

NRR

SEP 20 1983

MEMORANDUM FOR: Sandra Showman, Administrative Assistant
to Commissioner Gilinsky

FROM: Edwin G. Triner, Director
Division of Budget and Analysis
Office of Resource Management

SUBJECT: BACKGROUND INFORMATION ON SHOREHAM NUCLEAR POWER STATION
FOR COMMISSIONER GILINSKY

Attached is the background information you requested on the Shoreham Nuclear Power Station for Commissioner Gilinsky's trip.

Information was primarily obtained from the NRC Licensing Project Manager, Region I Reactor and Resident Projects staff and the Resident Inspector.

If you have any questions, please contact me.

Original Signed by
Edwin G. Triner

Edwin G. Triner, Director
Division of Budget and Analysis
Office of Resource Management

Attachment:
As stated

cc:
D. Garner
S. Chesnut
S. Droggitis
L. Van Cise
T. Rehm

bcc:
L. Barry, RM
R. Scroggins, RM
E. Triner, RM/B
J. Clark, RM/BMA
L. Underwood, RM/BMA
RM/B RF (6)
RM/BMA(2)



C. Petrone, Res. Inspector (Shoreham)
E. Greenman, Region I

8412070411 840523
PDR FOIA
BELAIR84-250 PDR

| | | | | | | | |
|----------|-------------|---------|---------|--|--|--|--|
| OFFICE | RM/BMA | RM/BMA | RM/B | | | | |
| USERNAME | Underwood:b | Clark | Triner | | | | |
| DATE | 9/20/83 | 9/20/83 | 9/20/83 | | | | |

Shoreham Nuclear Power Station

| | |
|---|--|
| Utility: | Long Island Lighting Company (LILCO) |
| Location: | Brookhaven, New York (Long Island) Suffolk County, New York |
| Docket No.: | 50-322 |
| CPPR Date: | 4/14/73 (Expires 12/83) |
| Operating License Expected: | March or April 1984, at earliest |
| Power Level: | 854 MWe (DER); 2436 MWt |
| Reactor Type: | BWR/4 |
| Architect/Engineer: | Stone and Webster |
| Nuclear Steam Supply System (NSSS) Vendor: | General Electric |
| Constructor: | Stone and Webster |
| Turbine Supplier: | General Electric |
| Condenser Cooling Method: | Once Thru |
| Condenser Cooling Water: | Long Island Sound |
| Containment: | Mark II pressure suppression type containment |
| NRC Licensing Project Manager: | Ralph Caruso (Tel: 492-8392) |
| NRC Senior Resident Inspector: | Charles Petrone (Tel: 8-516-929-3311) |
| RI Reac & Resident Projects: | Edward Greenman (Tel: 8-488-1225) |

Plant Status

The applicant's percent construction complete is 99 percent.

Most of the preoperational testing has been completed.

Main construction work has been completed.

Major emphasis is being given to determining the cause of the failure of the diesel generator and repair or replacement of the diesel generator. A torsional vibration analyses test was scheduled Monday, 9/19/83.

Mostly paper work, painting and pipe installation are in progress.

Diesel Generator Repairs

Failure of an emergency diesel generator crank shaft was experienced on August 12, 1983. Two other emergency diesel generator crank shafts were also found to have cracks. The applicant is investigating the cause of failure which has not yet been identified.

Fuel Load Date

If no complications are encountered in the repair of the diesel generators, the applicant estimates they could have the diesel generators repaired and tested and the plant ready to load fuel by March or April 1984.

Organization

The President of Long Island Lighting Company is Mr. Wilfred Uhl. The Vice President, Nuclear is Mr. (Mill)ard S. Pollock.

Ownership

Shoreham will be the first nuclear power project for LILCO. Ownership is exclusively by LILCO with a 100 percent share. The plant represents 60 percent of LILCO's total capital. They have requested a 50 percent rate-increase to pay for the plant.

Emergency Preparedness (EP) Plans

LILCO has submitted its own off-site emergency preparedness plan. The plan assumes all functions which would normally be performed by State and local governments.

Hearings on the plan are scheduled to start on December 5, 1983 in Long Island, New York. There have been over 100 admitted emergency preparedness contentions.

The applicant's EP plan has been submitted to FEMA for review. FEMA found numerous technical inadequacies as well as several legal questions still to be answered regarding the limits of LILCO's authority in implementing certain portions of the plan.

The NRC has not yet received final FEMA findings on LILCO's off-site EP plan.

Suffolk County legislature has determined that effective off-site emergency preparedness is not possible and has decided it will not participate in off-site emergency preparedness for Shoreham.

The Governor of New York has stated that he would not force the county to participate. The State has not taken a formal position on this issue. The Governor has appointed a special commission to study all aspects of the issue at Shoreham, including emergency preparedness and rate increases. The report is due out in October 1983. Mr. Dircks (EDO:NRC) is a member of the State-appointed Commission.

Hearings on Safety Issues

Hearings on all safety issues except emergency diesel generators are complete and the Licensing Board's partial initial decision (PID) is expected on September 21, 1983.

Emergency diesel generator hearings are postponed indefinitely until the cause of the failure of the emergency diesel generator crank shaft has been determined.

The first Safety Evaluation Report was issued by NRC in April of 1981. Three supplements have been issued since and one is to be issued this month. The LPM estimates at least one more will be issued.

QA Allegations

Allegations concerning quality assurance in the design and construction of the Shoreham facility were initially reported to the NRC Region I office in January of 1983. Most, if not all, of the allegations were vague, lacking in detail and in need of further specificity before a determination could be made relative to the appropriate inspection effort, if any, required to resolve the concerns. In July 1983 more specific information regarding QA allegations was received by the Region.

The NRC Region I office has conducted an inspection into the allegations and the results of these findings are documented in Inspection Report No. 50-322/83-26 dated August 30, 1983. Another inspection was made on these same allegations and was concluded on September 16, 1983. The report of these findings has not yet been issued. Region I reports that to date the allegations have not been substantiated. Further inspections are to follow regarding the QA allegations at Shoreham.

Enforcement

A proposed fine in the amount of \$40,000 was issued on 4/12/83 to Long Island Lighting Company for alleged improper testing of one of the three emergency diesel generators at the Shoreham station.

The citation was based on the findings of an NRC inspection conducted at Shoreham between November 30 and December 31, 1982, which disclosed that preoperational testing of a diesel generator was not performed in accordance with one of the procedural requirements, and that there was alleged inadequate review and approval of the test results.

The applicant has since paid the fine.

Congressional Hearing

A hearing on emergency planning and preparedness requirements was held on April 18, 1983 before the Subcommittee on Oversight and Investigation of the House Committee on Interior and Insular Affairs. Mr. William J. Dircks gave testimony for the NRC. The current status of the Shoreham proceeding as related to the emergency planning issue was also discussed. The Subcommittee also forwarded several questions to the NRC on this subject which were responded to on May 27, 1983.

Congressional Interest - Systems Interaction

By letter dated February 14, 1983, Representative Thomas J. Downey from West Islip, New York forwarded questions regarding the NRC's consideration of an operating license and the NRC's assurance of a safe operation for the Shoreham plant without first completing a detailed systems interaction study on the plant. These questions were forwarded in light of the concerns previously raised by Mr. James H. Conran, Senior Systems Engineer, Systems Interaction Section, RRAB/DST/NRR/NRC about the safety of the Shoreham Nuclear Power Plant.

The NRC responded to Representative Downey's questions on March 16, 1983 and with a follow-up letter on May 10, 1983.

Congressional Interest - Systems Interaction - (continued)

The NRC stated that the Shoreham design was reviewed against the Standard Review Plan (NUREG-0800) which requires interdisciplinary reviews of equipment, and addresses different types of potential system interactions. Thus, the existing requirements and licensing review procedures currently provide for an adequate degree of plant safety against potential adverse systems interactions. The NRC continues to be confident that current regulatory requirements and procedures provide an adequate degree of public health and safety pending the resolution of USI A-17 (Unresolved Safety Issue, Priority Category A, Task No. 17, Systems Interaction). A draft of the Task Action Plan dated March 1983, Systems Interactions in Nuclear Power Plants (Task A-17), was also provided to the Congressman. The project completion date of this task was scheduled for October 1984 and, if current regulatory requirements must be changed, for September 1985.

Systematic Assessment of Licensee Performance (SALP)

A SALP review was completed for the period February 1, 1982 through January 31, 1983 and a report issued on September 7, 1983.

| <u>Functional Areas Evaluated</u> | <u>Category*</u> |
|-----------------------------------|------------------|
| Radiological Controls | 2 |
| Maintenance | " |
| Fire Protection | " |
| Security and Safeguards | " |
| Initial Fuel Receipt | " |
| Preoperational Testing | " |
| Plant Operations | " |
| Housekeeping | 3 |
| Piping Systems and Supports | 2 |
| Electrical and Instrumentation | " |
| Engineering and Design | " |
| Licensing Activities | " |

**The SALP evaluation concluded that the Shoreham performance was acceptable during this period of transition from completion of construction to initiation of operation. However, more aggressive attention is needed by senior managers at the plant to the transition of activities as more responsibilities are assumed by the operational staff. Of particular concern is the lack of significant BWR operating experience among the licensed personnel and plant management. Also, the NRC staff has identified the need for more aggressive identification and correction of plant problems, more attention to detail and technical follow-up on those corrections, and more effective control over the transition from construction to operation. More involvement by plant management is the key to resolving these concerns.

* Category 1 - Reduced NRC attention may be appropriate.

Category 2 - NRC attention should be maintained at normal levels.

Category 3 - Both NRC and licensee attention should be increased.

**SALP cover letter dated 9/7/83.