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UNITED STATES OF AMERICA
NUCLEAR REGULATORY COMMISSION

Before the Atomic Safety and Licensing Board

In the Matter of	)	
	)	
LONG ISLAND LIGHTING COMPANY	)	Docket No. 50-322-OL-4
	)	(Low Power)
(Shoreham Nuclear Power Station Unit 1)	)	
	)	

REPLY BRIEF OF LONG ISLAND LIGHTING COMPANY IN SUPPORT OF APPLICATION FOR EXEMPTION

Hunton & Williams
Post Office Box 1535
Richmond, Virginia 23212

DATED: September 7, 1984

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PDR ADOCK 05000322
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LILCO, September 7, 1984

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I. PRELIMINARY STATEMENT

LILCO has proved that its proposed low power testing pursuant to the requested exemption will not endanger life or property and will be as safe as low power testing at a plant with qualified onsite diesel generators. The evidence further establishes that there are exigent circumstances and additional public interest considerations warranting the grant of an exemption. The Staff agrees that the exemption should be granted. Not surprisingly, however, the Intervenors oppose the requested exemption in large part for reasons totally foreign to the Commission's May 16 Order.

Ignoring much of the record, distorting much of what is not ignored and attempting to redefine the law applicable to exemptions, the Brief of Suffolk County in Opposition to LILCO's Motion for Low Power Operating License and Application for Exemption (Suffolk County Brief), the Brief of the State of New York in Opposition to LILCO's Application for a Low Power Operating License on the Basis of an Exemption from the Regulations Pursuant to 10 CFR 50.12(a) (New York Brief), and the Suffolk County and State of New York Proposed Findings of Fact (Joint Proposed Findings) argue against the requested exemption.[1] This Reply Brief addresses the Intervenors' arguments as they apply to the evidence and the issues defined in the Commission's May 16 Order. For conceptual consistency, LILCO replies here in the same format followed in the LILCO's Brief and the Staff's Proposed Findings. In a separate filing, LILCO responds in detail to the Intervenors' Proposed Findings.

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[1] LILCO's Post-Hearing Brief in Support of Application for Exemption is cited here as "LILCO's Brief." The NRC Staff Proposed Findings of Fact and Conclusions of Law are cited as "Staff Proposed Findings."

II. HEALTH AND SAFETY ISSUES

A. As Safe As

Suffolk County's unqualified or minimally qualified technical witnesses were unable or unwilling to assess the overall safety of operation as proposed by LILCO in light of the substantially reduced risk during low power operations.[2] Thus, disregarding the fact that LILCO has applied for an exemption, Suffolk County and New York State contend that LILCO's alternate AC power sources must be identical to qualified onsite power sources or they cannot be "as safe as." The Intervenor's also argue that the Commission has established this equivalence as the threshold requirement for an exemption. Though the the Board's September 5 Order recognizes that the Commission intended a "rule of reason" approach, the deficiencies in the Intervenor arguments must be addressed.

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[2] The only opinions offered by the County's technical witnesses involved an individual comparison of the EMD diesels and, separately, the 20 MW gas turbine with qualified onsite diesels. (Tr. 2460-84, Eley, Smith). The Joint Proposed Findings incredibly and deceptively argue that Eley, Smith, Minor and Bridenbaugh considered the EMDs and 20 MW gas turbine as a combined system. (Joint Proposed Findings 282, see LILCO's Proposed Findings 117, 118; Staff Proposed Finding 43, LILCO Reply Findings 27, 83).

The legal standard for assessing health and safety issues is that the exemption "will not endanger life or property." 10 CFR § 50.12(a). There is no "as safe as" requirement in the regulation. Indeed, it would be nonsensical to include such a requirement interpreted in the manner suggested by the Intervenors. If "as safe as" means "identical," exemptions would be unattainable or unnecessary. Section 50.12(a) would become a superfluous regulation.

The Commission's May 16 Order did not change the basic legal standard § 50.12(a). Although the Commission's Order is ambiguous, see September 5 Order, at 4-7, its language indicates that the Commission did not intend to set an absolute standard. It said in pertinent part:

> In addressing the determinations to be made under 10 CFR 50.12(a), the applicant should include a discussion of the following:
>
> . . .
>
> (2) Its basis for concluding that, at the power levels for which it seeks authorization to operate, operation would be as safe under the conditions proposed by it, as operation would have been with a fully qualified onsite A/C power source.

Commission Order at 2-3 (emphasis added). Thus, neither the regulation or the Commission's Order establishes "as safe as" as a rigid standard against which LILCO's exemption request must be measured. Instead, the Order requires a discussion of LILCO's claim that its proposed mode of operation would be "as safe as" operation of a plant with qualified diesels. The "as safe as" comparison using applicable deterministic criteria is LILCO's method of proving that the exemption will not "endanger life or property." LILCO, indeed, proved that operation would be as safe as operation with qualified diesels and, therefore, that life or property would not be endangered by the exemption. Importantly, as LILCO has asserted previously, not one of Suffolk County's witnesses claimed that the proposed low power testing will endanger life or property. (See LILCO Brief at 2).

Even if "as safe as" is a legal requirement, the Intervenor's arguments are nothing more than semantic quibbling. They rail against the Staff's suggestion that "as safe as" means a "comparable" level of safety. Yet, according to Webster's, "comparable" means "equivalent, similar." Webster's New Collegiate Dictionary 226 (1980). The Intervenors instead, would impose a requirement that the alternate power sources "fully measure up to" a qualified

system. Despite the language one chooses, proving that the proposed mode of operation will be "as safe as" operation with a fully qualified onsite power source requires some showing of equivalance in the safety of plant operation, but not identity of individual power sources.

In fact, a feature-by-feature comparison of a qualified onsite power source with LILCO's AC power system does not render a meaningful comparison of the safety of operation during low power testing. Such a myopic comparison would disregard the reduced power needs at low power, the vastly increased time within which power need be provided and the potential for AC power to be restored from the normal offsite system (a potential unavailable at full power where AC power is needed within seconds). The requirements for a qualified onsite power source are set for full power operation. Many of them are unimportant for low power operation where there is lower risk due to reduced potential consequences and greater time to react. The Intervenors ignore this crucial distinction.

Finally, the Intervenors ludicrously suggest that they may be denied due process of law if a "substantially as safe as" test is applied. There is no due process issue here.

There is no question of adequate notice. As stated above, § 50.12(a) requires a showing that the exemption will not "endanger life or property." The Intervenors do not even address this standard. The Commission's May 16 Order does not change the standard, but only reflects LILCO's proposed method of dealing with it. Most importantly, facts are facts. Those facts were supposedly addressed by all parties at the nine days of hearings. Supposedly, Intervenors' witnesses were not testifying about legal standards. It is now the Board's duty to find the facts from the evidence and then construe them within applicable legal parameters.[3] In short, every opportunity has been afforded for the Intervenors to present their case.[4]

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[3] At least as early as the first day of resumed hearings, Suffolk County was on notice of the Board's interest in what "as safe as" meant, therefore, that these might be argument over the meaning of "as safe as." (Tr. 726, Board).

[4] Suffolk County also erroneously cites the Washington Public Power Supply System decision and a Federal Register notice to imply that 50.12(a) has been interpreted to impose an extraordinary burden on an applicant. (Suffolk County Brief at 13). In fact, WPPSS dealt with a requested exemption from § 50.10(c) prohibiting commencement of construction before issuance of a permit. Most of the discussion in that case dealt with § 50.12(b) which expressly applies to exemptions from § 50.10. Washington Public Power Supply System (WPPSS Nuclear Project Nos. 3 & 4), CLI-77-11, 5 NRC 719, 723 (1977). Similarly, the County misleadingly omitted the first sentence from the quoted Federal Register notice. The quotation should

(footnote continued)

B. Time Within Which AC Power is Needed

Neither Suffolk County's Brief, New York's Brief nor the Joint Proposed Findings dispute the following conclusions:

> 1. The standby gas treatment system will not be necessary to mitigate any accidents or transients during the proposed low power testing. (LILCO Brief at 13, n.12; LILCO Proposed Findings 45, 46; Staff Proposed Finding 23).
>
> 2. For all events other than a LOCA during Phases III and IV, AC power would not be needed for at least 30 days. (LILCO Brief at 10-11; LILCO Proposed Finding 34; Staff Proposed Finding 18).

(footnote continued)

have read:

> A number of comments suggested that the Commission should adopt a more liberal policy regarding granting of exemptions from § 50.10(c) pursuant to § 50.12(b). The Commission has rejected this suggestion and will continue the present policy of granting such exemptions sparingly and only in cases of undue hardship.

39 Fed. Reg. 14507 (1974). Again, the Commission was dealing with pre-construction exemptions from § 50.10(c) which are expressly addressed in § 50.12(b) where more stringent requirements for exemptions are set forth. Section 50.12(a) sets the standards for granting an exemption. If they are satisfied, no further "extraordinary" standards must be met.

> 3. If a LOCA occurred during Phase IV, at least 55 or 86 minutes -- depending on which extremely conservative assumptions one employs -- would be available to restore AC power and still remain within the operational limits set by 10 CFR § 50.46, thus assuring no fuel failures or attendant radiological releases. (LILCO Brief at 11-13; LILCO Proposed Findings 38-41; Staff Proposed Findings 15, 19, 22).

These facts must, therefore, be taken as conclusively established.

Suffolk County ignores the time available to act before exceeding pertinent operational limits. It contends that LILCO's proposed AC power system cannot be as safe as qualified onsite power sources designed for full power operation because a qualified onsite power source could restore power in approximately 15 seconds. (Suffolk County Brief at 54-55). Such an argument finds no support in the regulations or in the record. The regulations do not prescribe time limits for restoration of power; they set operational limits. Any plant operating within those limits is deemed safe and is entitled to receive a license. Thus, in assessing or comparing safety, one need only determine whether operation will be within the prescribed limits.

Moreover, the record provides no support for Suffolk County's argument. Suffolk County presented no witness technically qualified to address the operational limits or the time within which they will be reached. On the other hand, LILCO and the NRC Staff each presented witness panels who testified that the regulatory standards of §50.46 would not be exceeded for substantial periods of time during low power, even in the event of a LOCA. In fact, Wayne Hodges of the Staff expressly replied on cross-examination that any differential between peak cladding temperatures below the specified operational limits would be insignificant in terms of assessing safety. (LILCO Brief at 4, 13; Tr. 1751; LILCO Reply Finding 97).

C. The Availability of AC Power

1. The Reliability of LILCO's Normal Offsite Power System

The Intervenors' evidence, Joint Proposed Findings and Suffolk County's and New York's Briefs also ignore LILCO's normal offsite power system beyond merely arguing that it ought not be considered. (LILCO Reply Finding 87). Accordingly, each of the conclusions expressed in LILCO's Brief at 15-22 and

LILCO's Proposed Findings 47-71 must be taken as true. For the reasons discussed in LILCO's Brief at pp. 12-22, the capability of LILCO's normal offsite system should not be disregarded. Its reliability and the corresponding low probability that AC power will be lost are important components in the safety equation. As importantly, LILCO proved the capacity of its normal offsite system to restore power following a blackout within the 55 or 86 minute time frame. At full power, AC power would have to be restored in seconds, thus making the normal offsite system's capability for restoring power inconsequential. At low power, however, this capability is significant. Thus, it is highly relevant that LILCO's normal offsite system provides numerous and independent generation sources and transmission paths, has historically proved highly reliable, can restore power to Shoreham within minutes following any unlikely outage and exceeds the offsite requirements of GDC 17.

B. Offsite Enhancements at Shoreham

Suffolk County and New York State failed to present any competent witnesses to evaluate the availability of AC power at Shoreham. (See LILCO Brief at 24-25, 33; LILCO Reply Findings 20-24). Instead, Suffolk County attempted a

source-by-source, attribute-by-attribute comparison with qualified onsite diesel generators. In this inappropriate and limited context Suffolk County argued that the EMD diesels and the 20 MW gas turbine were subject to single failures. But Suffolk County's witnesses repeatedly conceded that their alleged concern about the individual power sources did not contemplate single failures simultaneously affecting both sources. (LILCO Brief at 26, 34; LILCO Reply Finding 83). Thus, Suffolk County's assertion that qualified onsite diesels would be completely independent and would not share fuel systems, starters, output or input cables and control mechanisms and would be physically isolated (Suffolk County Brief at 49-50) is true also for LILCO's system of enhancements to its normal offsite system. The EMD diesels and the 20 MW gas turbines are completely independent, do not share fuel systems, starters, output or input cables or control mechanisms and are physically isolated. (E.g., Staff Proposed Findings 35, 36, 40, 43; LILCO Reply Findings 33, 34, 74).

By the end of its discussion of LILCO's AC power sources, Suffolk County is reduced to arguing that the Board erroneously struck the testimony of Minor and Weatherwax concerning PRA analyses. (Suffolk County Brief at 58-59.) Throughout its Brief, Suffolk County patronizingly suggests

that the Board "correct its error" and now admit stricken testimony. Since no error was committed, such a procedure is not necessary. It would be procedurally improper in any event since the record has been closed. Further, Suffolk County improperly ignores the Board's ruling on the testimony and attempts to rely on its substance. In doing so, it misleadingly claims that a loss of offsite power during low power operation is seven times more likely to lead to a core vulnerable condition with the alternate configuration than with a fully qualified source and that the overall likelihood that the plant would experience an event leading to core vulnerability during low power operation is two and one-half times greater under the alternate configuration. Suffolk County would have this Board infer that the stricken testimony would show the plant to be substantially less safe during the proposed low power testing. Though this evidence was properly stricken and, had it not been, LILCO would have demonstrated a number of flaws in the analysis, it is important to observe that the probabilities reflected in the Weatherwax/Minor testimony for core vulnerability for loss of offsite power transient were 3.3×10^{-6} per reactor year with the alternate power system and 0.44×10^{-6} per reactor year for the TDI diesels. (Weatherwax/Minor Proposed testimony at 10). Those

witnesses were talking about probabilities of 3.3 and .44 in a million reactor years that such a situation would arise. Not only is there no guidance for comparing probabilities so infinitesimal and remote, but the figures themselves demonstrate the safety of proposed operation. Thus, Suffolk County's improper argument relying on this testimony fails to reflect the overall safety of operation with the integrated enhancements to the offsite power system.

Finally, although LILCO has addressed the details concerning the 20 MW gas turbine and the EMD diesels in its proposed findings and reply findings, following is a brief summary describing why the Intervenors' arguments fail to impugn the safety of LILCO's proposed operation.

a. The 20 MW Gas Turbine

LILCO and the Staff established that the 20 MW gas turbine located at Shoreham had sufficient capacity and reliability and could restore power sufficiently quickly to meet any emergency need during low power testing. Suffolk County's concerns about the 20 MW gas turbine are insubstantial for the following reasons:

i. As discussed in detail in LILCO's Brief at 24-25, Suffolk County's gas turbine witnesses, Minor and Bridenbaugh, had no expertise concerning the operation of gas turbines. Neither had ever been responsible for the operation or maintenance of or had ever designed a gas turbine. (LILCO Reply Findings 21-24).

ii. Minor and Bridenbaugh had no opinion concerning the starting or operating reliability of the 20 MW gas turbine. They only testified that the past history of the gas turbine does not provide assurance that it will perform reliably in the future. (Joint Proposed Finding 272). In contrast, LILCO's and the Staff's competent witnesses testified that the unit is reliable and has been and will be tested to demonstrate its reliability. (LILCO Proposed Findings 73-77; Staff Proposed Findings 39, 43-44; LILCO Reply Finding 78).

iii. Minor and Bridenbaugh questioned the sufficiency of testing requirements for the 20 MW gas turbine. (Joint Proposed Findings 254-59). Their testimony, however, incorrectly stated LILCO's testing commitments and did not consider the substantial surveillance testing requirements imposed by the NRC Staff in addition to those originally proposed by LILCO. (LILCO Reply Findings 68-70)

iv. Minor and Bridenbaugh asserted that the alarms and indicators for the 20 MW gas turbine are not comparable to those in the control room for the TDI diesels. (Joint Proposed Findings 260-262). Other than the bald assertion that "the operators do not have the same ability to intervene and rectify developing problems with unit operations that they have with respect to the originally proposed onsite AC system" (Joint Proposed Finding 262), there is no evidence that operators would need to intervene and rectify developing problems

with the 20 MW gas turbine or any emergency source of AC power. Instead, the evidence shows that if the 20 MW gas turbine were not working properly for any reason, the EMD diesels would be used to provide AC power to necessary plant systems. Moreover, if the 20 MW gas turbine or a qualified onsite AC power source were being run in an emergency and no other power source were available, it would be highly unlikely that an operator would shut it down to "rectify developing problems" at the risk of losing AC power to the plant. In short, the lack of alarms is but a "red herring." Importantly, the alleged lack of alarms for the 20 MW gas turbine would have no effect on the EMD diesels.

v. Minor and Bridenbaugh contended that the 20 MW gas turbine cannot be started from the control room and that LILCO's procedures do not provide for dispatch of an operator to the gas turbine if it does not come on line as expected.

(Joint Proposed Findings 253, 265-67). Since the 20 MW gas turbine starts automatically upon a loss of voltage, there is no need for it to be started remotely from the control room. It can be started manually and an operator could walk from the control room to the 20 MW gas turbine in seven minutes or less. (Tr. 2928, Gunther). It can also be started remotely by the LILCO system operator. (Tr. 368, Gunther). Nevertheless, the EMD diesel generators having already started on sensing a loss of voltage would be used if the 20 MW gas turbine failed to start.

vi. Despite Minor and Bridenbaugh's assertion that the gas turbine is not designed to satisfy the single failure criterion (Joint Proposed Finding 269), there is no single failure which would incapacitate the 20 MW gas turbine and the EMD diesel generators. (LILCO Reply Finding 83; see LILCO Brief at 26.

b. The EMD Diesel Generators

Suffolk County's evidence and the Joint Proposed Findings concerning the EMD diesels suffered from similar faults:

i. Four Suffolk County witnesses attempted to address the EMD diesels. None were qualified. Neither Minor nor Bridenbaugh had ever been responsible for designing, operating or maintaining a diesel generator. (Tr. 2175-80, 2424, 2427-28, Minor, Bridenbaugh; LILCO Reply Findings 21-24). Neither Smith nor Eley had any experience with EMD diesel generators, TDI diesel generators or any other diesel generator in nuclear service. (Tr. 2419-20, 2422-23, Smith, Eley; see LILCO Brief at 33; LILCO Reply Finding 20).[5]

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[5] Smith's and Eley's unfamiliarity with EMD diesels in general and the Shoreham units in particular is evidenced by the high number of "I don't know" responses on cross-examination. (E.g., 2466 (whether EMDs have experienced any failures in output lines), 2469 (whether starter had ever

(footnote continued)

ii. Although the Intervenors postulate a number of alleged single failures which could affect all four EMD diesel generators, there is no single failure which could incapacitate the diesel generators and the 20 MW gas turbine. (See LILCO Brief at 34-35; LILCO Reply Finding 83).

iii. Joint Proposed Findings 106-09 argue that the single electrical output cable of the EMD diesels makes them less reliable than a qualified set of onsite diesel generators. These findings ignore

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(footnote continued)

failed to function, whether there have been battery failures on any EMDs), 2468-69 (whether stepping switch can be overridden manually), 2472-73 (industry starting data for qualified nuclear grade diesels), 2481 (whether LILCO plans to use 20 MW as turbine or EMD diesels first), 2486 (no major fires on EMD diesels at commercial or nuclear plants), 2491-92 (amount of air ventilating battery), 2495-96 (normal testing procedures for nuclear diesels), 2497 (whether the Shoreham EMDs were operated by NEPCO at unmanned locations), 2498 (whether diesel generator would be intentionally shut down during an emergency because of an alarm), 2501 (why TDI diesels must start in 10 seconds), 2503 (time within which AC power need be restored), 2510 (number of expected hours of operation of EMDs during low power testing), 2511 (typical operating hours of nuclear diesels), and 2516-19 (maintenance procedures in effect at time EMDs manufactured).

the independent 20 MW gas turbine which has its own output cable. Thus, even a failure in the single output cable from the EMDs would not affect the 20 MW gas turbine. The Joint Proposed Findings further disregard the availability of an alternate routing of an output cable from the EMDs to an emergency switchgear room which would be available to mitigate all events other than a LOCA. (LILCO Proposed Finding 156).

iv. Joint Proposed Findings 110-16 argue that the common starting system for the four EMD diesels make them less reliable than the TDI diesel generators.

Again, a failure in the starting system for the EMD diesels would not affect the 20 MW gas turbine. (LILCO Proposed Finding 106). Moreover, the only common failure which could incapacitate all of the EMD diesel generators' starters would be a failure in the battery. (Tr. 2468-69, Eley). No such failure has occurred on these EMDs to date. (Tr. 2468-66, Eley).

Each of the four EMDs has its own independent starting motors. (LILCO Proposed Finding 82).

v. Joint Proposed Findings 117-28 argue that the common fuel system renders the EMDs less reliable than TDI diesel generators. As before, the EMDs and the 20 MW do not share a single fuel line and a failure in the EMDs' fuel system could not in any way affect the 20 MW gas turbine. (LILCO Proposed Finding 106). These Joint Proposed Findings also fail to reflect that there is an alternate fill on the 402 engine which could be used to fuel the machines if there were a failure in the normal fuel supply line. (Tr. 2476, Smith).

vi. Joint Proposed Findings 129 and 130 argue that the reliability of the EMDs is reduced because a single event could disable all four breakers for the four EMDs. The breakers for the EMDs in no way affect the operation of the 20 MW gas turbine.

vii. Joint Proposed Findings 131-52 argue that the EMDs are less reliable than qualified onsite generators because they are more vulnerable to fires and have insufficient fire mitigation systems. Yet, Suffolk County's witnesses had no knowledge of the operating experience with EMDs in the industry or whether any fires had ever been encountered. (Tr. 2419, 2422-23, 2486, Smith, Eley). Indeed, fires are very rare on EMD diesel generators. (LILCO Proposed Finding 108; see LILCO Brief at 34). Additionally, Smith and Eley failed to consider design differences such as low pressure fuel lines. (Tr. 2485-86, Smith). Once again, a fire on the EMDs would not affect the 20 MW gas turbine. (See generally LILCO Proposed Findings 108-112.)

viii. Joint Proposed Findings 153-63 argue that the EMD diesel generators do not have the same alarms and annunciators in the control room as do the TDI diesel generators. As with the 20 MW gas turbine,

however, this is an unimportant issue. The lack of alarms on the EMD diesels would not have any affect on the operation of the 20 MW gas turbine. Importantly, these EMD diesel generators had been run unattended by New England Power Company and, at least since 1981, had experienced no unscheduled shutdowns. (LILCO Brief at 35-36; Tr. 2490, Smith; LILCO Proposed Finding 94).

ix. Joint Proposed Findings 164-89 argue that the manual operations required for the EMDs make them less reliable than onsite diesel generators. Yet, as the NRC Staff asserts in its proposed findings, there was no suggestion by any witness that operators were incapable of performing the necessary operations. (Staff Proposed Finding 30). Mere automation does not necessarily result in greater reliability as the County suggests. Indeed, the County acknowledges that actions to be performed in more than ten minutes need not be automated, but fails to apply this rule to

the 86 minute time frame in which power must be restored. (LILCO Reply Finding 80). Finally, none of the County's witnesses had any experience or expertise in the evaluation of the adequacy of operator procedures. (Staff Proposed Findings 25, 30).

x. Joint Proposed Findings 190-200 argue that the surveillance testing procedures for the EMDs are insufficient. The witnesses had no knowledge of normal testing requirements for qualified nuclear diesels and, therefore, could not compare the proposed EMD testing to those procedures. (Tr. 2495-96, Smith). And, as with the 20 MW gas turbine, the Staff has imposed stringent testing requirements in SSER 6. There was no testimony by Suffolk County's witnesses suggesting that these testing requirements were insufficient.

xi. Joint Proposed Findings 201 and 202 discuss the manufacture of the EMDs. Neither finding suggests that the machines

were improperly manufactured. Indeed, none of Suffolk County's witnesses would have been qualified make such a suggestion. The historical reliability of the EMDs at Shoreham attest to their proper manufacture. (See LILCO Proposed Findings 93, 94, 98, 103). Additionally, the historical reliability of EMD engines in the industry, which no Suffolk County witness rebutted or was capable of rebutting, indicates that historically EMDs have been manufactured properly. (LILCO Proposed Findings 89, 90, 100-102).

xii. Joint Proposed Findings 203 through 238 argue that the maintenance history for the EMDs at Shoreham has not been satisfactory. First, Suffolk County's witnesses were not familiar with EMD diesels or with the maintenance requirements for them. (LILCO Reply Finding 20). Second, the Suffolk County witnesses had no personal experience with the EMD diesels at Shoreham, in contrast to the personal

experience of Mr. Lewis with those diesels. Third, of the entries in the maintenance logs to which Suffolk County refers, none show any unscheduled shutdown of the EMD diesels subsequent to 1981 when Lewis became personally familiar with them. Fourth, and most importantly, there is no evidence of any defective part presently on the Shoreham EMDs.

xiii. Joint Proposed Findings 239-52 improperly question the starting reliability of the EMD diesels at Shoreham. Many of these findings are devoted to arguments concerning the fast start and electric start tests performed by General Motors in 1967. While there were some differences between the diesels involved in those starts and those at Shoreham, the reliability exhibited in those tests contributes to an assessment of the reliability of the Shoreham engines. Significantly electric starting diesel generators are employed in at least two

nuclear plants. (LILCO Proposed Finding 102). Additionally, Suffolk County was unable to refute the extremely high starting reliability of the EMDs during 1982 and 1983. (LILCO Proposed Finding 103). Its argument that the starting data accumulated during those years represents only an average of 150 to 200 hours a year does not lead to any uncertainty in the EMDs since diesel generators in nuclear plants are typically run only one hour per month. (Tr. 1091, Lewis). While Suffolk County's witnesses and the Joint Proposed Findings questioned some of the evidence offered by LILCO, there was no affirmative evidence of unreliability or infirmities in the EMDs' starters.

c. Procedures

Virtually everything that needs to be said about procedures has been said in LILCO's Brief at 37-40, LILCO Proposed Findings at 119-35 and the Staff Proposed Findings 25-31. Suffolk County presented no witnesses competent to

discuss procedures. And those witnesses who attempted to discuss procedures did not suggest that the procedures were insufficient, infeasible or that operators could not perform them. Since the procedures have been reviewed and approved by the NRC and demonstrated by LILCO, and since the sufficiency revisions required in SSER 6 have not been challenged, there is no reason to doubt their efficacy. The mere fact that the Staff has suggested additional revisions to the procedures and will require those revisions as license conditions only shows that the Staff's review was thorough and that the present procedures will be improved.

d. Seismic Resistance

There is no contradiction in the evidence that the offsite AC power sources do not need to be seismically qualified. (LILCO Brief at 40-41; LILCO Proposed Findings 136-141; Staff Proposed Finding 46). Moreover, there is little dispute about the seismic capabilities of the EMD diesel generators and the 20 MW gas turbine. (LILCO Brief at 41-43; LILCO Proposed Findings 142-157; Joint Proposed Findings 24, 25, 43, 61, 63). Nonetheless, Intervenors argue at length that operation of Shoreham as proposed by LILCO cannot be as safe as with qualified diesels because the AC power sources are not

fully seismically qualified. These arguments are irrelevant in light of the uncontroverted evidence that a complete absence of seismic qualification would have no adverse safety impact.

5. Other General Design Criteria

Another example of Suffolk County's attempt to conceive new procedural barriers is its argument that no exemption can issue because LILCO did not formally present evidence concerning GDC's 1-4, 18, 33-35, 37, 38, 40, 41, 43, 44 and 46. (Suffolk County Brief at 61-62). The County acknowledges that LILCO's Application for Exemption sought an exemption from CDC 17 "and from any other applicable regulations, if any." (Application for Exemption at 4). Each of the cited general design criteria are allegedly unsatisfied only because of the absence of qualified diesel generators. In proving that operation will be as safe as with a qualified onsite AC power source, LILCO has also proved that operation without satisfying the other general design criteria specifically applicable to an onsite power source will also be as safe.[6]

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[6] Put another way, the regulations impose certain requirements on AC power sources. If no onsite source exists,

(footnote continued)

For example, GDC 17 does not discuss "qualified" onsite power sources. It only requires an onsite power source sufficient to meet the functions described. Thus, the concept of a qualified onsite diesel has no meaning without reference to GDC 1-4. Necessarily, the comparison between the level of safety with a qualified onsite power source and with the sources proposed by LILCO inherently incorporates consideration of these other general design criteria which give meaning to the term "qualified."

Similarly, GDC 18 requires, in pertinent part, testability of the onsite source. Obviously, without an onsite source, this portion of GDC 18 has no safety impact. And the other cited general design criteria are allegedly unsatisfied only to the extent they require that the applicable systems have sufficient redundancy to assure that the system can function if offsite power is unavailable or that the transfer between normal and emergency power sources shall be testable.

(footnote continued)

there is nothing to which these requirements can apply. This can either be viewed as an exemption from having a qualified GDC 17 power source (with all its attendant regulatory baggage), or an exemption from each of the regulations that apply to a qualified onsite power source. Regardless of how this is viewed as a legal matter, LILCO's factual comparison remains valid.

Again, since LILCO has proved the safety of operation of the plant without a qualified onsite power source, the necessity for those other systems to operate has been taken into account.

In short, the County tries to make something of nothing. Its argument is pure sophistry.[7]

III. EXIGENT CIRCUMSTANCES

The Commission's May 16 Order defined the equities to be balanced in determining the existence of exigent circumstances.[8] Suffolk County simply fails to address most of the considerations set forth in the Commission's Order. Of the six considerations, Suffolk County addresses only two. New

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[7] The Commission's May 16 Order did not mention the necessity for seeking an exemption from any other GDC. Yet, had the Commission thought that other exemptions were necessary, it surely would have made that point. Both in its May 4 filing and in its oral argument before the Commission, the County made the same argument it makes here concerning the need for an exemption from other general design criteria. The Commission only required LILCO to address the need for an exemption from GDC 17.

[8] Suffolk County suggests at p. 28 of its Brief that the Commission's precedents require LILCO to demonstrate exigent circumstances. This is not the case, however. Precedents, such as Washington Public Power Supply System (WPPSS Nuclear Project Nos. 3 & 5), CLI-77-11, 5 NRC 719 (1977) involve exemption requests under §50.12(b). See also September 5 Order at 5, quoting Staff paper to NRC ("The concept of exigent circumstances had previously been considered a factor only in exemptions granted pursuant to 10 CFR §50.12(b). . . .").

York State addresses none. Instead, the County attempts to posit additional irrelevant considerations. Following is a discussion of each of the applicable considerations and those addressed by Suffolk County.

A. Stage of the Facility's Life

The evidence shows without contradiction that the Shoreham plant is complete and ready for fuel load. (LILCO Brief at 44). The Staff agrees. (Staff Proposed Finding 49). The Intervenors propose no findings to the contrary. This "equity" therefore weighs in favor of granting the exemption.

B. Financial or Economic Hardships

The evidence again shows without contradiction that LILCO is suffering economic and financial hardship which could be alleviated to a certain extent by the grant of this exemption. See LILCO's Brief at 45-47. While the Intervenors do not address alleviation of LILCO's financial hardship, they do discuss LILCO's financial hardships in detail, however. The only possible relevance of such evidence is to the "financial hardships" consideration suggested by the Commission; the Board has repeatedly and consistently ruled that financial

qualifications are immaterial. E.g., Order Regarding Discovery Rulings, June 27, 1984; see LILCO Brief at 55. Significantly, there is no attempt to refute Anthony Nozzolillo's testimony that the granting of this exemption would send a positive signal to the financial markets, thus beginning to alleviate LILCO's financial hardships. Accordingly, this "equity" must also weigh in favor of granting the exemption.

C. Internal Inconsistencies in the Regulations

The Intervenors fail to address the internal inconsistencies in the regulations. The Staff contends there are no internal inconsistencies, but its position results only from the Commission's May 16 Order which ruled that GDC 17 and 10 CFR § 50.57 need not be harmonized. There can be little doubt that the regulations are, at best, ambiguous and, at worst, inconsistent as shown by the Staff's previous position in this proceeding and this Board's earlier decision. (See LILCO Brief at 47-50, September 5 Order). Moreover, there is little doubt that LILCO is being treated inconsistently from other applicants. See September 5 Order at 7, 10. The Staff does not argue otherwise. Accordingly, this "equity" also weighs in favor of granting the exemption.

D. LILCO'S Good Faith Effort to Comply With GDC 17

There can be no genuine dispute that LILCO has made a good faith effort to comply with GDC 17. There is no question that LILCO bought TDI diesels designed to comply with GDC 17, engaged in substantial efforts to test and study those diesels, acquired Colt diesels in an effort to comply with GDC 17 if the TDI diesels are not licensed, and installed at the site EMD diesels and a 20 MW gas turbine for use during low power testing. As the Staff Proposed Finding 58 says:

> [i]t is uncontroverted on this record that LILCO in fact took a number of steps over a period of years that were intended to result in an onsite power source in compliance with GDC 17; although the utility is seeking a limited exemption from GDC 17 (for the period of low power operation), the record also shows that LILCO is continuing its efforts to achieve compliance with GDC 17.

Suffolk County challenges this conclusion in three ways. (Suffolk County Brief at 43-47). First, it asserts that Brian McCaffrey lacked the necessary personal knowledge to testify concerning LILCO's efforts. Yet, McCaffrey has been LILCO's Project Engineer and Manager of Engineering and Licensing. In these positions, he has been familiar with LILCO's efforts to have qualified diesels. (E.g. Tr. 1423, 1425-29, 1431, McCaffrey).

Second, Suffolk County emphasizes the existence of a number of isolated instances in which hindsight suggests that an alternate course of action might have proved beneficial Suffolk County simply misinterprets the Commission's Order which spoke of a "good faith effort" to comply with the regulation. The Commission did not require perfection. The fact that different decisions or different actions might possibly have yielded better results is not germane. Indeed, it defies common sense to contend that LILCO has not attempted to comply with GDC 17 given its extraordinary efforts in this regard. (See LILCO's Brief at 50-53.)

Third, Suffolk County contends that it was unfair not to admit the Hubbard and Bridenbaugh testimony. (Suffolk County Brief at 47-48). The County, however, overlooks two fatal flaws in that testimony. Hubbard and Bridenbaugh were unqualified to talk about diesel generators in that neither had any experience with diesel generators. (Tr. 2175-80, Bridenbaugh, Minor). And, as the Board ruled, their testimony was not relevant to the issue of good faith. They did not even attempt to address the issue of good faith, but simply talked of numerous isolated instances where their opinions differed as to actions that could have been taken.

In short, LILCO's good faith effort to comply with GDC 17 tips this fourth "equity" in favor of granting the exemption.

E. Public Interest in Adherence to Regulations

Given the demonstrated safety of low power testing as proposed by LILCO, there is no public interest in strict adherence to the regulation. The NRC Staff agrees. (Staff Proposed Finding 59).

The Intervenors argue that public interest requires adherence to the regulations, but they point to no facts in support. Instead, they contend that merely because they oppose the exemption, the public interest will not be served by granting it. They would have this Board rule that they are the arbiters of the public interest. Yet, it is the Board that is empowered to make such findings based only on evidence, not the mere appearance of parties in the case.

Intervenors also rely heavily on the limited testimony of Richard Kessel. Indeed, Suffolk County's Brief and the Joint Proposed Findings have quoted virtually every admitted line of Kessel's testimony. That testimony is not reflective of the public interest, however. Kessel had no

expertise permitting the expression of the opinions in his testimony and those opinions find no factual support in the record. Moreover, the opinions are simply irrelevant. (LILCO Reply Findings 125, 136, 138).

Kessel attempted to testify in three areas. First, he opined that the public interest was not served by contaminating a nuclear facility given the uncertainties as to whether the facility would ever receive a full power license. The Board and the Commission have repeatedly found this consideration irrelevant. (E.g., Tr. 2145-46; see LILCO Brief at 54.)[9] Low power testing will occur either pursuant to this exemption or as soon as qualified onsite diesel generators are licensed. Neither case is dependent upon the granting of a full power license or resolution of issues attendant to full power licensing.

Second, Kessel opined that LILCO was not financially qualified to operate Shoreham. Again, the Board has consistently ruled this to be an immaterial consideration based on the Commission's regulations. (E.g., Order Regarding

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[9] Despite these repeated rulings, New York State spends one-third of its brief arguing that the exemption should not be granted because of uncertainties having nothing to do with low power operation.

Discovery Rulings, June 27, 1984; see LILCO Brief at 55). And again, this has no relevance to the exemption since LILCO will have the authority to engage in low power testing once diesels are licensed regardless of its financial condition.

Third, Kessel argued that there has been a decline in LILCO's service which would further deteriorate given alleged increased costs of low power testing. Not only has the Board previously ruled that such a consideration is irrelevant (Tr. 2146), but Kessel had absolutely no expertise or facts from which to conclude that there might be increased costs attendant to low power testing. (See LILCO Reply Findings 139, 141). Kessel has never been employed by a utility, has never worked at a nuclear plant, has no managerial experience with private enterprise and no training in engineering. (Tr. 2881-83, Kessel).

In sum, despite the Intervenors' irrelevant arguments to the contrary, this "equity" also weighs in favor of granting the exemption.

F. Safety Significance of the Issues Involved

The Intervenors also do not address this "equity" per se. They do, however, suggest that since safety related equipment is involved, an exceptional showing must be made to justify the exemption. (Suffolk County at 25-28). The mere involvement of safety related equipment, of course, does not alter the requirements for an exemption. It is those requirements set forth in § 50.12(a) and the Commission's May 16 Order which LILCO has addressed.

Suffolk County's reliance on United States Department of Energy (Clinch River Breeder Reactor Plant), CLI-82-23, 16 NRC 412, 419 (1982) is misplaced. There the Commission simply refused to grant an exemption allowing construction of safety related equipment without completing hearings concerning the equipment. In contrast, exhaustive hearings have been held about LILCO's proposed low power testing. The Board will not be acting without information. Thus, the reasons underlying Clinch River do not apply here.[10]

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[10] Notwithstanding the County's claim to the contrary (Suffolk County Brief at 26), the NRC regularly grants exemptions from safety related requirements. (E.g., 49 Fed. Reg. 4164 (1984) (exemption from portions of leak testing requirements for the primary containment); 49 Fed. Reg. 5005 (1984) (exemption from fire protection requirements involving safety related equipment such as HPCI, RHR and core spray systems).

G. Burden of the Hearing Process

As Brian McCaffrey testified, LILCO has been enmeshed in a licensing proceeding that has dragged on for over eight years (LILCO Proposed Finding 178). It has involved massive discovery and protracted licensing hearings (LILCO Proposed Findings 179-183). The process has placed extraordinary demands on LILCO in terms of both time and resources. For example, there have been almost 15,000 pages of prepared testimony over 180 days of evidentiary hearings held and more than 34,000 pages of transcript accumulated. To date, the proceeding has cost LILCO more than $33 million. (LILCO Proposed Findings 184-85). In short, LILCO has been subjected to one of the most protracted licensing proceedings in NRC history. (Tr. 1729, McCaffrey). If LILCO's proposal raises no safety concerns, and it does not, this additional equity weighs in favor of granting the exemption.

The County's primary response to McCaffrey's testimony is that the licensing process was conducted in accordance with the NRC's regulations. (Suffolk County Brief at 34-35, 38-39). This criticism misses the point. Notwithstanding that the process has followed NRC regulations, the record clearly demonstrates that this proceeding has imposed extraordinary burdens on LILCO. It is appropriate to

recognize this equity in deciding whether to expedite low power testing.[11]

H. Other Considerations Suggested by Suffolk County

Suffolk County's Brief suggests for the first time in this proceeding that there are two additional factors which ought to be considered in weighing the equities attendant to a finding of exigent circumstances. These are not factors listed in the Commission's May 16 Order and they have no relevance here.

First, Suffolk County suggests that the need for power from Shoreham is a pertinent consideration. In support, the County cites United States Department of Energy (Clinch River Breeder Reactor Plant), CLI-83-1, 17 NRC 1, 4 (1983) and Washington Public Power Supply System (WPPSS Nuclear Project Nos. 3 & 5), CLI-77-11, 5 NRC 719 (1977). Both cases dealt

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[11] Suffolk County also complains that McCaffrey's testimony is without any factual basis and is merely opinions. (Suffolk County Brief at 35-37). The County, however, ignores McCaffrey's extensive licensing experience which permits him to offer expert opinions on the matters in his testimony. (Tr. 1418-21, 1700-01, 1731-A to 1731-C, McCaffrey). In addition, a review of the pertinent portions of the record show that the County is incorrect in its assertions that there was no basis in fact for McCaffrey's testimony. (See LILCO Reply Finding 107).

with requests for exemptions from the requirement of section 50.10(c) that a construction permit be granted before construction activities commence. Neither dealt with exemptions sought for a completed plant. The difference is substantial. In deciding whether to build a plant, the need for power from the reactor may be a legitimate concern. Section 50.12(b), which specifically deals with exemptions permitting the conduct of activities otherwise prohibited by § 50.10 prior to the issuance of a construction permit, expressly allows consideration of "the power needs to be [served] by the proposed facility." In contrast, 10 CFR § 51.53(c) states that:

> Presiding officers shall not admit contentions proffered by any party concerning need for power or alternative energy sources for the proposed plant in operating license hearings.

In short, the need for power is not a legitimate consideration.[12]

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[12] Even were the need for power a legitimate consideration, the record does not support Suffolk County's claim that there is no present need for Shoreham's power. Suffolk County relies totally on the Marburger Commission Report for this conclusion. (Suffolk County Brief at 29-30). The Marburger Report was not admitted as substantive evidence, however. There was no witness capable of discussing it or whom could be cross

(footnote continued)

The second factor suggested by Suffolk County is equally irrelevant. Suffolk County suggests that the Board ought to consider whether there is alternate relief available to LILCO. The County relies on WPPSS. (Suffolk County Brief at 30-31). Again, however, WPPSS involved a request for an exemption from § 50.10(c) to begin pre-construction permit activities. Already pending before the Licensing Board in that proceeding was a request for a limited work authorization. The utility, not wanting to wait for the Licensing Board's decision, sought an exemption directly from the Commission. The Commission observed that the Licensing Board was more suited for fact-finding activities and that the LWA proceeding pending before the Board was the proper way to resolve the matter. 5 NRC at 722-24. The case obviously has no bearing

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(footnote continued)

examined about its content. It was only introduced for impeachment purposes concerning the testimony of Brian McCaffrey on the burden of the licensing proceedings. Thus, it cannot be relied upon for a substantive finding about the results of the report on an unrelated matter. Moreover, McCaffrey testified that the portions of the Report relied upon by the County were incomplete and that a review of accompanying opinions was necessary to understand the report. (See LILCO Reply Finding 109). The only substantive evidence concerning the need for power was that of Richard Kessel who admitted that New York State's Energy Master Plan called for Shoreham to come on line to provide electricity for New York State. (LILCO Reply Finding 137).

here given the procedural posture of this exemption proceeding. This proceeding is pending in front of a Licensing Board, which is the primary fact-finding arm of the Commission. Additionally, the Commission did not establish any such consideration in its May 16 Order, although it certainly could have.

Even if the availability of alternative relief were a proper consideration, factually it would not weigh against granting the exemption here. The County suggests that the pendency of the TDI licensing proceedings gives LILCO another path to low power testing. But the County ignores that the very purpose of the exemption is to save time so that the completion of TDI licensing proceedings need not be awaited. By definition, therefore, the same objective cannot be served by awaiting completion of those proceedings.

IV. PUBLIC INTEREST IN GRANTING THE EXEMPTION

Section 50.12(a) requires that any exemption be "otherwise in the public interest." This provision does not, however, add a third burden to LILCO as Suffolk County suggests. The exigent circumstances considerations set forth in the Commission's May 16 Order comprise the components of the

public interest consideration as the Commission then perceived it. See United States Department of Energy (Clinch River Breeder Reactor Plant), CLI-82-23, 16 NRC 412, 422-26 (1983).[13] By addressing the exigent circumstances as set forth in the Commission's May 16 Order and by demonstrating that the equities weigh in favor of granting the requested exemption, LILCO has demonstrated that the exemption will be in the public interest. Nevertheless, while 50.12(a) and the May 16 Order do not require that a separate public interest showing be made, LILCO has demonstrated that the public will be benefited in three other respects. They are further addressed briefly below in addition to the discussion in LILCO's Brief at 56-66.

A. Additional Training Benefits

Suffolk County fails to rebut LILCO's evidence that there will be additional training benefits if this exemption is granted. Suffolk County does not contend that the training

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[13] In Clinch River, the Commission noted that the exigent circumstances required to be considered by § 50.12(b) provided more detailed regulatory guidance regarding the content of the "public interest" criteria in § 50.12(a) as they apply to request for exemptions from 10 CFR § 50.10(c). 16 NRC at 422. Similarly in CLI-84-8, in detailing the exigent circumstances considerations, the Commission was outlining the public interest inquiry it wished to consider.

benefits do not exist. Instead, the County argues that the benefits are minimal. As demonstrated by the evidence, however, the training will run into hundreds of manhours and will allow substantial additional flexibility. (LILCO Proposed Findings 186-90). Thus, whether one characterizes the additional training opportunities as extensive or not, they exist and they will be beneficial. There is no adverse consequence weighing against them.

Suffolk County further argues that the additional training benefits should not be considered because if they are necessary, they should be a mandatory part of the low power test program. This argument is nonsensical. A certain level of training is required to attain assurances of safety. That level of training is built into the low power test program. That does not mean, however, that additional training would not be beneficial, though not necessary. Certainly there will be no detriment from such training and the public may benefit from it.

B. Earlier Reduction of Dependence on Foreign Oil

Neither Suffolk County's nor New York's Briefs nor the Joint Proposed Findings dispute that LILCO is heavily

dependent on foreign oil and that the public would benefit by reducing that dependence. Instead, Suffolk County contends that this public benefit ought not to be considered. (Suffolk County Brief at 18-23.)

First, the County argues that Cornelius Szabo was not persuasive because he failed to testify in conclusory terms about the "public interest." The County complains that Szabo testified about facts, not conclusions. The County's aversion to such testimony is understandable, given the totally conclusory nature of the Intervenors' testimony. Nevertheless, its criticism is not well founded. Witnesses testify about facts. Szabo did so without contradiction. It is then the province of the Board to assess those facts and make an evaluation of the public interest. No individual witness is qualified to do that.

Second, Suffolk County contends that the benefit ought not to be considered because there will be no savings of oil during low power testing. LILCO never claimed that there would be. Instead, LILCO's testimony showed that there would be a benefit from earlier commercial operation of the plant which, in turn, might result from the grant of this exemption.

There is no dispute that the earlier commercial operation of Shoreham will save millions of barrels of oil and resultingly save approximately $16.7 million a month. (LILCO Proposed Finding 217).

Third, Suffolk County contends that the postulated benefit is speculative. This claim has two aspects. In one respect, the County contends that it is not certain that Shoreham will operate three months earlier as a result of the exemption. That is true. Nevertheless, granting the exemption certainly affords an opportunity for a three month earlier operation. Denial of the exemption completely forecloses that possibility. The other aspect of this argument is that the availability and price of oil in 1985 is speculative. Suffolk County argues that because Szabo could not predict with certainty that there would be a disruption in supply or a cutoff, that there would be no benefit. Suffolk County clearly misses the point, however. LILCO acknowledges that there are a number of uncertainties. There may be no disruption in the supply of oil. But, as Szabo established without contradiction, there is the potential for such a disruption. (LILCO Reply Finding 119). It is the removal of these uncertainties that is in the public interest. Continued dependence on foreign oil means continued dependence on the

uncertain oil supply which is beyond the control of the United States and subject to the control of foreign powers. This is not in the public interest.

C. Economic Benefit to LILCO's Customers

LILCO's evidence established, through the testimony of Anthony Nozzolillo, that if Shoreham reaches commercial operation three months earlier as a result of the requested exemption, there will be a savings to the ratepayer on the order of $8 to $45 million over the years 1985 through 2000. (LILCO Proposed Findings 209-17). In response, Suffolk County contends that the claimed public benefit is speculative since it is contingent upon eventual commercial operation of Shoreham. As with the benefit from reducing dependence on foreign oil, however, future uncertainty about Shoreham's commercial operation does not negate the potential for public benefit. If granting the exemption permits earlier commercial operation, the public will benefit by millions of dollars in rates saved. Without the exemption, it is certain that a three month earlier commercial operation will not be achieved and there will be no public benefit. A potential public benefit is better than no benefit at all.

Suffolk County further contends that it is unfair to allow testimony about potential benefits from earlier commercial operation but disallow testimony concerning alleged uncertainties as to whether Shoreham will ultimately be licensed for full power. While this argument may be superficially appealing, it has no merit. There is no unfairness because the uncertainties are not unique to the requested exemption. As LILCO has stated many times before, it will have the right to engage in low power testing once onsite diesel generators are licensed. That right will exist regardless of resolution of emergency planning issues attendant to full power operation. Granting this exemption to accelerate low power testing does not increase the uncertainties or change them in any way. Thus, there is no detriment from granting the exemption; only a potential benefit by accelerating early commercial operation. As importantly, the Commission has twice ruled that potential uncertainties concerning an operating license for full power operation are not proper considerations for a low power license. See supra at 36.

Finally, Suffolk County relies on the testimony of Madan and Dirmeier to argue that early commercial operation would lead to an economic detriment. For the reasons summarized at pages 61-66 of LILCO's Brief, the testimony of

Madan and Dirmeier does not contradict that of Nozzolillo. In fact, Madan and Dirmeier had no independent knowledge of the input into Nozzolillo's models and did not even address the computer runs upon which Nozzolillo based his testimony. The Board will undoubtedly recall how Madan and Dirmeier simply made mistakes in their analysis and, in other instances, attempted to change Nozzolillo's fundamental models so as to deceptively conclude that a detriment existed. (See LILCO Reply Findings 131, 134, 135). There is no detriment as shown by Nozzolillo's analysis and as corroborated by common sense. With costs for the plant escalating, it is not difficult to understand how earlier commercial operation will lead to a lower book cost and earlier fuel savings resulting in a present worth economic benefit to LILCO's customers.

V. PHASES I AND II

On September 5, 1984 the Board approved issuance of a license for Phases I and II of low power testing. Order Reconsidering Summary Disposition of Phase I and Phase II Low-Power Testing. Thus, it is unnecessary to address the Intervenor arguments in detail. Nevertheless, their arguments, which are similar to those presented to the Board in prior filings, are wholly lacking in merit. First, Suffolk County

argues that there is no legal authority to issue such a license. (Suffolk County Brief at 63-64). The County's argument defies both factual and legal precedent. See, September 5 Order at 10; NRC Staff Response to LILCO's Motion for Directed Certification of the Licensing Board's Order Ruling on LILCO's Motions for Summary Disposition of Phases I and II, August 17, 1984, at 5, n.4 (concerning Duke Power Company's Catawba Station); see also Pacific Gas and Electric Company (Diablo Canyon Nuclear Power Plant, Units 1 and 2), CLI-83-27, 18 NRC 1146, 1149 (1983); Virginia Electric and Power Company (North Anna Power Station, Units 1 and 2), LBP-77-64, 6 NRC 808, 814 (1977); 10 CFR § 50.57(c) ("authorizing low power testing (operation at not more than 1 percent of full power for the purpose of testing the facility), and further operations short of full power operation." (emphasis added)).[14]

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[14] The County's argument that fuel load and precriticality licenses are not "operating licenses" strains credulity. Fuel loading and precriticality testing must be either part of "construction" or "operation." If not, this activity need not be licensed. Surely Suffolk County does not so contend. If, on the other hand, Suffolk County contends that fuel loading and precriticality testing are simply part of the construction phase and are authorized by LILCO's construction permit, then no further license would be needed and LILCO could engage in those activities now.

The County also argues that its security concerns may affect Phases I and II. Suffolk County Brief at 64. Suffolk County does not, and cannot, contend that the EMD diesel generators or the 20 MW gas turbine ought to be considered vital equipment for Phases I and II. It has been conclusively established that they are not needed for any purpose. (See September 5 Order at 8-10). Instead, Suffolk County suggests incongruously that no license can issue because full security implementation must be in effect for Phases I and II. LILCO does not dispute this contention. Simply, LILCO has an approved security plan which is and will be in effect for Phases I and II. As the Board implicitly recognized in its September 5 Order, resolution of security contentions is no cause for delay of a Phase I and II license.

VI. CONCLUSION

The Intervenors have attempted to erect procedural hurdles which are not supported by law. They have disregarded virtually all of the cross-examination of their own witnesses and have often mischaracterized the record. They have simply failed to address many relevant considerations. Overall, they have failed to present this Board with any legitimate reason why the exemption should not be granted. In contrast, both

LILCO and the NRC Staff have demonstrated the safety of the proposed operation, as well as exigent circumstances warranting the granting of the exemption. Accordingly, this Board should issue a decision as soon as practicable finding that a license to conduct Phases III and IV of the proposed low power testing should be issued as soon as any admitted security contentions are resolved favorably to LILCO.

Respectfully submitted,

LONG ISLAND LIGHTING COMPANY

By _____
Robert M. Rolfe
Anthony F. Earley, Jr.
Jessine A. Monaghan

Hunton & Williams
Post Office Box 1535
Richmond, Virginia 23212

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