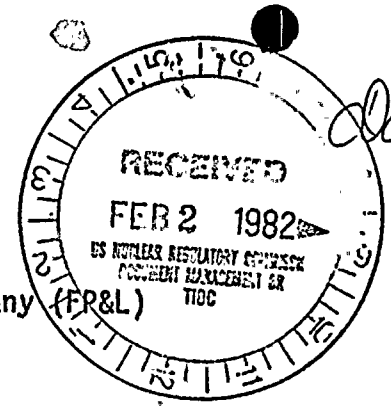
JAN 21 1982



Docket File
DCS-MS-016

LICENSEE: Florida Power and Light Company (FP&L)

FACILITY: St. Lucie Unit 1

SUBJECT: SUMMARY OF MEETING WITH FLORIDA POWER AND LIGHT COMPANY (FP&L)

On January 13, 1982 we met with FP&L and Exxon Nuclear (ENC) to discuss the use of Exxon fuel at St. Lucie Unit 1. A list of attendees is attached as Enclosure 1.

FP&L and ENC summarized the work necessary to support the use of Exxon fuel at St. Lucie Unit 1 during Cycle 6 operation. An outline of this work is presented in Enclosure 2.

St. Lucie 1 is currently operating in Cycle 5 and the Cycle 6 reload is scheduled for April 1983. FP&L does not believe technical specifications changes will be necessary for Cycle 6 operation and intends to obtain NRC approval of the Exxon fuel related topical reports prior to the reload. The schedule for submittals and requested approvals is on the last page of Enclosure 2.

We indicated that our review of the fuel design related topical reports (RODEX2, Increased Fuel Exposure and 14X14 Fuel Mechanical Design) can be performed on a schedule consistent with Cycle 6 use of Exxon fuel. While we could not quantify an extension of the proposed schedules for ECCS and DNBR review we did indicate we may have a problem meeting those schedules. We also stated that example problems, showing the application of the ECCS and DNBR Correlation methods to St. Lucie Unit 1, must be provided before we can complete our review.

MEMO 4

ENC indicated that the proposed NRC completion dates are set by the use of these methods for D. C. Cook Unit 2. The plant specific aspects supporting the use of this methodology will be submitted in the order they are needed (Cook then St. Lucie) with St. Lucie Unit 1 example problems expected in June 1982 (ECCS) and July 1982 (DNBR). We expect FP&L's February submittal to specify the schedule for St. Lucie Unit 1.

We asked FP&L what fuel management changes were being considered for Cycle 6 to reduce the rate of irradiation of reactor vessel materials. FP&L will review this topic and discuss it with us at a later date.

Original signed by:

Christian C. Nelson, Project Manager
Operating Reactors Branch #3
Division of Licensing

Enclosures: Asstated

OFFICE	cc: See next page		ORB#3:DL	ORB#3:DL	ORB#3:DL		
SURNAME			PMKreutzer	CNelson/pn	RAClark		
DATE			1/20/82	1/20/82	1/20/82		

MEETING SUMMARY DISTRIBUTION

Licensee: Florida Power and Light Company

*Copies also sent to those people on service (cc) list for subject plant(s).

Docket File
NRC PDR
L PDR
NSIC
TERA
ORB#3 Rdg
JOlshinski
JHeltemes, AEOD
BGrimes
RClark
Project Manager
Licensing Assistant
ACRS (10)
Mtg Summary Dist.
NRC Participants
M. Grotenhuis

Florida Power & Light Company

cc:
Harold F. Reis, Esquire
Lowenstein, Newman, Reis & Alexrad
1025 Connecticut Avenue, N.W.
Washington, D. C. 20036

Norman A. Coll, Esquire
McCarthy, Steel, Hector & Davis
14th Floor, First National Bank Building
Miami Florida 33131

Indian River Junior College Library
3209 Virginia Avenue
Fort Pierce, Florida 33450

Administrator
Department of Environmental Regulation
Power Plant Siting Section
State of Florida
2600 Blair Stone Road
Tallahassee, Florida 32301

Mr. Weldon B. Lewis
County Administrator
St. Lucie County
2300 Virginia Avenue, Room 104
Fort Pierce, Florida 33450

U.S. Environmental Protection Agency
Region IV Office
ATTN: Regional Radiation
Representative
345 Courtland Street, N.E.
Atlanta, Georgia 30308

Mr. Charles B. Brinkman
Manager - Washington Nuclear Operations
C-E Power Systems
Combustion Engineering, Inc.
4853 Cordell Avenue, Suite A-1
Bethesda, Maryland 20014

Regional Administrator
Nuclear Regulatory Commission, Region II
Office of Inspection and Enforcement
101 Marietta Street, Suite 3100
Atlanta, Georgia 30303

Mr. Jack Schreve
Office of the Public Counsel
Room 4, Holland Building
Tallahassee, Florida 32304

Resident Inspector/St. Lucie
Nuclear Power Station
c/o U.S.N.R.C.
P. O. Box 400
Jensen Beach, Florida 33457

Bureau of Intergovernmental
Relations
660 Apalachee Parkway
Tallahassee, Florida 32304

Enclosure 1

LIST OF ATTENDEES

NRC

C. Nelson
R. Clark
T. Novak
L. Phillips
R. Meyer
D. Fieno
G. N. Lauben
J. Holonich

FP&L

D. Evans
R. Kaminsky
S. Shepherd
C. O'Farrill
R. Hankel

ENC

G. Cooke
J. Morgan
M. Killgore
S. Jensen
J. Owsley

Enclosure 2

ST. LUCIE UNIT 1

CYCLE 6 RELOAD LICENSING MEETING

AGENDA

INTRODUCTION

1. REACTOR SCHEDULE
2. PURPOSE OF MEETING

CONTENT OF CYCLE 6 APPLICATION AND SUPPORTING METHODOLOGY

1. FUEL MECHANICAL DESIGN
2. NEUTRONICS
3. THERMAL-HYDRAULICS
4. ECCS
5. PLANT TRANSIENTS
6. ROD EJECTION

LICENSING PLAN AND SCHEDULE

FUEL MECHANICAL DESIGN

FUEL NEARLY IDENTICAL TO ENC FUEL USED IN MAINE YANKEE AND SIMILAR TO THAT USED IN FORT CALHOUN.

DESIGN ANALYSIS

- WITH RODEX2 WHICH IS UNDER REVIEW

ENC TOPICAL REPORT WILL BE SUBMITTED FOR REVIEW.

REACTOR PHYSICS

ANALYSIS METHODS - APPROVED

ST. LUCIE ANALYSIS

- PREVIOUS CYCLE ANALYSIS FOR BENCHMARKING/ESTABLISHING EXPOSURE HISTORY
- COEFFICIENTS FOR SAFETY ANALYSES
- REACTIVITY PREDICTIONS
  - ROD WORTHS
  - CORE
  - BURNUP
- POWER DISTRIBUTION PREDICTIONS

THERMAL-HYDRAULIC DESIGN

METHODOLOGY

- THERMAL-HYDRAULIC CONDITIONS — APPROVED
- DNBR CORRELATION — BEING REVISED
  - UNCERTAINTIES TO BE CONVOLUTED
- PRESSURE DROP TESTING — COMPLETED
- ROD BOW EFFECT — UNDER REVIEW

APPLICATION TO ST. LUCIE

- REVISED DNB CORRELATION
- UNCERTAINTIES CONVOLUTED

ECCS ANALYSIS

METHODOLOGY

RELAP4-EM (BLOWDOWN)	APPROVED
REFLEX (REFLOOD)	BEING REVISED
TOODEE2 (HEATUP)	BEING REVISED
RODEX2 (STORED ENERGY)	UNDER REVIEW
SMALL BREAK MODEL (II K 3.30 OF NUREG-0737)	BEING DEVELOPED

ST. LUCIE ANALYSIS

LARGE BREAK - SIMILAR TO FT. CALHOUN

PLANT TRANSIENT ANALYSIS

PTS/PWR2 CODE (AS APPLIED FOR FT. CALHOUN) APPROVED FOR SPECIFIC PREVIOUS APPLICATIONS

ST. LUCIE ANALYSIS

LIMITING TRANSIENTS WILL BE IDENTIFIED. ABOUT 7 WILL BE ANALYZED. AS APPROPRIATE, UNCERTAINTY CONVOLUTION MAY BE PERFORMED FOR LIMITING TRANSIENTS.

ROD EJECTION ACCIDENT

METHODOLOGY

ANALYSIS CODE (XTRAN)	APPROVED
GENERIC ANALYSIS	APPROVED FOR SPECIFIC PREVIOUS APPLICATIONS

ST. LUCIE ANALYSIS

REFERENCE GENERIC ANALYSIS.

LICENSING SCHEDULE

ITEM	ACTION DATE	ORGANIZATION
LETTER ADVISING NRC OF CYCLE 6 PLANS AND REFERENCING ENC TOPICAL REPORTS	2/82	FP&L
ENC TOPICAL REPORTS ALREADY SCHEDULED		
• FUEL ROD THERMAL-MECHANICAL RESPONSE EVALUATION MODEL (RODEX2)	8/81	ENC
APPROVAL TARGETED BY NRC	6/82	
• JUSTIFICATION FOR INCREASED FUEL EXPOSURE (RESPONSE TO NRC LETTER TO ENC DTD. 8/17/81)	2/82	ENC
• MODIFIED ECCS EVALUATION MODEL (ENC INITIATED ACTION TO MODIFY ITS ECCS EVALUATION MODEL IN MID-1981; ENC LETTER TO NRC DTD. 9/21/81)	1/82	ENC
APPROVAL TARGETED BY NRC	4/82	
• MODIFIED DNBR CORRELATION FOR PWR'S WHICH INCORPORATES VARIOUS FUEL TYPES AND APPROPRIATE METHODOLOGY FOR APPLYING THE MODEL	2-6/82	ENC
APPROVAL REQUESTED BY NRC	9/82	
ENC TOPICAL REPORT BEING SCHEDULED		
• 14x14 FUEL MECHANICAL DESIGN REPORT FOR C.E. REACTORS	12/82	ENC
COMPLETION OF ST. LUCIE CYCLE 6 SAFETY ANALYSIS FOR OPERATION WITH ENC FUEL	12/82	ENC
REACTOR STARTUP - CYCLE 6	4/83	FP&L