

UNITED STATES OF AMERICA
NUCLEAR REGULATORY COMMISSION

4-6-81

BEFORE THE ATOMIC SAFETY AND LICENSING BOARD

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

AFFIDAVIT OF H. D. MANTZ
IN SUPPORT OF MOTION FOR SUMMARY
DISPOSITION OF CONTENTION 7

I am H. D. Mantz. I am employed by Florida Power and Light Company. As part of my duties, I am project general manager for the Turkey Point Steam Generator Repair Project. A resume of my professional qualifications and experience is attached and made a part of this affidavit.

The purpose of this affidavit is to address Contention 7 which provides:

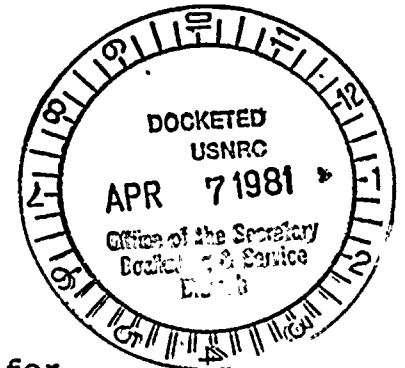
The SGRR is inadequate because:

- a. it has used the inaccurate figure of \$300,000 per day per unit for replacement power costs for reactor outage;
- b. it has failed to provide an analysis for an additional commitment of land resources for the storage of the defective steam generators;

it has failed to consider the costs of addition of a full-flow condensate demineralizer and of condenser retubing;

it has failed to update costs from December 1977 due to inflation.

I will address each of these matters separately.



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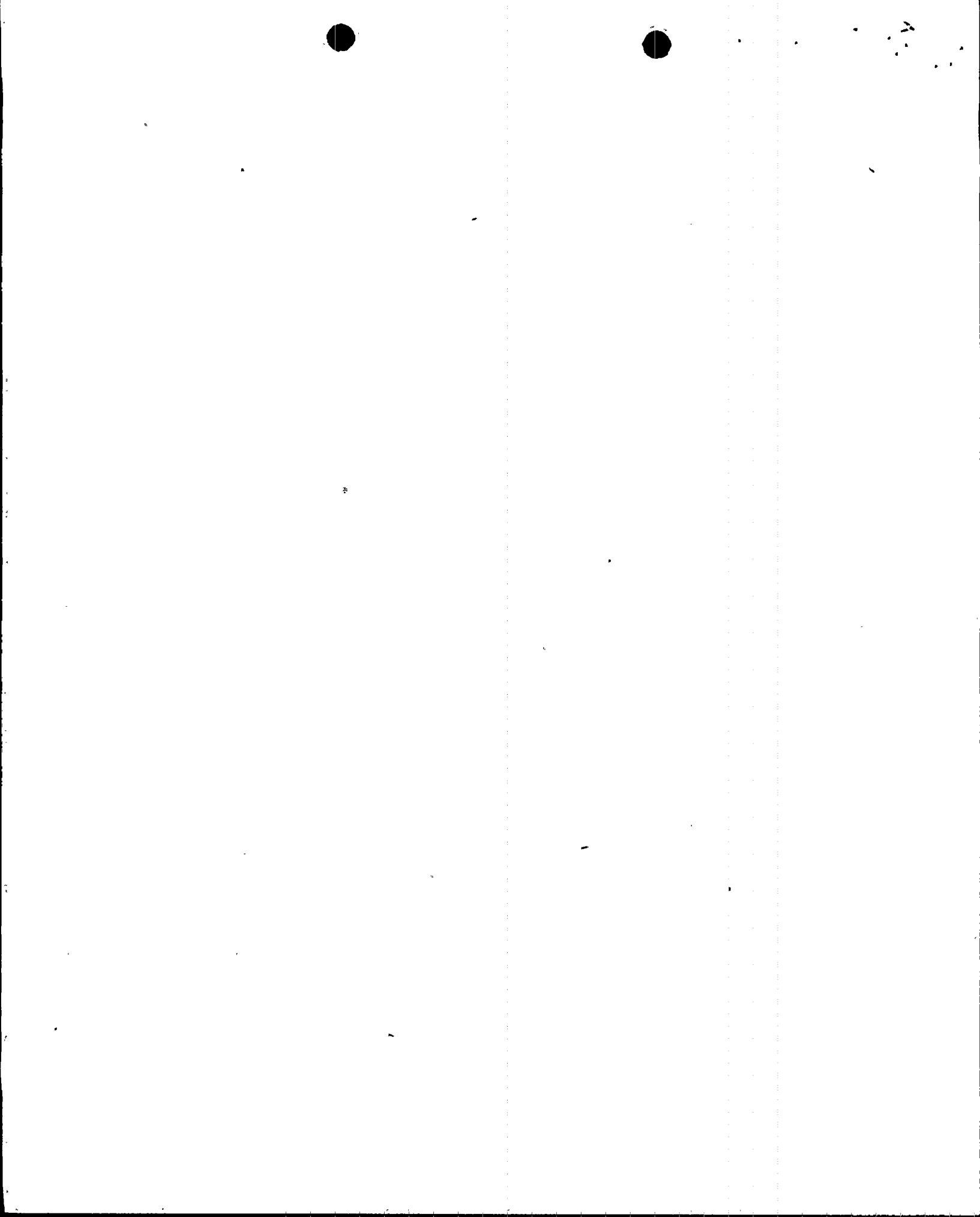
REPLACEMENT POWER COSTS (Contention 7(a))

The estimated figure of \$300,000 per day per unit for replacement power costs appears in Revision 1 of the Steam Generator Repair Report (SGRR), pg. 7-5, dated December 1, 1977.

Escalating oil costs require that fuel replacement costs be updated periodically. By December 1979, FPL had informed the Board and the parties that it had updated its previous estimates. See Licensee's Responses and Objections to Intervenor Mark P. Oncavage's Interrogatories to, and Request for the Production of Documents from Licensee, Florida Power and Light Company (Answers to Interrogatories), dated December 17, 1979, no. 11-41.

Revision 7 of the SGRR dated March 1980 further updated the estimated average replacement power cost per day per unit to \$535,000 (\$522,000 for Unit 4 and \$546,000 for Unit 3), assuming an October 1980 outage for Unit 4 and an October 1981 outage for Unit 3. This figure was utilized in Section 4.2 of the Draft Environmental Statement (DES) (NUREG-0743).

Current updated estimates of replacement power costs are \$756,000 per day for the Unit 4 outage in 1981-1982 and \$809,000 per day for the Unit 3 outage in 1982-1983. These updated fuel replacement cost estimates have been provided by FPL to the NRC Staff in its comments on the DES, February 19, 1981. These figures are based upon replacement power provided by oil and gas-fired units which FPL would press into service



(664,000 kW average unit generation x 24 hours/day x fuel differential costs of approximately 0.0558 \$/kwh (for Unit 4, based on 1981-1982 projected fuel cost differential) or 0.0597 \$/kwh (for Unit 3, based on 1982-1983 projected fuel cost differential) x 0.85 capacity factor). The NRC Staff has utilized the updated estimated per day replacement power costs in Section 4.2 of the Final Environmental Statement (FES) (NUREG - 0743), dated March 1981.

COMMITMENT OF LAND RESOURCES FOR STORAGE
OF STEAM GENERATORS (Contention 7(b))

As indicated in Section 6.2.2 of the SGRR, in the event that the removed Steam Generator Lower Assemblies (SGLA's) are to be stored onsite, there will be no additional virgin land committed for storage purposes. The planned location for the Steam Generator Storage Compound (SGSC) at Turkey Point is in an area approximately 2 acres in size located along the south side and inside the site compound. This area has been previously used for temporary storage of various materials in support of major plant outages.

The Turkey Point Plant Final Environmental Statement, dated July 1972, evaluated the commitment of about 150 acres for the nuclear units and related facilities and about 7,000 acres for the canal cooling system, and stated: (p. VII-1)

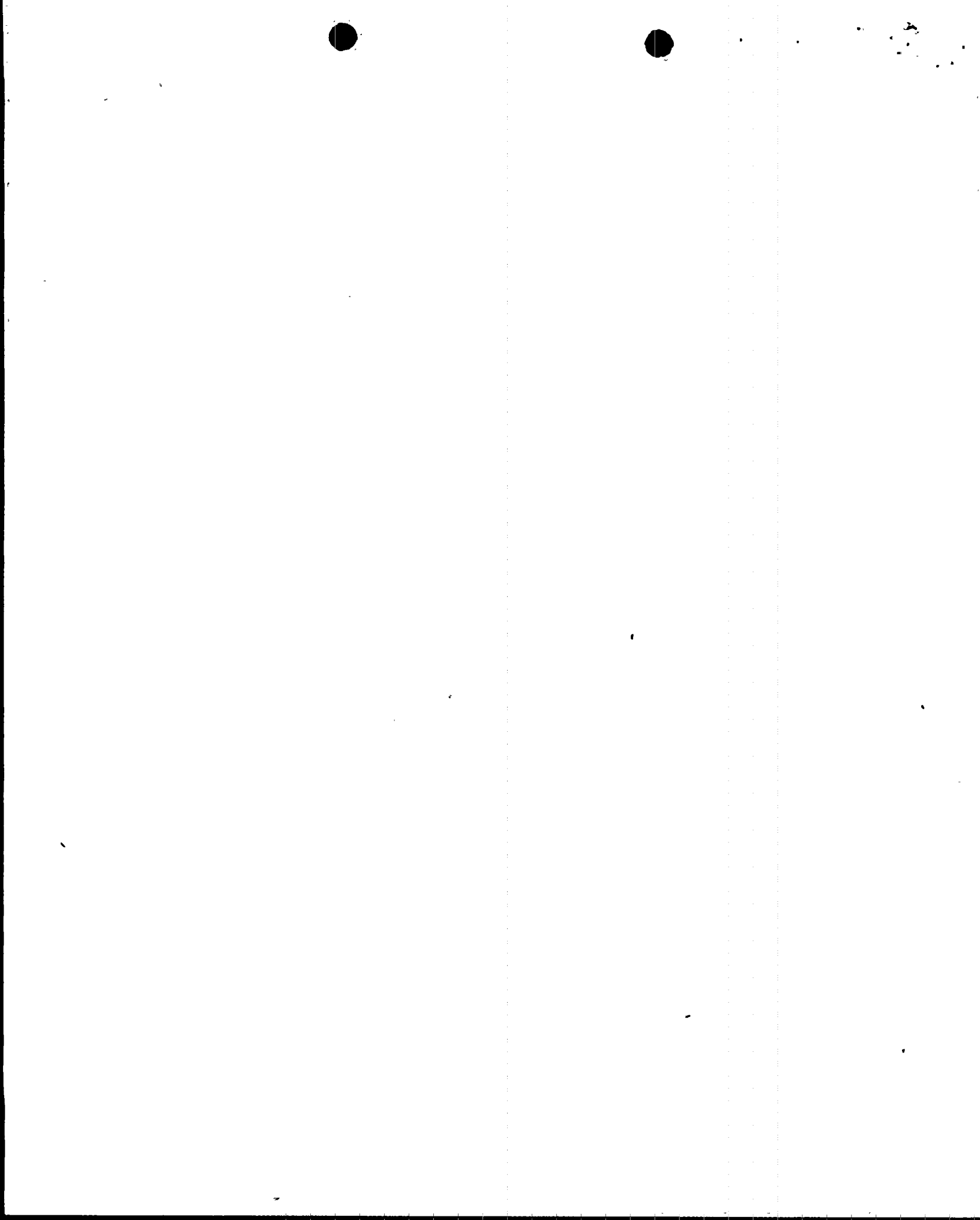


The land required for the Turkey Point site, including the 7,000 acres for the cooling water system, will be dedicated to the production of needed electrical energy for a period of 30 to 40 years; upon termination of use, the plant will be decommissioned.

The land to be used for the steam generator storage compound is within the existing site boundary and is therefore within the land contemplated as being dedicated to the production of electrical energy for 30 to 40 years. The addition of the storage compound does not increase the amount of land committed to the production of electrical energy or significantly alter the decommissioning of the site.

In the alternative, should offsite shipment of the SGLA's to Barnwell, South Carolina, be the chosen method of disposal, the area required at Barnwell for interment of the SGLA's is approximately the same as for storage onsite. This area is already committed for the burial of radioactive wastes and there are no other alternative uses for this particular piece of property, given the status of the land at Barnwell.

In conclusion, no additional commitment of land resources would take place as a result of storage of the steam generators either onsite at Turkey Point or offsite at Barnwell.



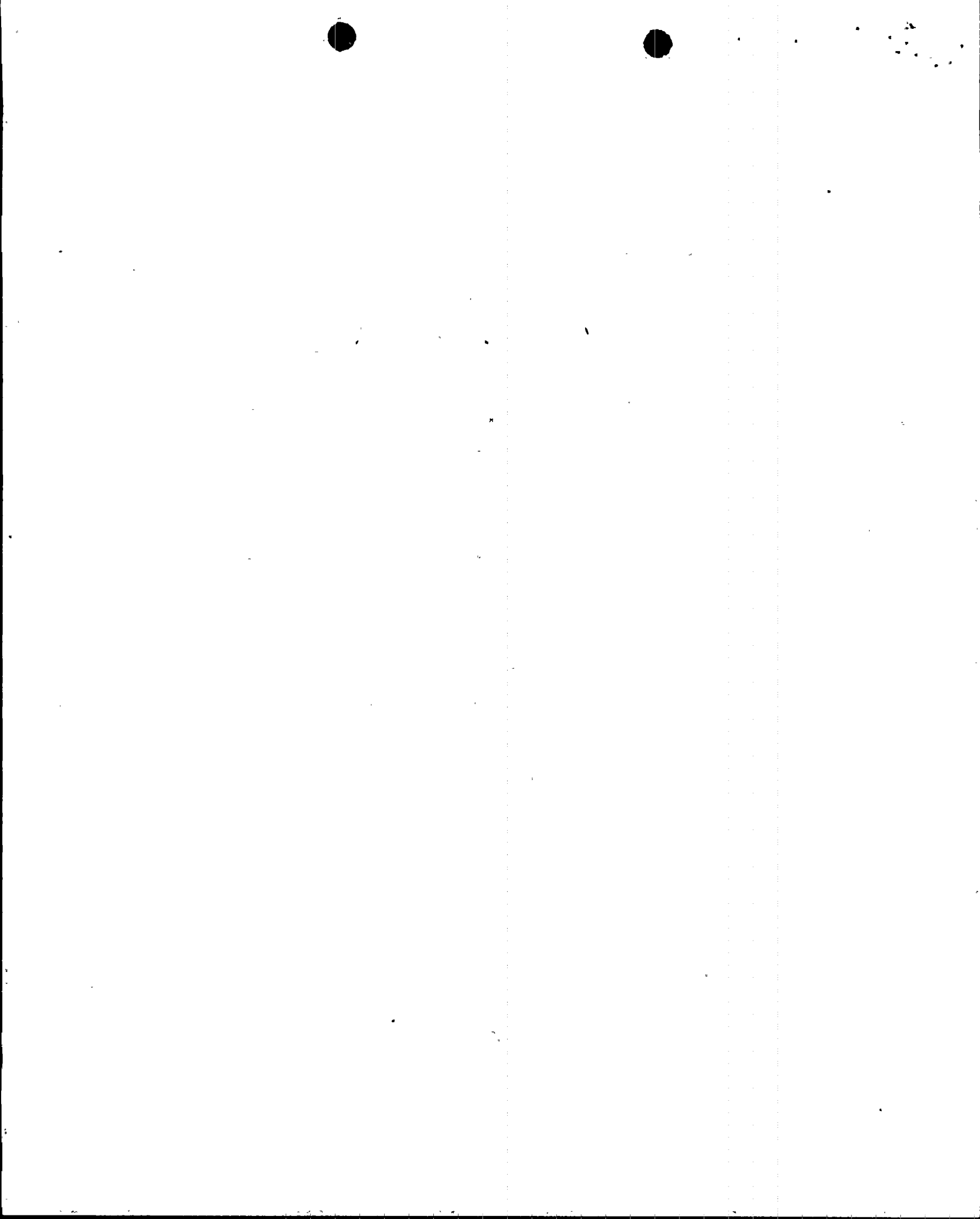
COSTS OF CONDENSATE DEMINERALIZER AND OF
CONDENSER RETUBING (CONTENTION 7(c))

The condensate polishing demineralizer system and condenser retubing are plant improvements designed to improve secondary water chemistry control at FPL's nuclear power plants, both at St. Lucie and Turkey Point.

The SGRR does not address the costs of the condensate demineralizers and condenser retubing because these improvements are not a part of and are totally independent from the steam generator repair project. The costs for both are not included in the steam generator repair project and are separate budget items. The decision to implement these improvements, including the reasons therefor and the timing involved, was completely independent of the decision to make the steam generator repairs at Turkey Point Units 3 and 4. See Joint Affidavit of A. J. Gould and J. M. Pugsley in Support of Motion for Summary Disposition of Contention 5.

The estimated cost of the condensate polishing demineralizer system for Turkey Point Units 3 and 4 is approximately \$9 million. The system will be installed and become operational consistent with procurement lead times and plant outages.

Condenser retubing at Turkey Point Units 3 and 4 commenced in early 1976 and was completed in mid-1980, well before the estimated October 1981 commencement of the repairs. Eight water boxes were retubed with titanium tubing at a cost of



approximately \$1 million per water box or a total cost of approximately \$8 million.

This information has been supplied to the Board and the parties. See Licensee's Answers to Interrogatories, December 17, 1979, No. 11-15; Licensee's Supplemental Responses January 31, 1980 Nos. 7-3, 1-30. See also letter of Robert E. Uhrig, Florida Power and Light Co., to Albert Schwencer, U.S. Nuclear Regulatory Commission, dated March 18, 1980, and Attachment 1 thereto, answer to Question D.

UPDATE OF COSTS (CONTENTION 7(d))

FPL has updated costs from December 1977, taking inflation into account.

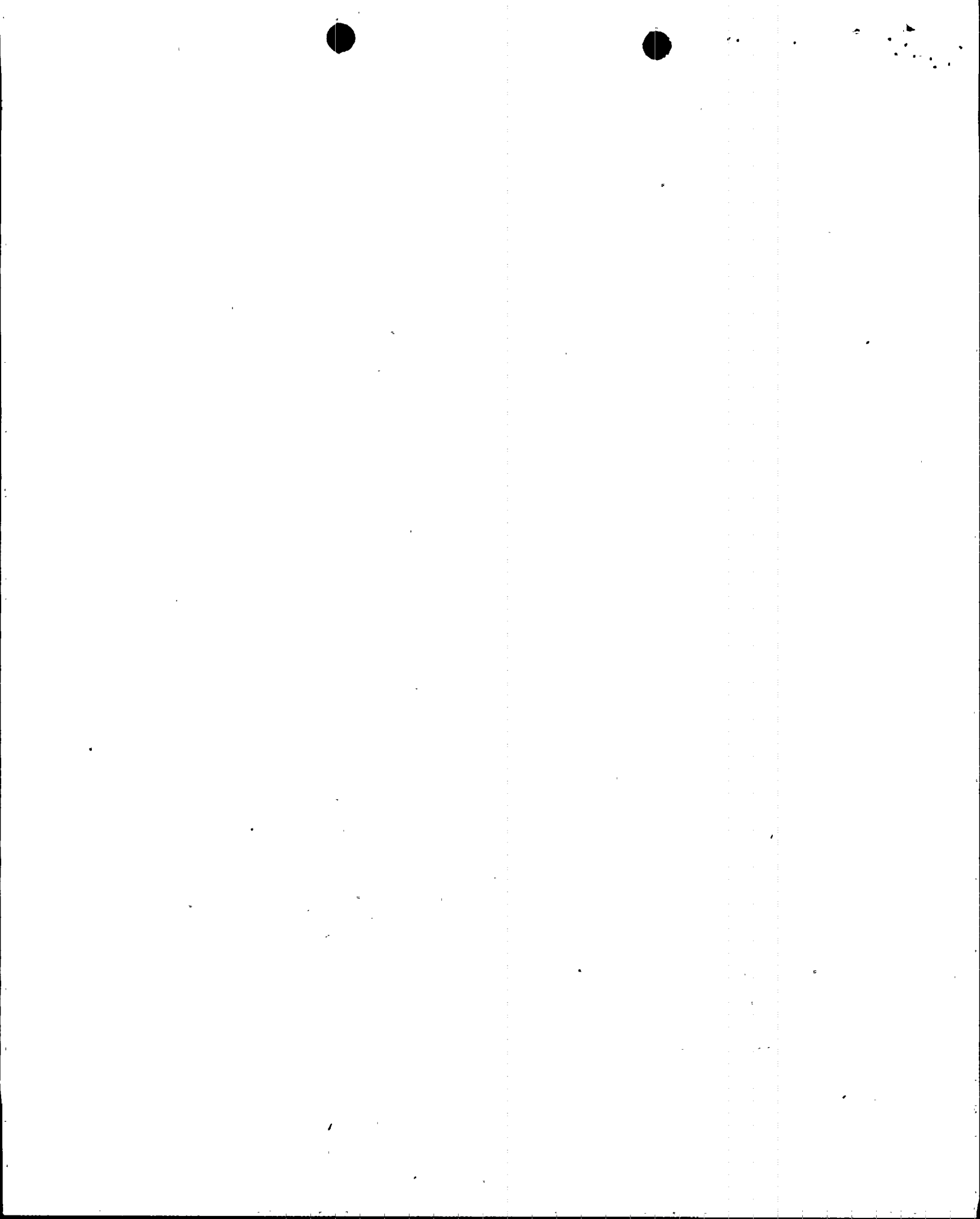
Revision 1 of the SGRR, dated December 1977, estimated the cost of the steam generator repairs for Turkey Point Units 3 and 4 at \$102 million for capital costs plus a \$300,000/day replacement power cost.^{1/}

Revision 7 of the SGRR, dated March 1980, updated repair cost estimates to \$119 million for capital costs plus a \$535,000/day replacement power cost.^{2/}

The Revision 7 cost estimates were adopted and expanded upon by the NRC Staff in Section 4.2 of the DES.

^{1/}See SGRR, Revision 1, December 1977, page 7-5.

^{2/}See SGRR, Revision 7, March 1980, pages 7-5, 7-9 and Table 7.4-2.



FPL, in its comments to the DES, submitted to the NRC on February 19, 1981, has further updated repair costs to account for inflation and outages commencing in October 1981 (for Unit 4) and October 1982 (for Unit 3). Capital costs of the repairs, including the cost of purchasing and installing the SGLA's, disposing of the removed SGLA's and associated activities, are currently estimated at about \$136 million (including \$3 million cost of disposal of removed SGLA's) for the two units. Replacement power costs have been adjusted as described above and have been estimated to total \$323 million for both units, assuming a 207-day outage assignable to the repair of each unit. These updated estimated costs have also been utilized by the NRC Staff in the FES, Section 4.2.

FURTHER AFFIANT SAYETH NOT:

Date April 6, 1981

H. D. Mantz
H. D. MANTZ

STATE OF FLORIDA)
) SS.
COUNTY OF DADE)

SWORN to and subscribed before me this 6th day
of April, 1981.

Madeline C. West
Notary Public

My Commission Expires:

