

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)	(Proposed Amendments to
)	Facility Operating License
(Turkey Point Nuclear Generating)	to Permit Steam Generator
Units 3 and 4))	Repairs)

AFFIDAVIT OF GREGORY A. HARRISON ON CONTENTION 14

I, GREGORY A. HARRISON, being duly sworn, state as follows:

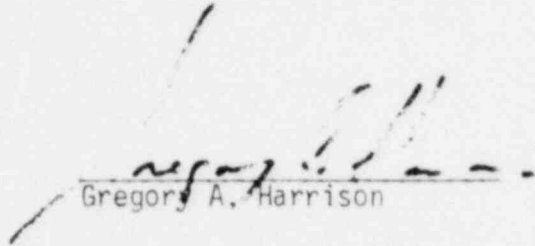
1. I am employed by the U.S. Nuclear Regulatory Commission as a Fire Protection Engineer in the Division of Engineering, Office of Nuclear Reactor Regulation.

2. Contention 14 states:


The measures proposed to be taken to protect against fire hazards associated with the steam generator repairs are inadequate to protect against radioactive releases in violation of 10 CFR Parts 20 and 50.

I have reviewed the fire protection plan for the proposed steam generator repair contained in the Steam Generator Repair Report (p. C-4-1). The staff review of this plan is contained in Section 3.2.3 of the Safety Evaluation Report related to steam generator repair at Turkey Point Units No. 3 and 4 (NUREG 0756), dated December 1980. The contents of this section (copy attached) are true and correct to the best of my knowledge and I

hereby adopt it as my direct testimony on Contention 14. This section concluded, in relevant part, that the proposed repair could be conducted without significantly increasing the potential for damage to safety-related systems as the result of fire hazards.


Gregory A. Harrison

Subscribed and sworn to before me
this 17 day of February, 1981.


Notary Public

My Commission expires: 7-1-82

Gregory A. Harrison
PROFESSIONAL QUALIFICATIONS

I am employed as a Fire Protection Engineer in the Chemical Engineering Branch, Division of Engineering, Nuclear Regulatory Commission, Bethesda, Maryland.

Education

B.S. Fire Protection Engineering, University of Maryland 1966; M.S. Civil Engineering, University of Maryland 1970; and M.S. Engineering Administration, George Washington 1979. I have received a certificate from Oak Ridge University covering the Radiation Safety Training Program. In addition, I hold professional engineering registrations in California and Maryland in fire protection and civil engineering.

Experience

I joined the USNRC in August, 1977 as a fire protection engineer. In this capacity I have performed inspections of power reactors during the construction stage to ascertain conformity with fire protection criteria; evaluated the adequacy of licensees' fire protection programs and its relation to the safety of operations. Finally, I have prepared fire protection SERs for both BWR and PWR plants.

Prior to joining the Commission I worked two years for the Arabian American Oil Company (ARAMCO) in Dhahran, Saudi Arabia. I held the position of Chief, Fire Protection Engineer for the Facilities Engineering Division.

From January, 1973, to July, 1975, I worked for the National Bureau of Standards in Gaithersburg, Maryland as fire protection engineer in fire research testing.

From July, 1969, to January, 1973, I worked as a general engineer with the Naval Ship Engineering Center, Washington, D.C.

From May, 1967, to July, 1969, I worked as a fire protection engineer for NASA at Goddard Space Flight Center, Greenbelt, Maryland.

3.2.3 Fire Protection

An evaluation of the fire protection program for the Turkey Point Plant Units 3 and 4 containment buildings was included in the NRC Safety Evaluation dated March 21, 1979¹¹ and supplemental information dated April 4, July 9, and October 9, 1980.¹³ This information is supplemented by the FPL report "Steam Generator Repair Report for the Turkey Point Power Station, Units 3 and 4,"¹ which addressed the specific fire hazards associated with the steam generator repair outage. In this regard it should be noted that a fire inside containment cannot cause offsite radioactivity exposures of consequence because the fuel will be removed from the containment of the unit under repair nor can it impair the safe shutdown capability of the plant. Nevertheless, the following is a summary of the fire protection measures to be taken during the repair operations.

The use of combustibles in the containment will be minimized to the extent practicable. Fire retardant scaffolding and materials will be used. Good housekeeping will assure that wood crates and other combustible trash are removed from the containment in a timely manner.

- However, additional amounts of combustible materials will necessarily be introduced into containment including protective clothing, cleaning fluid, charcoal filters, and plastic sheeting, but the use of these will be minimized in those areas in which cutting and welding is being done.

The fire protection for the containment consists of fire extinguishers throughout the containment, and portable fire extinguishers will be accessible in the work areas when cutting and welding is performed. A portable foam system suitable for use inside containment on liquid hydrocarbon fires will be onsite and promptly available upon demand throughout the repair. The existing containment lighting system and emergency lighting are available.

Even though FPL will not provide a permanently installed fire water standpipe system in each containment before the initiation of the steam generator repair program, a fire hose of sufficient length to reach the most remote steam generator compartments will be available and dedicated to fight fire inside containment. A fire watch will be continually present during all welding and cutting operations.

Administrative controls related to fire protection are presently in effect at the plant and are applicable during the steam generator repair outage. Additional fire protection personnel will be assigned to the replacement activities in the containment. All administrative site procedures will be reviewed for the control of combustibles and these procedures will identify all known potential fire hazards. A fire plan for the repair activities will be formulated and coordinated with the station fire plan.

Based on our review of the fire protection measures to be taken to protect safety-related structures, systems, and components, we have concluded that there is reasonable assurance that the proposed construction activities can be conducted without significantly increasing the potential for damage to safety-related systems.