA drop accident, a minimal hurricane (74 mph) and a 200 mph tornado have been evaluated at the same site boundary. The results are:

<u>Condition</u>	<u>X/Q (sec/m³)</u>
FPL SGLA drop accident	1.7×10^{-4}
74 mph hurricane	2.1×10^{-6}
200 mph tornado	7.9×10^{-7}

The calculated radiological exposure to the member of the public at the site boundary is reduced by the ratio of the X/Qs, i.e., the tornadic exposure is 4.7×10^{-3} (7.9×10^{-7} divided by 1.7×10^{-4}) times the exposure calculated by FPL in its SGLA drop accident evaluation.

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It is reasonable to conclude that the radiological exposures calculated by both Licensee and Staff from postulated airborne releases would be reduced by about two orders of magnitude, or more, should the release be assumed to be concurrent with the interaction of a tornado or hurricane with the Turkey Point site.

To demonstrate clearly that the hurricane or tornado does not result in exceeding 10 CFR Part 20 limits, assume that the activity in all six SGLAs is released consistently with the assumptions made by both FPL and the Staff for the SGLA drop accident. Based upon one year of radiological decay associated with three of the SGLAs and the atmospheric dilution effects of hurricanes or tornadoes, the accidental release associated with six SGLAs would result in a radiological exposure one to two orders of magnitude below 10 CFR Part 20 limits.

It must be reemphasized that the discussion of radiological exposures provided above is not expected to occur. Neither the hurricane nor the peninsular Florida tornado is expected to breach the integrity of the SGLAs. The dose analysis was provided solely to demonstrate the inconsequential nature of airborne releases that might be postulated to occur during a hurricane or tornado.

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Conclusion

Evaluation of the potential effects of hurricanes and tornadoes as they relate to the repair activity and SGLA storage indicate that these activities pose no undue risk to public health and safety.



Table 1

Tornado Intensity Classification Schemes

Dames & Moore Scale ^{*/}		Fujita Scale ^{**/}	
<u>Intensity Class</u>	<u>Estimated Velocity (mph)</u>	<u>Intensity Class</u>	<u>Estimated Velocity (mph)</u>
1	50-90	1	73-112
2	80-120	2	113-157
3	100-150	3	158-206
4	120-180	4	207-260
5	150-225	5	261-368
6	200-300		

*/ See Appendix 2F to FSAR for St. Lucie Unit 1.

**/ "Technical Basis for Interim Regional Tornado Criteria", WASH-1300 (May, 1974), Table 1.



FURTHER AFFIANT SAYETH NOT

Date: May 4, 1981

Ping K. Wan
Ping K. Wan

DISTRICT OF COLUMBIA) SS.

of May, 1981. SWORN to and subscribed before me this 4th day

Marilyn D. Newton
Notary Public

My Commission Expires August 31, 1983



FURTHER AFFIANT SAYETH NOT

Date: MAY 4, 1981

H. H. Jabali
H. H. Jabali

STATE OF FLORIDA)
COUNTY OF DADE) SS.

SWORN to and subscribed before me this 4th day
of MAY, 1981.

Rita W. Costantino
Notary Public

NOTARY PUBLIC STATE OF FLORIDA AT LARGE
MY COMMISSION EXPIRES DEC. 5 1982
BONDED THRU GENERAL INS. UNDERWRITERS

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FURTHER AFFIANT SAYETH NOT

Date: MAY 4, 1981

Frederick G. Flugger
Frederick G. Flugger

STATE OF FLORIDA)
COUNTY OF DADE) SS.

SWORN to and subscribed before me this 4th day
of MAY, 1981.

Rita W. Costantino
Notary Public

NOTARY PUBLIC STATE OF FLORIDA AT LARGE
MY COMMISSION EXPIRES DEC. 5 1982
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STATEMENT OF PROFESSIONAL QUALIFICATIONS

PING K. WAN

EXPERIENCE

1975
to
present

Environmental Sciences Section Supervisor, Environmental Group, Bechtel Power Corporation. As supervisor of Environmental Sciences for the Environmental Staff, Mrs. Wan's primary responsibility is to conduct meteorological, climatological, air quality impact studies and chemical accident analyses for development of environmental reports, safety analysis reports, air quality studies, design features, and siting criteria for steam power plants. Her work also involves diffusion modeling for complex terrains, developing supplementary control systems, performing special limitation studies, air quality impact analyses for PSD permit applications, preparing air quality and meteorological evaluation testimonies, and serving as a witness in public hearings.

1973-
1975

Meteorology Group Leader, Environmental Group, Bechtel Power Corporation. In this capacity, Mrs. Wan was responsible for and/or conducted meteorological studies, consulted with projects and clients; assessed impacts of power plants on the environment, provided projects with meteorological design parameters; and maintained meteorological data and resource files for Bechtel Power Corporation.

1972

Consultant to NUS Corporation. Mrs. Wan, as a consultant to NUS Corporation, assisted in investigating the environmental effects of a heat dissipation system, including studies of vapor plume and its dispersion characteristics. She also contributed to the development and application of mathematical models to determine the frequency of fogging and icing conditions resulting from an evaporative heat dissipation system.

1965-
1971

Research Assistant. Mrs. Wan assisted in designing and constructing models and instruments for assessing the results of meteorological research at the University of Maryland, Montana State University, and Pacific Lutheran University. A numeric model for



determining the geographical distribution of mean surface temperature and instruments for electrical microwave measurements of the dielectric constant for researching studies were among her contributions.

EDUCATION

Chung Chi College, Hong Kong. B.S. in Physics, 1961.

Montana State University. M.S. in Physics, 1969.

Pacific Lutheran University. M.S. in Natural Science, 1967.

University of Maryland. Course work completed for PhD in Meteorology, 1971 - 1974.

PROFESSIONAL MEMBERSHIPS

American Meteorological Society

PUBLICATIONS

"Icing and Contamination Study for Midland Plant Units 1 & 2 Transmission Lines," Prepared for Consumers Power Company, Bechtel Power Corporation, 1974.

"Some Atmospheric Effects of Cooling Towers at a Steam Electric Power Plant," R.R. Chu and P.K. Wan, IEEE, Earth Environmental and Resource Conference, September 1974.

"Icing Study for Rochester Gas and Electric Company's 765-115 kV Substation and On-Site Transmission Lines," Bechtel Power Corporation, 1975.

"Sulfur Dioxide Evaluation Study for Bowline Point Station," Prepared for Orange and Rockland, Inc., Bechtel Associates Professional Corporation, 1976.

"Sulfur Dioxide Evaluation Study for Lovett Station," Prepared for Orange and Rockland Inc., Bechtel Associates Professional Corporation, 1976.

"Analysis of SO₂ Concentrations at South Mountains Monitoring Stations," Prepared for Orange and Rockland, Inc., Bechtel Associates Professional Corporation, 1976.

"Ambient Air Quality in Complex Terrain," P.K. Wan and L.A. Hembree, AMS, The 3rd Symposium on Atmospheric Turbulence

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Diffusion and Air Quality, October 1976.

"Air Quality Impact Study of Special Limitations Concerning Fuel Use for Bowline Point Station," Prepared for Orange and Rockland, Inc., Bechtel Associates Professional Corporation, 1977.

"The Role of Hourly Mixing Height Data in Air Quality Impact Study," The AMS/APCA Joint Conference on Applications of Air Pollution Meteorology, November 1977.

"Calibration Program for Complex Terrain Diffusion Model," P.K. Wan, The 4th Symposium on Turbulence, Diffusion, and Air Pollution, January 1979.



UNITED STATES OF AMERICA
NUCLEAR REGULATORY COMMISSION

BEFORE THE ATOMIC SAFETY AND LICENSING BOARD

In the Matter of)	Docket Nos. 50-250-SP
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FLORIDA POWER & LIGHT COMPANY)	
(Turkey Point Nuclear)	(Proposed Amendments to
Generating Unit Nos. 3 and)	Facility Operating License
4))	to Permit Steam Generator
)	Repairs)

CERTIFICATE OF SERVICE

I HEREBY CERTIFY THAT copies of the foregoing "Licensee's Response in Support of NRC Staff Motion for Summary Disposition of Contention 4B" and "Affidavit of F. G. Flugger and H. H. Jabali and P. K. Wan on Contention 4B" were served on the individuals whose names appear on the attached service list by deposit in the United States mail, first class, properly stamped and addressed, on the date shown below. Additional service by hand or courier was made upon the individuals next to whose name an asterisk (*) appears.



Harold F. Reis

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May 5, 1981

Attachment



UNITED STATES OF AMERICA
NUCLEAR REGULATORY COMMISSION

BEFORE THE ATOMIC SAFETY AND LICENSING BOARD

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)	(Proposed Amendments to
(Turkey Point Nuclear)	Facility Operating Licenses
Generating Unit Nos. 3 and)	to Permit Steam Generator
4))	Repair)

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May 5, 1981

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