

UNITED STATES OF AMERICA  
NUCLEAR REGULATORY COMMISSION

Before the Director, Office of Nuclear Reactor Regulation

In the Matter of )  
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LONG ISLAND LIGHTING COMPANY )  
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(Shoreham Nuclear Power Station, )  
Unit 1) )  
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) Docket No. 50-322  
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**Long Island Lighting Company's Request for an Exemption from  
the Emergency Preparedness Requirements of 10 C.F.R. § 50.54(q)**

**I. Introduction**

Pursuant to 10 C.F.R. § 50.12, Long Island Lighting Company (LILCO or the Company) hereby requests an exemption from the emergency preparedness requirements of 10 C.F.R. § 50.54(q) for the Shoreham Nuclear Power Station (Shoreham). LILCO is submitting this exemption request in conjunction with its application for an amendment to its operating license, NPF-82, by which LILCO seeks to suspend the effect of conditions C.(9) through (13), relating to offsite emergency preparedness, in NPF-82. This exemption, if granted, will enable the NRC to approve LILCO's license amendment request and will allow the Company (1) to implement its Defueled Emergency Preparedness Plan, in place of the current onsite emergency plan, and (2) to disband the Local Emergency Response Organization (LERO) and cease all offsite

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emergency planning and preparedness activities for Shoreham.<sup>1/</sup>

Two overriding considerations justify the exemption. First, under the Settlement Agreement between itself and New York State, LILCO is contractually prohibited from ever operating Shoreham. Under the Settlement Agreement, LILCO will maintain the plant in its present defueled condition and will seek to transfer Shoreham to the Long Island Power Authority (LIPA). Second, given the plant's defueled configuration and the low burnup condition of the fuel, no credible accident can occur that would require an offsite emergency response. Indeed, LILCO has determined that, with the fuel in the fuel pool, an Emergency Classification Level above an "Alert" can be reached only in extremely limited circumstances.

In short, it is not credible for an accident to occur that would require an offsite emergency response. Thus, application of the full range of the NRC's emergency preparedness regulations to Shoreham is not necessary to achieve the underlying purpose of those regulations. Further, LILCO's maintenance of LERO at the cost of

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<sup>1/</sup> The regulation from which LILCO seeks an exemption, 10 C.F.R. § 50.54(q), provides, in relevant part, that a

licensee authorized to possess and/or operate a nuclear power reactor shall follow and maintain in effect emergency plans which meet the standards in § 50.47(b) and the requirements in Appendix E to this part.

Section 50.47(b), which is incorporated by reference in § 50.54(q), provides that both offsite and onsite emergency plans must meet the standards specified in subparagraphs (1) through (16) of § 50.47(b). With respect to offsite emergency preparedness, an exemption from § 50.54(q) is necessary because, with the elimination of LERO and the cessation of offsite planning for Shoreham, LILCO will no longer meet the 16 emergency preparedness standards that are listed in § 50.47(b) and amplified in 10 C.F.R. Part 50, Appendix E, ¶ IV. With respect to onsite preparedness, an exemption is necessary because, given certain changes associated with the implementation of the Defueled Emergency Preparedness Plan, LILCO will no longer meet the standards specified in § 50.47(b)(3), (5), and (7). The changes involved in the implementation of the Defueled Emergency Preparedness Plan are described on pages 8-11 below.

approximately \$7 million annually, and the conduct of related activities such as a FEMA-graded exercise (preparation for which cost LILCO approximately \$5 million in 1988) -- with no resulting benefits to LILCO ratepayers -- imposes an undue burden on them. In such circumstances, the requested exemption is fully justified.

## II. Background

In order for LILCO's exemption request to be properly assessed, the request must be considered in the context of (1) LILCO's obligations under the Settlement Agreement with New York State, (2) Shoreham's present defueled condition and the probability and consequences of an accident given the plant's defueled state and the low burnup of the fuel, and (3) LILCO's plans for maintaining an adequate level of emergency preparedness in light of the probability and consequences of an accident.

### **A. Under the Settlement Agreement, LILCO Will Never Operate Shoreham**

On April 21, 1989, the NRC issued Facility Operating License No. NPF-82 to LILCO, authorizing full power operation of Shoreham. Prior to the time the NRC issued the full power license, LILCO had entered into a Settlement Agreement with New York State, pursuant to which the Company agreed not to operate Shoreham. The Settlement Agreement required the approval of certain agencies of New York State, LILCO's board of directors, and, finally, LILCO's shareholders.

On June 28, 1989, LILCO's shareholders became the last of these groups to approve the Settlement Agreement, and it became effective and legally binding. Under the Settlement Agreement, LILCO is contractually committed never to operate Shoreham.<sup>2/</sup> Further, under the Settlement Agreement, LILCO will apply to the NRC

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<sup>2/</sup> Specifically, the Settlement Agreement provides that LILCO "will not operate Shoreham pursuant to any authorization to operate Shoreham that may or has been

for permission to transfer Shoreham to LIPA.

On July 14, 1989, LILCO began transferring fuel from the Shoreham reactor to the spent fuel pool. Defueling was completed on August 9, 1989. The Company will maintain Shoreham in this defueled condition until it is allowed by the NRC to transfer the facility to LIPA. In sum, as long as LILCO is the licensee of Shoreham, the plant cannot and will not be operated.

**B. An Accident Requiring an Offsite Response Is Not Credible at Shoreham, and the Emergency Classification Level Cannot Exceed an Alert Except in Extremely Limited Circumstances**

LILCO has performed a Radiological Safety Analysis for Spent Fuel Storage and Handling ("Safety Analysis"), which assesses the radiological consequences of accidents associated with Shoreham in its present defueled configuration. The Safety Analysis is Attachment 3 to LILCO's submittal. The Safety Analysis makes clear in a number of ways that, from the standpoint of the public health and safety, LILCO's exemption request is appropriate and should be granted.

First, the Safety Analysis calculates the burnup condition of Shoreham's spent fuel, revealing that the fuel has a burnup history that is approximately two effective days of full power operation.<sup>3/</sup> The Oak Ridge National Laboratory Computer Code

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(continued from previous page)

granted by the Nuclear Regulatory Commission . . . ." The Company has also entered into an Amended and Restated Asset Transfer Agreement (Transfer Agreement) with LIPA concerning the operation and transfer of Shoreham. Similar to the Settlement Agreement, the Transfer Agreement provides that LILCO will not operate Shoreham pursuant to any authorization that may be or has been granted by the NRC. Transfer Agreement at ¶ 5.1. The Transfer Agreement further provides that "[n]otwithstanding the termination of [the Transfer Agreement], if the Settlement Effective Date has occurred . . . the covenants [regarding the non-operation of Shoreham] will survive and continue to be fully enforceable." *Id.*, at ¶ 9.1.

<sup>3/</sup> Specifically, the plant has been operated at power levels not exceeding 5% of rated power (128 megawatts thermal) on three separate occasions for a total of 131 days. See Safety Analysis at III.A-1.

ORIGEN2 was used to calculate the spent fuel's decay heat, or thermal power (in watts), as a function of time. The calculated decay heat load as of June 1989 was negligible -- approximately 550 watts. See Safety Analysis at III.B-1. Because of this low heat generation rate, LILCO has determined that systems for active cooling in the fuel pool are not required, that only the most minimal capacity systems are required for pool makeup to handle evaporation, and that passive cooling in the fuel pool would be adequate to preserve fuel cladding integrity.<sup>4/</sup>

Second, the Safety Analysis indicates that Shoreham's spent fuel contains only limited quantities of radioactive materials that are available for release in the event of an accident. The Safety Analysis calculates that as of June 1989 approximately 176,000 curies of radioactivity remain in the 560 fuel assemblies and that the total gaseous activity is primarily Krypton-85, consisting of 1560 curies. Thus, Krypton-85, which has a half-life of 10.7 years, is the only isotope in the fuel that exists in significant quantities and is available for release in gaseous form during a postulated accident. Other sources of radioactivity outside the plant core are minor. See Safety Analysis at III.A-1 and Table III.A-1.

Third, the Safety Analysis reviews the spectrum of accidents previously examined in Chapter 15 of Shoreham's Updated Safety Analysis Report (USAR) and identifies those accidents that apply to the storage and handling of Shoreham's fuel. Of the various accidents assessed in the USAR, two were found to be relevant to

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<sup>4/</sup> The Safety Analysis indicates that, even in the event of a postulated "worst case" accident, the maximum evaporation rate from the pool would be less than one gallon per minute. This translates into a pool level depletion rate of one foot per 11 days. See Safety Analysis at III.C-1. Pursuant to Shoreham's Technical Specifications (NUREG-1357), the water level above the stored fuel is kept at 21 feet or more. NUREG-1357, § 3.9.9. Thus, under "worst case" conditions and without any pool makeup, it would take several months for the water level to drop below the top of the stored fuel bundles.

Shoreham in its defueled condition: (1) Fuel Handling Accident (USAR § 15.1.36) and (2) Liquid Radwaste Tank Rupture (USAR § 15.1.32). In addition, other "worst case," enormously conservative accident scenarios were examined in which release of the total gaseous inventory of the fuel was assumed. The Safety Analysis indicates that, even for these "worst case" accidents (involving large scale mechanical damage to the fuel), the resulting radiological exposure would be far below the applicable dose limits for the Exclusion Area Boundary (EAB) and Low Population Zone (LPZ) boundary set by 10 C.F.R. Part 100. See Safety Analysis at III.E-14.<sup>5/</sup>

These results make it evident that with Shoreham in its defueled state, it is not credible for an accident to occur with radiological consequences requiring an offsite emergency response.<sup>6/</sup> Indeed, LILCO has determined that, with Shoreham defueled,

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<sup>5/</sup> Specifically, the Safety Analysis indicates that, even with the highly conservative release quantity postulated by the "worst case" scenarios, the integrated whole body and skin doses at the EAB and LBZ boundary are less than .031% of the dose limits established by 10 C.F.R. Part 100. See Safety Analysis at I-2. For the Fuel Handling Accident scenario, the Safety Analysis calculates that the integrated whole body and skin doses are less than .00005% of the 10 C.F.R. Part 100 limits. *Id.* With respect to the Radwaste Tank Rupture scenario, the integrated whole body, skin, and maximum organ (lung) doses are less than .0000004% of the 10 C.F.R. Part 100 limits. *Id.* As the Radwaste Tank Rupture event involves the inhalation pathway, whole body and organ doses are age-group dependent. The "child" is limiting for whole body, and the "teen" is limiting for the maximum organ.

<sup>6/</sup> Based upon a review of the Shoreham USAR, LILCO has reevaluated the credible events that could cause an offsite radioactive release. These are essentially all accidents that would result in mechanical damage to the stored fuel. The releases associated with these accidents were determined to be so low that maintaining emergency planning at its current level is not warranted. The consequences of extraordinary events such as fire and sabotage were not quantified, but these events are mitigated by the fact that LILCO will continue to maintain its physical security plan and its fire protection plan. *Cf.* 53 Fed. Reg. 36955, 36958 (Sept. 23, 1988) (in amending emergency planning regulations for fuel loading and low power testing, Commission states that "[w]hile the risk from terrorism or sabotage cannot be quantified, it is the Commission's judgment that compliance with [the NRC's requirements for physical protection plans] will reasonably assure that the risk from terrorism or sabotage at low power is sufficiently low so as not to undercut the conclusion that low power safety risks to the offsite public are relatively low"). In addition, *ad hoc* offsite emergency response measures using state and local resources will be available to further mitigate the potential consequences of such extraordinary events. See note 12 below.

it is possible to exceed the "Alert" Emergency Classification Level (ECL) only in extremely limited circumstances. Specifically, LILCO has assessed the Emergency Action Levels (EALs) classified in Emergency Preparedness Implementing Procedure (EPIP) 1-0 in light of Shoreham's present defueled condition and has identified five situations where the Alert ECL, as currently written in EPIP 1-0, can still be exceeded: Site Area Emergency (SAE) No. 6 and No. 7, SAE No. 11, SAE No. 14, and General Emergency (GE) No. 3. As explained below, however, in each case, LILCO has determined that (1) based on the Safety Analysis, there are no radiological consequences associated with such an event that would require an offsite response, or (2) the initiating conditions for the event are based on such extraordinarily remote or implausible circumstances that maintenance of offsite emergency preparedness solely in anticipation of such incredible circumstances is unjustified.<sup>7/</sup>

First, SAE No. 6 and No. 7, which involve, respectively, the loss of offsite power and onsite AC power, and all vital onsite DC power for more than 15 minutes, would have no radiological consequences for Shoreham in its defueled state. As is noted in the Safety Analysis, because of the very low heat generation rate of Shoreham's fuel and the large thermal capacity of the fuel pool, the loss of normal cooling and makeup systems due to a power failure would result in an extremely slow evaporation of the fuel pool water. Given such a slow evaporation rate, ample time would exist to restore normal pool makeup sources. See Safety Analysis at III.E-2.

Second, SAE No. 11, which is initiated by the "[o]bservation of [a] major fire that reduces the capability of safety systems functions," is similarly insignificant.

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<sup>7/</sup> Upon grant of the requested exemption and permission to implement the Defueled Emergency Preparedness Plan, LILCO intends to revise EPIP 1-0 by reclassifying these four events to reflect the greatly lessened risk associated with Shoreham's defueled condition.

While the fuel pool cooling system is classified as a safety related system, the Safety Analysis establishes that because of the negligible decay heat generated by Shoreham's fuel, even the complete loss of fuel pool cooling would have no health and safety consequences offsite.

Finally, SAE No. 14 and GE No. 3, which are triggered by a physical attack on the plant involving the imminent or actual occupation of the plant's vital areas, are incredible events of extremely remote probability, particularly given that LILCO will continue to maintain its physical security and fire protection plans. See note 6 above.

**C. LILCO Will Maintain a Level of Emergency Preparedness that Is Commensurate with the Risks Associated with Shoreham in its Defueled Condition**

Upon grant of the requested exemption, the Company intends to maintain a level of emergency preparedness that is commensurate with the lessened risks associated with a defueled Shoreham. Accordingly, while Shoreham is in a defueled condition, in place of its existing onsite emergency plan, LILCO will implement the Defueled Emergency Preparedness Plan (DEPP), which is Attachment 4 to LILCO's submittal. In conjunction with implementation of the DEPP, LILCO will also disband LERO and cease all offsite emergency planning and preparedness activities for Shoreham.

The changes that LILCO proposes to make in emergency preparedness reflect the fact that, with Shoreham in its present defueled condition, no credible accident can occur that would require an offsite emergency response. Implementation of the DEPP will alter emergency preparedness for Shoreham in the ways described below.

First, the Emergency Operations Facility (EOF), located at LILCO's training facility in Hauppauge, New York will be eliminated. The pertinent NRC guidance, NUREG-0696, "Functional Criteria for Emergency Response Facilities," provides that

activation of the EOF is not required until a Site Area Emergency or higher ECL is reached.<sup>8/</sup> Since, as has been noted, the Alert ECL can be exceeded at Shoreham only in extremely limited circumstances that involve no credible radiological risk, no need exists for the EOF. Under the DEPP, the Response Manager will report to and carry out his response functions at LILCO's Corporate Information Department (CID) in Hicksville, New York.

Second, the Emergency News Center (ENC) will no longer be located at LILCO's Hauppauge training facility. Instead, the CID will serve as the ENC for Shoreham. The CID currently functions as LILCO's news center for nonradiological emergencies (such as severe storms), and this change will consolidate the two centers. The smaller CID facility is adequate for Shoreham, given the reduced number of news media personnel that would likely have to be accommodated in the event of any incident involving the plant in its defueled condition.

Third, under the DEPP, a radiation chemistry technician and health physics technician will no longer be maintained on shift at the plant. This change is permitted by Shoreham's Technical Specifications, which do not require LILCO to have a radiation chemistry technician on shift, and which state that "[a] Health Physics Technician shall be on site when fuel is in the reactor." NUREG-1357, § 6.2.2.c (emphasis added). Under the DEPP, LILCO will also no longer maintain a Shift Technical Advisor on shift. This change is also permitted by Shoreham's Technical Specifications.<sup>9/</sup>

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8/ NUREG-0696 states that "[a]ctivation of the nearsite EOF is optional for Notification of Unusual Event and Alert Emergency classes, and is required for Site Area Emergency and General Emergency classes." NUREG-0696 at 5 (emphasis added).

9/ Further, LILCO is reducing on shift control room staff by eliminating one reactor operator, one senior reactor operator, and one auxiliary operator. These changes are also permitted under the Technical Specifications with Shoreham in a defueled condition.

Fourth, the DEPP assumes that LILCO will not be using its Prompt Notification (siren) System. Since no credible accident can occur at Shoreham that would require that the public be notified of the need to take any protective actions, there is no need for a siren system. Moreover, with the exception of siren testing (which LILCO announces beforehand in local newspapers), LILCO would never sound the sirens without the public information brochure or similar public information materials having first been distributed. Such materials tell residents of the Shoreham Emergency Planning Zone (EPZ) the meaning of the sirens: i.e., that when they hear the sirens, they should turn on their radios and listen to emergency information being broadcast over the Emergency Broadcast System. Public information materials, however, will not be distributed by LILCO to residents of the EPZ.<sup>10/</sup> Accordingly, the DEPP takes no account of the siren system.<sup>11/</sup>

Finally, the Shoreham Nuclear Power Station Local Offsite Radiological Emergency Response Plan will no longer be maintained, and LERO will be eliminated. As there can be no credible accident at Shoreham resulting in radiological consequences requiring an offsite response, offsite emergency preparedness measures are no longer needed. Thus, the DEPP contains no references to LERO or other LILCO-sponsored

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<sup>10/</sup> The Company has previously stated to the NRC that "LILCO is aware of the need to distribute public information regarding actions to be taken by individuals in the Emergency Planning Zone," and that "LILCO will distribute this information prior to exceeding 5% of rated thermal power." See Letter from John D. Leonard, LILCO Vice President-Nuclear Operations, to Nuclear Regulatory Commission (Apr. 14, 1989) (SNRC-1586). Since Shoreham will remain in its defueled condition for as long as LILCO owns the plant, the Company will not be distributing public information materials.

<sup>11/</sup> Cf. 10 C.F.R. § 50.47(d)(1989); 53 Fed. Reg. 36955, 36957-58 (Sept. 23, 1988) (in amending emergency planning regulations for fuel loading and low power testing to eliminate, inter alia, the requirement that there be an offsite prompt notification system, Commission states that "given the relatively low risk to the public from low power operation, a requirement for prompt notification of the public is far in excess of what is reasonably needed").

offsite emergency planning or response efforts.<sup>12/</sup>

**III. Shoreham's Non-operational Status Provides  
a Sufficient Basis for Granting the Exemption**

The legal standard for obtaining an exemption from specific NRC regulations is provided by 10 C.F.R. § 50.12. The rule uses a two-tier test to determine if a licensee's request for an exemption should be granted. The first tier of the regulation consists of three separate considerations and specifies that the NRC may grant exemptions that are

[a]uthorized by law, will not present an undue risk to the public health and safety, and are consistent with the common defense and security.

10 C.F.R. § 50.12(a)(1).

The second tier of the regulation provides that an exemption request will not be considered unless one or more of six "special circumstances" are present. 10 C.F.R. § 50.12(a)(2)(i)-(vi). Specifically, "special circumstances" are present whenever

- (i) Application of the regulation in the particular circumstances conflicts with other rules or requirements of the Commission; or
- (ii) Application of the regulation in the particular circumstances would not serve the underlying purpose of the rule or is not necessary to achieve the underlying purpose of the rule; or
- (iii) Compliance would result in undue hardship or other costs that are significantly in excess of those contemplated when the regulation was adopted, or that are significantly in excess of those incurred by others similarly situated; or

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<sup>12/</sup> Pending further licensing action, LILCO will continue to maintain its contractual commitments with the Wading River Fire Department and Central Suffolk Hospital to support certain onsite emergency response efforts. In addition, under the DEPP, LILCO will continue to notify Suffolk County and the State of New York of the declaration of an Unusual Event or an Alert. The DEPP assumes that should the County and State wish to notify the public of the incident or take any other actions, they will undertake such a response in an ad hoc fashion, consistent with their obligations under New York State Executive Law Article 2-B. N.Y. Executive Law §§ 20-29-d (McKinney 1989).

(iv) The exemption would result in benefit to the public health and safety that compensates for any decrease in safety that may result from the grant of the exemption; or

(v) The exemption would provide only temporary relief from the applicable regulation and the licensee or applicant has made good faith efforts to comply with the regulation; or

(vi) There is present any other material circumstance not considered when the regulation was adopted for which it would be in the public interest to grant an exemption. . . .

At the threshold, it is evident that LILCO's exemption request satisfies two of the three considerations that make up the initial tier of the § 50.12 standard. First, the action being requested is clearly authorized by law.<sup>13/</sup> Second, granting LILCO's exemption request will have no impact on the "common defense and security" of the United States.<sup>14/</sup>

As a consequence, in determining whether the requested exemption should be granted, the NRC must consider (1) whether there would be any undue risk to the public health and safety, and (2) whether special circumstances exist to justify the exemption. As shown below, LILCO's exemption request satisfies each of these requirements.

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<sup>13/</sup> The NRC has granted exemptions from its emergency preparedness requirements in the past. See, e.g., Carolina Power & Light Co. (Shearon Harris Nuclear Power Plant), CLI-86-24, 24 NRC 769 (1986); see also 51 Fed. Reg. 41035-36 (Nov. 12, 1986) (granting Cleveland Electric Illuminating Company an exemption from the exercise requirement of 10 C.F.R. Part 50, Appendix E for the Perry Nuclear Power Plant, Unit 1).

<sup>14/</sup> The Commission has determined that the phrase "common defense and security," as used in 10 C.F.R. § 50.12(a), refers principally to "the safeguarding of special nuclear material; the absence of foreign control over the applicant; the protection of Restricted Data; and the availability of special nuclear material for defense needs." See Florida Power & Light Co. (Turkey Point Nuclear Generating Station, Units 3 and 4), 4 AEC 9, 12 (1967).

A. Granting the Exemption Will Not Present Any Undue Risk to the Public Health and Safety

Granting LILCO an exemption from the emergency preparedness requirements of § 50.54(q) will not present any undue risk to the public health and safety. As the Safety Analysis reveals, with the reactor defueled and the low burnup fuel stored in the spent fuel pool, there can be no credible accident at Shoreham resulting in any radiological consequences that would require an offsite emergency response. It follows from this that the elimination of LERO and the implementation of the DEPP will not diminish the level of protection provided to the public.

The NRC has recognized that there is a relationship between the level of offsite emergency preparedness that must be maintained for a given facility and the power level at which that facility operates. For instance, in proposing to amend its emergency planning regulations to provide that the NRC need not make any findings on the adequacy of offsite emergency preparedness before authorizing low power (5%) testing, the Commission stated that it was

apparent to the Commission that the emergency preparedness requirements for a low power license need not be as extensive as those requirements for a full power operating license. . . . The Commission's position is that several factors contribute to a substantial reduction in risk and potential accident consequences for low power testing as compared to the higher risks in continuous full power operation.

46 Fed. Reg. 61132 (Dec. 15, 1981). The Commission described these "several factors" as follows:

First, the fission product inventory generated during low power testing is much less than during full power operation due to the lower level of reactor activity and short period of operation. Second, at low power, there is a reduction in the required capacity of systems designated to mitigate the consequences of an abnormal occurrence under full power operation. Third, the time scale for taking actions to identify accident causes and mitigate accident consequences is much longer than at full power. This means the operators should have sufficient time to prevent a release from occurring.

Id. at 61132-33. As has been shown, the Safety Analysis indicates that all three of these factors apply to Shoreham in its defueled state.

The same reasoning that led the NRC to make a generic determination that findings on offsite emergency preparedness are not required prior to authorization of 5% power operation should now lead the NRC to grant LILCO's request that the Company be allowed to end offsite planning for a defueled Shoreham. Indeed, the power level at which a plant operates is an appropriate consideration not only for a generic rulemaking on emergency preparedness requirements, but also for determining whether the "no undue risk" standard of § 50.12 has been satisfied.

For instance, the Commission addressed the relationship between the "no undue risk" standard and power level in the Supplementary Information accompanying the promulgation of the exemption rule in its current form. Reviewing public comments on the proposed rule changes, the Commission stated that

[t]wo industry commenters . . . requested that the Supplementary Information to the final rule reiterate that the "no undue risk" standard includes the consideration of compensatory measures, length of time of the exemption, and the power level involved. As the Commission noted in the Supplementary Information to the proposed rule, it is anticipated that the staff review of the safety significance of the requested exemption will take into account the type of plant operation contemplated (fuel loading, low power testing, power ascension, or full power operation), the length of time that the exemption would be in effect, the existence of compensatory measures, and other safety factors.

50 Fed. Reg. 50768 (Dec. 12, 1985) (emphasis added). At Shoreham, of course, plant operation is neither contemplated nor contractually permitted under the Settlement Agreement. Thus, in assessing whether LILCO's exemption request will present an undue risk, the NRC should take into account the fact that LILCO will not operate

Shoreham, notwithstanding the full power authorization.<sup>15/</sup>

In sum, the Safety Analysis reveals that, given the plant's defueled condition and the low burnup of the fuel, there can be no credible accident at Shoreham requiring an offsite emergency response. Thus, "simple logic and common sense," 20 NRC at 1440, indicate that LILCO should be granted an exemption from the offsite emergency preparedness requirements of § 50.54(q).

**B. Special Circumstances Exist That Further Support LILCO's Exemption Request**

At least two of the "special circumstances" listed under § 50.12(a)(2) apply to Shoreham's situation. They are addressed below.

(1) Application of the Regulation in the Particular Circumstances Would Not Serve the Underlying Purpose of the Rule and Is Not Necessary to Achieve its Underlying Purpose

Section 50.12(a)(2)(ii) applies to Shoreham's situation. Indisputably, the NRC's emergency preparedness regulations exist to ensure that the public health and safety will be adequately protected in the event of a radiological accident. For instance, when the Commission first proposed adding paragraph (q) to § 50.54, it stated that its

interest in emergency planning is focused primarily on situations that may cause radiological risks affecting the health and safety of workers or the public or that may

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<sup>15/</sup> Analogously, in a decision involving LILCO's request for a license authorizing it to engage in fuel loading and low power testing pursuant to 10 C.F.R. § 50.57(e), the Commission noted that

[e]ach regulation must be examined to determine its application and effect for fuel loading and for each phase of low-power operation. Simple logic and common sense indicate that some regulations should, by their own terms, have no application to fuel loading or some phases of low-power operation.

Long Island Lighting Co. (Shoreham Nuclear Power Station, Unit 1), CLI-84-21, 20 NRC 1437, 1440 (1984).

result in damage to property. . . . Emergency plans should be directed toward mitigating the consequences of emergencies and should provide reasonable assurance that appropriate measures can and will be taken to protect health and safety and prevent damage to property in the event of an emergency.

44 Fed. Reg. 54308 (Sept. 19, 1979).

At Shoreham, by contrast, no credible accident can occur that could jeopardize the public health and safety. Thus, requiring LILCO to continue to meet the full range of the NRC's emergency preparedness requirements is not necessary in order to achieve the underlying purpose of the regulation. With the level of emergency preparedness provided by the DEPP, LILCO will be fully capable of responding adequately to the spectrum of credible accidents that could occur at a defueled Shoreham.

In effect, the level of emergency preparedness that LILCO will maintain under the DEPP provides LILCO with an alternative means of satisfying the underlying purpose of the NRC's emergency preparedness regulations. Alternative means of compliance with NRC regulations are recognized under § 50.12(a)(2)(ii). In the Supplementary Information accompanying the promulgation of § 50.12 in its current form, the Commission stated that "alternative means of compliance may be considered in evaluating the special circumstances factors in § 50.12(a)(2)(ii) of the final rule." 50 Fed. Reg. 50771 (Dec. 12, 1985). In this regard, the Commission went on to note that the

detailed requirements of each safety regulation in 10 CFR Part 50 reflect a rulemaking judgment that satisfaction of those detailed requirements is the only way to achieve the specific purpose of the regulation without imposing unnecessary hardship or creating unforeseen conflicts. However, in any particular case this could prove to be incorrect, and the exemption process would permit licensees or applicants to offer alternative ways of achieving the purpose of the regulation without other undesirable effects.

Id.

Here, the "undesirable effect" that LILCO seeks to avoid through its exemption request is the wasteful expenditure of several millions of dollars annually for the maintenance of a level of emergency preparedness at Shoreham that radically exceeds the risk involved, given the plant's defueled status, the low burnup condition of the fuel, and the contractual bar to LILCO's ever operating the plant. Since LILCO has demonstrated, through its Safety Analysis, that the level of emergency preparedness under the DEPP will provide an entirely adequate alternative means of protecting the public health and safety, LILCO satisfies the § 50.12(a)(2)(ii) "special circumstance" standard.

- (2) Compliance Would Result in Undue Hardship or Other Costs that Are Significantly in Excess of Those Contemplated When the Regulation Was Adopted and that Are Significantly in Excess of Those Incurred by Others Similarly Situated

Section 50.12(a)(2)(iii) also applies to Shoreham's situation. LILCO spends approximately \$7 million annually to maintain its current level of emergency preparedness. Such an expenditure imposes an undue hardship on LILCO and its ratepayers, since, again, there is no health or safety need to maintain emergency preparedness for Shoreham at such a high level.

To repeat, as long as LILCO holds Shoreham's license, LILCO is contractually prohibited from operating the plant and the plant will not be taken out of its present defueled mode. Yet, due to the effect of § 50.54(q) and certain conditions in Shoreham's license, the LERO organization continues to be maintained and trained for a mission that it will never carry out, in response to an accident that cannot credibly occur.

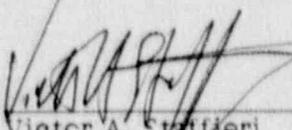
To take a concrete example, under condition C.(13) to its license, LILCO is required to train regularly LERO workers and conduct drills on a quarterly basis. Moreover, in the absence of an exemption, LILCO will be required, pursuant to 10 C.F.R.

Part 50, Appendix E, ¶ IV.F, to conduct a FEMA-graded exercise of its offsite emergency plan by the end of 1990. Holding another Shoreham exercise next year would be a mindlessly wasteful expenditure of time and money, not only for LILCO, but for the federal government.<sup>16/</sup> Yet, absent an exemption, the process of planning for the next exercise must soon get underway. This fact, by itself, dramatically illustrates that the § 50.12(a)(2)(iii) "undue hardship" test has been met in this circumstance.

#### IV. Conclusion

For the foregoing reasons, LILCO respectfully requests that, pursuant to 10 C.F.R. § 50.12, the NRC grant the Company an exemption from the emergency preparedness requirements of 10 C.F.R. § 50.54(q) until such time as the NRC approves the transfer of Shoreham to the Long Island Power Authority.

Respectfully submitted,



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<sup>16/</sup> LILCO spent approximately \$5 million in preparing for and conducting the last Shoreham exercise on June 7-9, 1988. The NRC and FEMA also had similarly large expenditures.