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Chairman Seaborg  
Commissioner Ramey  
Commissioner Johnson  
Commissioner Thompson  
Commissioner Larson

**CRACKING OF CONTAINMENT CONCRETE AT FLORIDA  
POWER AND LIGHT COMPANY (TURKEY POINT, UNIT 3)**

I am enclosing for your information a report concerning the current status of investigations of the cracking of the prestressed concrete containment structure at the Florida Power and Light Company's Turkey Point No. 3 reactor facility. Preliminary information on this subject was forwarded to you on August 11, 1970.

Original signed by C. K. Beck

**Harold L. Price**  
Director of Regulation

Enclosure:  
Report, as stated

cc: General Manager (2)  
General Counsel (2)  
Secretary (2)

bcc: GMKavanagh, AGMR  
HLPrice, DR  
CKBeck, DR  
MMann, DR  
SHHancu, DR  
CLHenderson, DR  
LDLow, CO  
PAMorris, DRL  
JFouchard, PI  
AGiambusso, CO  
EGCase, DRS

RDO'Neill, OCR (2)  
MShaw, RDT  
JAHarris, PI  
JDAnderson, INS  
DR Reading File  
REG Central File  
CO Regions I, II, III, IV, V  
RFFraley, ACRS (3) rpt only  
RDeYoung, DRL  
CLong, DRL  
LKornblith, CO

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PDR ADOCK 05000250  
A PDR

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DATE ▶	10/2/70	10/5/70	10/5	10/5	10/9

ATOMIC ENERGY COMMISSION

CURRENT STATUS OF INVESTIGATIONS OF THE CRACKING  
OF THE PRESTRESSED CONCRETE CONTAINMENT STRUCTURE  
FLORIDA POWER AND LIGHT COMPANY (TURKEY POINT NO. 3)

Report to the Director of Regulation  
by the Director, Division of Compliance

This summary report updates information that was provided in our preliminary report dated August 11, 1970, on the concrete cracking problem in the containment dome at Florida Power and Light Company's Turkey Point 3 facility. This summary reflects the status of investigations as of September 29, 1970.

- a. An independent evaluation of concrete samples, taken from the containment building dome, was performed by a Compliance consultant, the Department of the Army's Construction Engineering Research Laboratory. The results indicate that the installed concrete meets design requirements.
- b. Bechtel, the Architect Engineer, stated that they plan to have triaxial tests performed on samples of concrete to determine its true strain and tensile strength characteristics. The date for this testing is dependent on the availability of a consulting laboratory with adequate testing equipment.
- c. Contractor personnel have removed 26 four-inch diameter cores from the dome. Fifteen more are scheduled to be removed. The depth of the cores removed varied from 16 to 29 inches. The results showed

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a separation that ranged from 1/4 to 5/8 inch at various depths ranging from 5 to 15 inches below the surface. In addition, some of the core samples had multiple layer fractures. It was not possible to determine if the fractures were interconnected.

- d. The sequence that was originally developed by Bechtel for stressing the tendons was not completely followed.
- e. The licensee and Bechtel have not been able to identify the cause of the cracking. Their investigations are continuing.
- f. The licensee stated that an interim report concerning this problem will be submitted to the Atomic Energy Commission in early October 1970. They further stated that a final report, documenting the results of their investigation and the repair program, would be submitted prior to effecting repairs.
- g. The licensee stated that a delay in the overall construction schedule will not occur if the repair is completed within the next 90 days.

The safety significance of this problem and its applicability to other facilities are being reviewed by the Divisions of Reactor Licensing and Compliance. We will inform you of significant developments.

The staff of the Joint Committee on Atomic Energy has been informed by telephone. The information provided will be confirmed by letter.

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