

NUREG 0654 §§ II.E.5 and E.6, and Appendix 3 thereto, and FEMA REP-10,^{1/} for the following reasons:

1. WPLR-FM could not and would not function as an effective or adequate primary EBS station for radio transmission of EBS messages and activation of tone alert radios and receivers installed at the secondary EBS stations because:

A. WPLR's broadcast signal is too weak to convey a strong and clear broadcast message throughout the EPZ and surrounding areas. WPLR broadcasts at a power of only 14.1 kilowatts. LILCO's previous primary EBS station -- WALK-FM and -AM -- broadcasts at a power of 50 kilowatts. Thus, WPLR's broadcast power is less than 30% as strong as LILCO's former primary EBS station.

B. The geography of Long Island, combined with the location of WPLR's transmitters, exacerbates the weakness of WPLR's broadcast signal with respect to the public in and around the Shoreham EPZ. Long Island radio antennas are typically oriented in a nominal east-west direction, in order to facilitate reception of radio signals from the New York City area. WPLR's signal, however, comes from north of Long Island, and therefore its reception on directional antennas in

^{1/} FEMA REP-10, Guide for the Evaluation of Alert and Notification Systems for Nuclear Power Plants (Nov. 1985).

the EPZ and elsewhere on Long Island can be impaired or attenuated. In addition, the hilly landscape of the north shore area of the EPZ and other obstructions further diminish the quality of reception of WPLR's signal.

C. WPLR has no AM broadcasting capability. LILCO's previous primary EBS station -- WALK -- could broadcast AM along with FM with the flip of a single switch.^{2/} LILCO thus fails to comply with the requirement that there be a capability to issue warning messages on a 24-hour basis.

D. To be effective, an EBS station must be generally known and listened to by the public. WPLR has a negligible listenership rate within Suffolk County and, accordingly, within the EPZ. Indeed, WPLR's listenership rate is only about 1%, meaning that, at any given time, on average, only about one person out of every 100 in Suffolk County listening to radios is listening to WPLR. LILCO's previous primary EBS station -- WALK-FM and -AM -- has a listenership rate of more than 10%.

E. An EBS station must also be perceived by the public as one likely and able to broadcast authoritative, accurate, reliable and credible information. As a result of (i) WPLR's location in Connecticut (more than 30 miles from the EPZ),

^{2/} This ability to simulcast during either day or night operation was one of the reasons LILCO previously relied upon WALK as its primary EBS station. See LILCO Plan, Appendix A at IV-3; see also Clawson et al., ff. Tr. 5254, Att. 2, at 1.

rather than on Long Island or even in the State of New York, (ii) WPLR's relatively weak broadcast signal which, combined with the location of WPLR's transmitters and the geography of Long Island, reduce the public's ability to receive its broadcasts, and (iii) WPLR's low listenership rate, the public in and around the EPZ would not be familiar with WPLR, and would not consider emergency information or instructions broadcast by that station, about local conditions on Long Island, at the Shoreham plant, or in or around the Shoreham EPZ, to be credible, authoritative, accurate, or reliable. LILCO's previous primary EBS station -- WALK -- is Long Island's most powerful radio station, the one most listened to, and the one most regularly relied upon for local and emergency information, such as weather and school closing announcements and traffic conditions. As a result, unlike WPLR, WALK has a high degree of visibility, credibility and familiarity to Long Island residents.^{3/}

F. WPLR is based in Connecticut, rather than on Long Island, the location of the Shoreham plant, or even in the State of New York. WPLR is accordingly not a local broadcast station, and LILCO's reliance on that station is contrary to

^{3/} The letter of agreement between LILCO and its previous lead EBS station, entered into evidence and relied upon by LILCO, emphasized WALK's purportedly unique qualifications to serve as LILCO's primary EBS station, claiming, among other things, that the station was equipped with "Long Island's most powerful radio signal," "is the only station capable of covering all of Nassau and Suffolk Counties as well as much of Connecticut," "operates 24 hours" (as compared to AM stations on Long Island, which are restricted to daytime signals), and had "the unique capability of broadcasting [AM] along with FM with the flip of a single switch" See Clawson et al., ff. Tr. 5254, Att. 2, at 1.

regulatory requirements. See, e.g., 10 CFR Part 50, Appendix E § IV.D.2.

2. LILCO relies on nine smaller, secondary stations (two in Connecticut and seven on Long Island) to complete its new EBS network headed up by WPLR-FM. These secondary stations could not and would not compensate for the inadequacies and ineffectiveness of WPLR as the primary EBS station, and they could not and would not function adequately or effectively to transmit EBS messages or emergency information to the public in the EPZ and surrounding areas during a Shoreham emergency because:

A. The new EBS network has significant gaps in its AM coverage of the EPZ at night. WELI-AM, in New Haven, Connecticut, provides the only regular nighttime coverage to the EPZ. That coverage, however, extends only to the northern portion of the plume exposure EPZ; there is no nighttime AM coverage of the southern part of the EPZ under LILCO's new EBS network. Accordingly, a substantial portion of the population in and around the EPZ might not receive emergency information via LILCO's new EBS network in the event of a Shoreham emergency. LILCO's previous EBS network, including WALK, was capable of providing 24-hour AM and FM coverage of not only all of Suffolk County, but also all of Nassau County and much of Connecticut.

B. LILCO's new EBS network, including WPLR and the nine secondary stations, has a collective listenership rate of

only about 4% in Suffolk County. LILCO's previous EBS network, comprised of WALK and 11 other Long Island stations, had a collective listenership rate of more than 30% within the County. As a result of the fact that the primary and two of the secondary stations (including the only station that regularly provides AM broadcasting at night) are located in Connecticut, rather than on Long Island or even in the State of New York, WPLR's relatively weak broadcast signal within Suffolk County and the plume exposure EPZ, and the fact that the vast majority of EPZ residents do not generally listen to, and therefore are not familiar with WPLR or the other stations in LILCO's new EBS network, the public would not consider emergency information or instructions broadcast over that network to be credible, authoritative, accurate, or reliable. LILCO's previous EBS network included, in addition to WALK, WBLI-FM in Patchogue, New York, and WGSM-AM and WCTO-FM in Melville, New York -- the second, fourth and fifth most widely listened to stations in Suffolk County.^{4/} Those stations are regularly relied upon for local and emergency information (such as weather and school closing announcements and traffic conditions), and have a far higher degree of visibility, credibility and familiarity to Long Island, Suffolk County, and EPZ residents than the stations now relied upon by LILCO.^{5/}

^{4/} The third most widely listened to station in Suffolk County, WBAB-FM, has never participated in LILCO's EBS network.

^{5/} Even LILCO has conceded that information broadcast from non-local, out-of-state radio stations would inherently lack credibility and that emergency
(footnote continued)

C. Ingestion pathway protective action recommendations must be communicated to persons outside the 10-mile plume exposure EPZ. See, e.g., 10 CFR § 50.47(b)(10), NUREG 0654 § II.J.11; see generally OPIP 3.6.6. Thus, LILCO's sample EBS messages contemplate the provision of emergency information in addition to protective action recommendations to persons outside the 10-mile EPZ, such as identification of the boundaries of the EPZ, and what actions, if any, persons outside the EPZ need to take. See, e.g., OPIPs 3.8.2 and 3.6.6. LILCO's new EBS network, however, has virtually no nighttime EBS coverage -- AM or FM -- in the Shoreham ingestion pathway to the west of the 10-mile EPZ. Therefore, LILCO has made no provision for communication at night of essential emergency information, including ingestion pathway protective action recommendations, to directly affected persons in the heavily-populated areas immediately adjacent and to the west of the 10-mile EPZ. This failure to provide any means of notification and communication of emergency information to an entire segment of the population at risk violates 10 CFR §§ 50.47(a)(1), (b)(6), (b)(10), and NUREG 0654 §§ II.E.5 and J.11. It would also result in an

(footnote continued from previous page)

information therefore should be broadcast through local stations, which would be viewed by the public as credible and authoritative sources of emergency information. Thus, during cross-examination of LILCO's witnesses on Contention EP 20, it was LILCO's position that persons seeking information regarding a radiological emergency at Shoreham would tune into their local radio stations, rather than New York City or Connecticut stations, because the local stations are viewed as being reliable sources for emergency information -- including information regarding the dissemination of protective action recommendations that might be made by LILCO in the event of a Shoreham emergency. Tr. 5262-65 (March 29, 1984). The regulations similarly specify that an EBS network must be made up of local broadcast stations. See 10 CFR Part 50, Appendix E, § IV.D.2.

inability to control the content and flow of emergency information and EBS messages, contrary to the basic premise of the public information portion of the LILCO Plan. See, e.g., OPIPs 3.8.1 and 3.8.2.

3. LILCO's evacuation plan depends upon the dissemination of clear, authoritative emergency information to prevent the development of a large evacuation shadow. See Long Island Lighting Co. (Shoreham Nuclear Power Station, Unit 1), LBP-85-12, 21 NRC 644, 670 (1985) (hereafter, "PID").^{6/} LILCO's new EBS proposal has virtually no nighttime EBS coverage west of the EPZ, however. This gap in LILCO's EBS coverage results in a large segment of the population just outside the EPZ having no access to emergency information regarding a Shoreham accident. As a result, there would be substantial confusion, rumor generation, and the dissemination of inaccurate and inconsistent information. This would lead to substantial voluntary evacuation by residents from outside the plume EPZ, who would perceive themselves to be at risk and, lacking timely and reliable information or instructions, would proceed to evacuate.^{7/} Indeed, the Licensing Board has previously acknowledged that this would be the

^{6/} The Licensing Board has previously determined that LILCO's ability to manage an offsite emergency response is "heavily dependent upon its ability to frame appropriate [emergency broadcast] messages and to disseminate them to the public." PID, 21 NRC at 670 (emphasis added).

^{7/} Significant voluntary evacuation by the public immediately outside the EPZ would likely result in severe traffic congestion, which would adversely impact evacuation flow from the EPZ and thereby significantly increase EPZ evacuation time estimates. It could also adversely impact the public's efforts to be monitored or decontaminated. In addition, because LILCO's Plan generally assumes that there would be no voluntary evacuation by the public, significant voluntary evacuation could exhaust LILCO's response capability and make wholly inadequate LILCO's planning basis for a Shoreham emergency.

case, by declaring that in the absence of the dissemination of clear, non-conflicting and timely notice and instructions to the public at the time of an accident, a large evacuation shadow would likely result:

If for any reason confused or conflicting information was disseminated at the time of an accident, the Board accepts that a large excess evacuation on Long Island could materialize.

PID, 21 NRC at 670 (emphasis added).

Further, LILCO's new EBS proposal would likely cause a significant evacuation shadow from within the EPZ. The factors contributing to this voluntary evacuation would be: (1) gaps in the EBS' nighttime AM coverage and potentially even daytime FM coverage within the plume exposure EPZ; (2) the absence of credibility and authoritativeness attaching to emergency broadcast information originating largely from a non-local, out-of-state EBS station; (3) the unavailability of emergency information from familiar local stations; and (4) the substantial likelihood of distorted and, therefore, conflicting emergency information.

The consequences of a significant evacuation shadow would make it impossible for LILCO to implement its Plan as written and could make inadequate LILCO's planning basis for a Shoreham emergency. See PID, 21 NRC at 670.

4. LILCO's asserted reliance upon so-called "informal alerting systems," consisting of word-of-mouth communications between and among members of the public, some of whom may have heard emergency broadcasts, to supplement its new EBS network, could not and would not compensate for the inadequacies and ineffectiveness of that network. Such a proposal for providing alerting, notification, and essential emergency information and protective action

recommendations to the public is speculative and unreliable, contains no design report or other analysis, is inconsistent with LILCO's own theories of emergency communications, is inconsistent with the methods of alerting and notifying the public that might otherwise be acceptable in lieu of an EBS network, and fails to satisfy the requirements of 10 CFR §§ 50.47(b)(5) and (b)(6), 10 CFR Part 50, Appendix E § IV.D.3, NUREG 0654 §§ II.E.5 and E.6, and Appendix 3 thereto, and FEMA REP-10.

January 12, 1988

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UNITED STATES OF AMERICA
NUCLEAR REGULATORY COMMISSION

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Before the Atomic Safety and Licensing Board

OFFICE OF SECRETARY
DOCKETING & SERVICE
BRANCH

_____)	
In the Matter of)	
LONG ISLAND LIGHTING COMPANY)	Docket No. 50-322-OL-3
(Shoreham Nuclear Power Station,)	(Emergency Planning)
Unit 1))	
_____)	

CERTIFICATE OF SERVICE

I hereby certify that copies of EMERGENCY PLANNING CONTENTION RELATING TO LILCC'S NEW EMERGENCY BROADCAST SYSTEM PROPOSAL have been served on the following this 12th day of January, 1988 by U.S. mail, first class.

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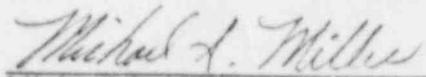
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