



LONG ISLAND LIGHTING COMPANY

SHOREHAM NUCLEAR POWER STATION

P.O. BOX 618, NORTH COUNTRY ROAD • WADING RIVER, N.Y. 11792

JOHN D. LEONARD, JR.
VICE PRESIDENT - NUCLEAR OPERATIONS

JAN 31 1986

SNRC-1230

Mr. Harold R. Denton, Director
Office of Nuclear Reactor Regulation
U.S. Nuclear Regulatory Commission
Washington, DC 20555

License Candidate Training Program
Shoreham Nuclear Power Station
Docket No. 50-322

Reference: Telephone conversation between LILCO (L. Calone, R. McNair, M. Gross and P. Puttre) and NRC (R. Caruso and J. Bury) on November 6, 1985

Dear Mr. Denton:

In our reference call regarding the current vs. proposed License Candidate Training Program, the major concern addressed was meeting the required observation criteria. NUREG 1021, ES-109, section B.2(f), requires, "Participation in reactor and plant operation at power levels of at least 20% power operation", be included in a hot license candidate training program. NUREG 1021, ES-109, section E.1 defines, "Cold examinations are those examinations administered before initial criticality".

The Long Island Lighting Company's present situation is that initial criticality and up to 5% power has been achieved but 20% power operation has not. We cannot predict when 20% power operation will be achieved due to the unique licensing problems that plague our facility. We are, therefore, proposing an alternative to the License Training Program in the FSAR for your review and approval. The attachment to this letter consists of two parts. The first is comprised of an outline describing the various parts of the proposed training program. The second consists of a schedule comparison of the FSAR cold and hot license training programs to the proposed training program. Please review the attached comparative data to insure LILCO satisfies your concern regarding the required observation criteria. This alternative program would substitute three months on-shift Shoreham experience at power levels less than or equal to 5% thermal power and two weeks observation training at power levels greater than or equal to 20% thermal power for the originally intended three months as an extra man on-shift at power levels greater than 20%.

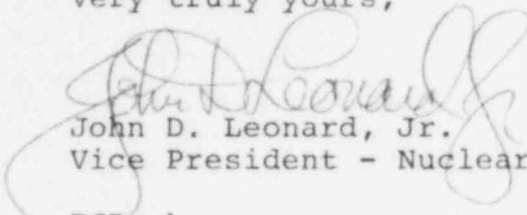
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In accordance with the requirements of 10 CFR 170.21, LILCO encloses a \$150.00 check covering the prescribed application fee for this approval request. In order to minimize any impact on LILCO's resources or the current group of license candidates, your response to this letter is requested by April 30, 1986. Specific questions concerning these proposed changes should be directed to our Mr. L. J. Calone (516) 929-6700, extension 411, or Mr. J. Wynne (516) 929-6700, extension 597.

Very truly yours,



John D. Leonard, Jr.
Vice President - Nuclear Operations

PGP:ck

Attachment

cc: J. A. Berry

ATTACHMENT TO SNRC-1230

55 WEEK PROGRAM

- o 16 week Nuclear Fundamental Training
- o 11 week Systems/Procedure Training
- o 1 week Mitigating Core Damage and Accident Analysis
- o 5 week Simulator Training
- c 1 week Reactor Research Training
- o 12 week On-shift Training
- o 2 week Observation Training
- o 7 week Review Period

16 WEEK NUCLEAR FUNDAMENTALS

- o Mathematics
- o Physics Mechanics
- o Fluids
- o Heat Transfer/Thermodynamics
- o Electricity
- o Chemistry/Radiation
- o Nuclear Physics
- o Reactor Physics
- o Thermal Limits
- o Instrumentation
- o Print Reading

11 WEEK SYSTEM/PROCEDURES TRAINING

- o ECCS Systems
- o BOP Systems
- o Integrated Plant Response
- o Operating Procedure
- o Emergency Procedure
- o Technical Specification

5 WEEK SIMULATOR TRAINING

(Use of SNPS Procedures, Techniques and Shoreham Drills)

- o Pull to critical
- o Heatups/Cooldowns
- o Drill Scenario
- o Oral Examination
- o Written Examination

1 WEEK REACTOR RESEARCH TRAINING

- o Each student will pull 10 criticals
- o Experiments in the following areas:
 - 1) Approach to critical
 - 2) Control rod worth
 - 3) Temperature coefficient
 - 4) Heat Balance Power Calibration
 - 5) Xenon Transient

12 WEEK ON-SHIFT TRAINING

- o Provide license candidate with hands on operating training performing daily routine job functions as a watch stander. The following task should be performed:
 - 1) Shift Turnover
 - 2) Tech Spec/BOP Log recording
 - 3) Surveillance Testing of ECCS and BOP equipment
 - 4) Plant heatups/cooldowns when available
 - 5) Pull to critical when available
 - 6) Qual guide checkouts

Operations has agreed to use the plant to provide to the trainees an opportunity to perform a startup (pull critical), to participate in a heatup/cooldown, and to assist in operating ECCS equipment for surveillance requirements.

The operation of the reactor will be limited to availability and by Technical Specifications. Every attempt will be made to give each trainee plant specific reactor operations training during the training period. Details will be included in the training program file at Shoreham.

In that instance where this training cannot be performed, the Nuclear Training Division will notify NRR at the earliest opportunity to discuss alternatives.

2 WEEK OBSERVATION TRAINING

- o Examine operation at a similar plant above 20% Reactor Power

7 WEEK OBSERVATION TRAINING

- o Self study
- o Practice written and oral exams
- o Audit exam
- o Remedial training

NUCLEAR TRAINING SCHEDULE

		WEEKS																																																						
COURSE		1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43	44	45	46	47	48	49	50	51	52	53	54	55
FSAR	COLD LICENSE	BASIC NUCLEAR COURSE													BWR TECHNOLOGY					BWR OPERATOR TRAINING 120 HOURS ON SIMULATOR FOR EACH INDIVIDUAL										BWR OBSERVATION TRAINING					ON - SITE TRAINING APPROXIMATELY 10 WEEKS												MITIGATION OF CORE DAMAGE TRAINING									
FSAR	HOT LICENSE	NUCLEAR FUNDAMENTALS													SHOREHAM SYSTEMS AND PROCEDURES										SIMULATOR TRAINING 100 HOURS ON SIMULATOR FOR EACH INDIVIDUAL					3 MONTHS AS AN EXTRA MAN ON SHIFT AT SHOREHAM												SHOREHAM SYSTEMS/THEORY/PROCEDURE REVIEW					MITIGATION OF CORE DAMAGE TRAINING									
PROPOSED	LICENSE TRAINING	NUCLEAR FUNDAMENTALS (16 WEEKS)													SHOREHAM SYSTEMS PROCEDURES TECH SPECS ACCIDENT ANALYSIS (11 WEEKS)										SIMULATOR ON SIMULATOR (5 WEEKS)					THREE MONTHS ON SHIFT 1. LOGS 2. SURVEILLANCES 3. ADMINISTRATIVE 4. STARTUP & TEST 5. CRITICALS 6. HEATUPS 7. CRD COUPLING CHECKS 8. SN MARGIN CHECK 9. CRD SCRAM 10. REFUELING OPS 11. QUAL GUIDES (12 WEEKS)												SHOREHAM SYSTEM/THEORY/PROCEDURE/TECH SPEC REVIEW (7 WEEKS)														
		1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43	44	45	46	47	48	49	50	51	52	53	54	55

NOTES: 1. MITIGATING CORE DAMAGE AND ACCIDENT ANALYSIS
2. RESEARCH REACTOR TRAINING
3. OBSERVATION TRAINING >20% POWER