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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 cracking of concrete in the spherical section of the containment dome during the tendon tensioning operation on the Turkey Point Unit 3 containment structure.

(Signed) HLP

Harold L. Price Director of Regulation

Enclosure: Report, as stated

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

bcc: GMKavanagh, AG MR

HLPrice, DR
CKBeck, DR
MMMann, DR
SHHanauer, DR
CLHenderson, DR
LDLow, CO
PAMorris, DRL

JFouchard, PI AGiambusso, CO EGCase, DRS RDO'Neill, OCR (2)

MShaw, RDT
JATarris, PI
JDAnderson, INS
DR Reading File
REG Central File

CO Regions I, II, III, IV, V RFFraley, ACRS (3), rpt only

RCDeYoung, DRL

CLong, DRL LKornblith, CO 8305190376 710319 PDR ADDCK 05000250 PDR

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ATOMIC ENERGY COMMISSION

INCIDENT INVOLVING CRACKING OF THE PRESTRESSED CONCRETE CONTAINMENT STRUCTURE FLORIDA POWER AND LIGHT COMPANY (TURKEY POINT 3)

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

The Division of Compliance was informed by the licensee by telephone on August 6, 1970, that the outer three-inch concrete cover had cracked and rlaked off of a 150 square foot area of the spherical section of the containment building dome during the tendon tensioning operation. The following information is considered to be significant:

- 1. The spherical dome section is 39 inches thick and contains three layers of prestress tendons (total of 165), in individual tendon sheaths, plus normal reinforcing steel. The inner dome surface is covered with eight inches of concrete and the outer surface with three inches of concrete.
- 2. Prior to the detection of the cracking, 162 out of 165 tendons in the dome section had been installed, tensioned, and the tendon sheaths filled with protective grease.
- The failure was initially detected on or about July 15, 1970. when construction workers observed protective gresse oozing from cracks in the outer surface of the dome.
- 4. Preliminary sounding measurements by the licensee and the con-

1	OFFICE >	structor,	Bechtel,	revealed	that	the	concrete	in	the	entire	 F
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one hundred foot diameter, 90-foot radius, spherical dome section is questionable.

5. The licensee and Bechtel have engaged a consultant, Law Engineering Company, to perform nondestructive testing of the structure
to determine the extent and magnitude of the cracking. Another
consultant, T. Y. Lin Associates, has been engaged to participate
in the analysis of the causes and in the development of a corrective action program.

The licensee stated that he does not anticipate a delay in the overall construction schedule at this time since the containment structure is not now a limiting schedule item. However, he also stated that he will be in a better position to ascertain any effects on the schedule after nondestructive testing is completed. A written report of this cracking will be submitted by the licensee to the Atomic Energy Commission.

The Division of Compliance is currently investigating this problem. We will inform you of significant developments.

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

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Form AEC-318 (Rev. 9-53)