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April 18, 1988

UNITED STATES OF AMERICA
NUCLEAR REGULATORY COMMISSION

Before the Atomic Safety and Licensing Appeal Board

In the Matter of)	
LONG ISLAND LIGHTING COMPANY)	
(Shoreham Nuclear Power Station,)	Docket No. 50-322-OL-5
Unit 1))	(EP Exercise)

GOVERNMENTS' BRIEF IN OPPOSITION TO LILCO APPEAL OF LBP-88-2

L. Introduction

On February 1, 1988, the Licensing Board ruled that LILCO's performance during the February 13, 1986 Shoreham exercise ("Exercise") revealed fundamental flaws in LILCO's Plan and LILCO's capability to implement that Plan. The principal flaws involved communications, prompt staffing of traffic control points, and training. Long Island Lighting Co. (Shoreham Nuclear Power Station, Unit 1), LBP-88-2, 27 NRC _____ (February 1, 1988) ("Decision" or "LBP-88-2").

LILCO has appealed the Decision, objecting particularly to adverse Board rulings concerning Contentions EX 38, 39, 40, 41, and 50. LILCO's Brief on Appeal from the February 1, 1988 Partial Initial Decision on the Emergency Planning Exercise, March 14, 1988 ("LILCO Brief" or "LILCO Br."). The Governments (Suffolk County, New York State, and the Town of Southampton) oppose LILCO's appeal.

LILCO alleges multiple errors. First, as overall criticisms, LILCO argues that the Licensing Board defined the "fundamental flaw" standard too broadly, allegedly including problems which are minor or easy to correct, or which have no potential health and safety impact. LILCO argues also that the Board erred by considering issues related to LILCO's capability to implement the Plan. Second, LILCO alleges a host of errors pertaining to individual contentions, including: improper consideration of matters which were res judicata from earlier Plan litigation; consideration of inadmissible evidence; failure to consider evidence proffered by LILCO; consideration of allegedly "isolated" problems; failure to support conclusions with substantial evidence; and failure to articulate the bases and reasons for particular conclusions.

If LILCO's Brief is read in isolation, it conveys the impression that the Board disregarded law and the record, and reached unsupported conclusions about LILCO's Exercise performance. Nothing could be further from the truth. Both the Governments and the NRC Staff urged the Board to find that LILCO's performance revealed fundamental flaws.^{1/} Further, FEMA testified and the Board found that LILCO's performance was sufficiently deficient to merit a negative reasonable assurance finding. LBP-88-2 at 6. Thus, LILCO stands alone in asserting that its Exercise performance was adequate.

The Board articulated in detail the bases for its conclusions that LILCO's performance was inadequate. And, it is clear that the Board weighed the evidence carefully in reaching its conclusions. The Board had a large evidentiary record before it (almost 12,000 pages of transcript and prefiled testimony alone) and spent more than 250 pages in explaining its Decision. The Board was hardly one-sided: it agreed with LILCO on many contentions; when it ruled against LILCO, it was almost always in the context of

^{1/} See Suffolk County, State of New York, and Town of Southampton Proposed Findings of Fact and Conclusions of Law on the February 13, 1986 Shoreham Exercise, Aug. 17, 1987 ("Gov't. Findings"); NRC Staff's Proposed Findings of Fact and Conclusions of Law on the February 13, 1986 Emergency Planning Exercise, Sept. 11, 1987 ("Staff Findings").

extensive evidence of serious problems reflected in the Exercise, filings by the Governments and Staff urging that fundamental flaws existed, and often a FEMA deficiency finding. There is ample — indeed, overwhelming — support for the Board's conclusions.

LILCO's Brief addresses particular contentions multiple times under multiple headings.^{2/} Thus, LILCO never addresses in a single discussion the specific issues focused on by the Board. The Governments have sought to avoid this confusion by structuring this brief to parallel more closely the Licensing Board's Decision. We address first in Section II the fundamental flaw standard and LILCO's general criticisms related thereto. Thereafter, in Section III, LILCO's other arguments are addressed in the context of individual contentions.

II. Emergency Planning Exercises and the Fundamental Flaw Standard

LILCO's broad criticisms of the Decision depend on two related arguments: the Board erred by considering problems related to LERO's inability to implement the Plan, rather than focusing solely on flaws "in the Plan" itself; and the Board improperly defined the fundamental flaw standard adopted by the Commission in CLI-86-11.^{3/}

A. The Licensing Board Properly Considered the Issue of Plan Implementability

LILCO's "implementation" argument is as follows:

The Board in its application broadened the "fundamental flaw" test so as to apply it to plan implementation as distinguished from the plan itself. This extrapolation is inconsistent with the only relevant precedent — Union of Concerned Scientists, Shearon Harris, and CLI-86-11. All three of these cases concern the revelation in exercises of "fundamental flaws" in a plan itself, not in performance on the exercise day.

^{2/} For example, LILCO addresses Contention EX 50 in nine sections of its brief. See LILCO Br. at 3, 21-22, 36-38, 44-46, 46-49, 49-50, 60-61, 61-63, 66-67.

^{3/} Long Island Lighting Company (Shoreham Nuclear Power Station, Unit 1), CLI-86-11, 23 NRC 577 (1986) ("CLI-86-11").

LILCO Br. at 19 (emphasis in original). It is thus LILCO's argument that UCS,^{4/} a Shearon Harris Licensing Board decision,^{5/} and CLI-86-11 are the only "relevant precedent[s]" and that they compel a conclusion that issues of plan implementation are virtually per se non-litigable in an exercise context.^{6/}

LILCO is wrong. Plan implementation issues are at the heart of the purpose of an exercise. Contrary to LILCO's suggestion, the UCS court recognized that fact. Further, FEMA's witnesses in this proceeding repeatedly made clear during the 1983-84 planning litigation that consideration of plan implementation issues would be the central purpose of the Exercise. LILCO's reliance on the Shearon Harris Licensing Board decision is misleading. LILCO fails to cite a subsequent Shearon Harris Commission decision which clarifies that plan implementability issues are proper subjects in exercise proceedings. Indeed, the Shearon Harris decision which LILCO fails to cite was decided after CLI-86-11 and explicitly cites CLI-86-11 in deciding that plan implementability issues are proper matters for exercise litigation.

Under the NRC's regulations, the Commission must base a reasonable assurance finding on a review of:

. . . the Federal Emergency Management Agency [FEMA] findings and determinations as to whether State and local emergency plans are adequate and whether there is reasonable assurance that they can be implemented

^{4/} Union of Concerned Scientists v. NRC, 735 F.2d 1437 (D.C. Cir. 1984), cert. denied, 469 U.S. 1132 (1985).

^{5/} Carolina Power & Light Co. (Shearon Harris Nuclear Power Plant), LBP-85-49, 22 NRC 899 (1985).

^{6/} LILCO hedges somewhat in a footnote and suggests that "[c]onceivably" some very serious implementation-related matters might be admissible. It then scoffs at this idea, given Shoreham's facts. See LILCO Br. at 19, n.12. However, prior to its appeal, LILCO had agreed that implementation issues were relevant. See LILCO's Opposition to Suffolk County's Motion for Order Compelling LILCO to Respond to Suffolk County's First Set of Interrogatories and Request for Production of Documents, Nov. 21, 1986, at 3 (" . . . the subject of this litigation is limited to whether the February 13, 1986 exercise itself demonstrated that LILCO's emergency plan is not implementable or that there exist fundamental flaws in the Plan.") (emphasis added).

10 CFR § 50.47(a)(2) (emphasis added). The UCS court recognized that information about plan implementability is the essential contribution of an exercise:

[T]he Commission is called upon to consider and weigh evidence presented by FEMA, the licensee, and state and local officials in assessing whether the exercises demonstrate that adequate emergency preparedness plans can and will be implemented.

UCS, 735 F.2d at 1450 (emphasis added). The emergency planning exercise is a "material factor" in the licensing decision because it reveals whether a plan which appears adequate in the abstract can, in fact, be implemented. In distinguishing emergency exercises from pre-operational testing, which may not provide the basis for litigation, the UCS court wrote:

Emergency preparedness exercises, on the other hand, are not evaluated in terms of preestablished criteria; they are evaluated to ensure that they do not reveal any fundamental inadequacies in the nature or implementation capacity of emergency plans.

Id. at 1451 (emphasis added). Thus, contrary to LILCO's assertions (LILCO Br. at 19), UCS does not stand for the proposition that plan implementability matters are irrelevant to an exercise.^{7/}

^{7/} Even when the NRC took the position that the results of exercises were not necessarily litigable — a position rejected by the UCS court — it recognized that information on the implementability of an emergency plan would be part of the material information revealed by an exercise:

The full-scale exercise is actually an indicator of two factors: the state of emergency preparedness at the time the exercise is conducted, and whether the emergency plan and the planning process are fundamentally sound. If the outcome of the exercise showed that the plan and the underlying judgments about its adequacy and capability of implementation were seriously flawed — as opposed to details of its implementation in that exercise not reflecting on the overall adequacy of the plan and its capability of implementation — reopening of the hearing record might be appropriate

48 Fed. Reg. 16,693 col. 1 (1983) (emphasis added).

Moreover, the process followed by the NRC and FEMA in reviewing emergency plans confirms that testing plan implementability is a key purpose of an exercise. A plan is first evaluated to determine whether, as written, it comports with regulatory criteria. Once the written plan has been so reviewed, an exercise is scheduled to assess the plan in operation to predict how the plan would work under emergency conditions.

This is the process that was followed with the LILCO Plan. The Plan was reviewed by FEMA and the OL-3 Board in the earlier 1983-84 Plan litigation. Throughout those hearings, the FEMA witnesses reiterated that the final proof of the Plan's adequacy must await an exercise:

Q Is it fair to say, Mr. Kowieski, that this plan review has been conducted by FEMA and by the RAC committee without consideration, at this time, for whether the plan can and will be effectively implemented by LILCO?

A The plan was reviewed, as I stated, measured against the requirements of NUREG 0654. We did not evaluate whether or not the plan is capable of being implemented. This would be done at a later stage during the exercise.

Tr. 12,605-06 (emphasis added).^{8/} Thus, FEMA's review processes for plans and

^{8/} See also, e.g., Tr. 12,650 (whether resources specified in the Plan are adequate will be determined during the exercise); Tr. 12,711-12 (whether or not LILCO's backup means of communications will work "is a matter of exercise or test"); Tr. 12,724 (people may not be able to implement the Plan, and that would change an evaluation, perhaps, after an exercise, but it would not necessarily change the evaluation of the Plan); Tr. 12,753 (issue of bus accessibility, including the drivers getting to the buses and getting the buses to where they would have to be, would be assessed during an exercise); Tr. 12,775 (in the context of a discussion of the criterion for timely activation of the staging areas, "[f]rom a planning perspective, the RAC has concluded that the planning standard has been met. Whether it can be implemented again will be shown in an exercise."); Tr. 12,814 (in the context of a discussion of fuel distribution locations, "[w]e have, at this point in time, made a judgment on the planning perspective. Then, we will look at the implementability of the plan during an exercise and, therefore, we might have a different finding."); Tr. 12,863 (on the adequacy of the bus transportation scheme, ". . . whatever we saw, whatever we read in the Plan made sense to us, and in our opinion it should work. If it will work, the exercise will tell."); Tr. 12,866 ("Again, it is stated for the record, this will be the next step — next stage. When we go to the exercise, prior to the exercise we will spend gre[at] deal of time developing exercise objections [sic] and exercise scenario, and we will go to the — and when we go to the exercise we will be well prepared to test, and we will test, whether the scheme is going
(footnote continued)

exercises further underscore that plan implementability is a critical exercise issue.^{9/}

The implementability issue was not presented squarely in CLI-86-11, the first case in which the NRC defined a fundamental flaw:

Under our regulations and practice, Staff review of exercise results is consistent with the predictive nature of emergency planning, and is restricted to determining if the exercise revealed any deficiencies which preclude a finding of reasonable assurance that protective measures can and will be taken, i.e., fundamental flaws in the plan.

23 NRC at 581 (emphasis added). LILCO relies upon the "in the plan" language as the basis for its argument that implementability issues are not to be considered. See LILCO Br. at 16, 19. LILCO ignores, however, the prior clause -- the "reasonable assurance" language. Implementation flaws which preclude a reasonable assurance finding certainly cannot be ignored.

A decision in the Shearon Harris proceeding -- issued by the Commission after CLI-86-11 -- makes it clear that such implementation flaws must be considered. Although LILCO relies upon the Shearon Harris Licensing Board decision, it fails to cite this Shearon Harris Commission decision which is directly on point. In this Commission decision, the NRC discussed CLI-86-11 and then proceeded to re-articulate the issues which are appropriate in exercise litigation:

Even though the results of the May 1985 exercise show some problems, they do not show a flaw in planning or

(footnote continued from previous page)

to work or not."); Tr. 12,977 (on the public information program, "[s]o, basically the effectiveness is if people understand what they are supposed to do in case of an emergency. This would be evaluated during the exercise."); Tr. 12,458 (actual implementation of callup system will be verified during the exercise); Tr. 12,543 (when asked if the provisions contained in the LILCO Plan are sufficient to ensure effective communication among LILCO field personnel, "[a]gain, this is another capability that we would not be able to make a judgment on until there was an exercise").

^{9/} For the Appeal Board's convenience, the Governments have included some portions of the record on which they rely in a one-volume attachment to this brief. Excerpts from FEMA's earlier testimony are included, as are excerpts from the transcript of the Exercise litigation and copies of the post-Exercise drill reports objected to by LILCO.

implementation that would require another exercise prior to issuance of a full-power license. Rather, the May 1985 exercise showed that both planning and implementation were adequate to meet the regulatory requirements.

Carolina Power & Light Co. (Shearon Harris Nuclear Power Plant), CLI-86-24, 24 NRC 769, 777 (1986) (emphasis added).^{10/} Thus, an exercise must be looked at to determine whether both "planning and implementation are adequate to meet the regulatory requirements." Id. Accordingly, the Licensing Board was correct in addressing matters related to the implementability of the LILCO Plan.

Before turning to the fundamental flaw standard, it is appropriate to address LILCO's related "res judicata" argument, *o.*, put another way, LILCO's argument that the Licensing Board engaged in "de novo review" that inflicted "civil double jeopardy" on LILCO. LILCO Br. at 4. For example, LILCO asserts that the Board was wrong to conclude that LERO personnel need to be able to communicate laterally in the field, because the OL-3 Board had approved LILCO's vertical communications system. LILCO Br. at 40-42, citing Long Island Lighting Co. (Shoreham Nuclear Power Station, Unit 1), LBP-85-12, 21 NRC 644, 729-38, 794-96 (1985) ("PID"). LILCO similarly objects on res judicata grounds to certain Board rulings concerning mobilization (LILCO Br. at 42-44), public information (id. at 44) and training (id. at 44-46).

The particular bases for the Board's Decision are addressed in the contention-specific discussion in Section III. At this juncture, however, we note that LILCO's res judicata argument basically ignores the fundamental purpose of an exercise: to see whether the plan can actually work. LILCO would seemingly have the Board ignore plan implementation problems which document problems with the way the plan is structured, on the basis that the "structure" in question has been "approved." That ignores reality:

^{10/} Even the Shearon Harris Licensing Board decision relied upon by LILCO held that serious plan implementation problems revealed in an exercise would constitute fundamental flaws. See 22 NRC at 911. That Board also ruled that "[e]ffective communications among emergency personnel are crucial to plan implementation" (id.) and thus admitted a communications contention.

the "approval" during plan review, as the FEMA testimony discussed above makes clear, is at best a tentative approval, which must be confirmed at an exercise. If the exercise results convince the Board that the prior conclusions were wrong -- that is, that the plan that looked good on paper does not work in practice -- the Board is certainly not barred from so holding. If that were the "rule," it is hard to conceive what purpose might be served by an exercise. The Commission's guidance is consistent with rejection of LILCO's res judicata argument. See Shearon Harris, 24 NRC at 777 (exercises address "both planning and implementation").

LILCO's res judicata argument is also inconsistent with LILCO's fundamental flaw definition. LILCO claims that a fundamental flaw is, among other things, a "conceptual flaw in a plan" LILCO Br. at 10. If the Board identifies a conceptual flaw -- the lack of lateral communications, for example -- but that flaw was not identified in the earlier plan review, then LILCO's res judicata argument would leave the Board powerless to deal with the conceptual flaw. That makes no sense.

**B. A "Fundamental Flaw" Is That Which Precludes
a Finding of Reasonable Assurance _____**

The NRC in CLI-86-11 articulated a straightforward definition of a fundamental flaw: exercise results which preclude a reasonable assurance finding. 23 NRC at 581. At LILCO's urging, however, the Board expanded upon the Commission's definition and established more restrictive criteria which had to be satisfied before a fundamental flaw could be said to exist. See LBP-88-2 at 7-11. Nonetheless, the Board found multiple flaws arising from the Exercise.

LILCO has no basis to complain about the Board's fundamental flaw definition. LILCO's real complaint is with itself: its Exercise performance was so defective that it demonstrated fundamental flaws even under the Board's restrictive definition.

1. The History of the Fundamental Flaw Standard

Contrary to LILCO's assertions (see LILCO Br. at 14-15), the "fundamental flaw" standard was first defined in CLI-86-11. The standard is mentioned in decisions prior to then, including UCS and Shearon Harris. But, as discussed below, those decisions do not support any ruling that the OL-5 Board misinterpreted CLI-86-11.

It is first important to look at what was -- and what was not -- decided by the UCS court. The petitioners in UCS challenged an NRC rule which barred intervenors from contesting the results of emergency preparedness exercises in licensing hearings unless the NRC's stringent reopening standards were met. The UCS court rejected reopening as a substitute for the right to challenge exercise results in licensing hearings. 735 F.2d at 1443-44.^{11/}

The UCS court held that the Atomic Energy Act hearing requirement includes the factual issues raised by emergency planning exercises. Id. at 1447. The court then noted the NRC's argument that emergency planning exercises were only relevant to the licensing decision to the extent the exercises indicate "that emergency plans are fundamentally flawed." Id. at 1448. The issue of this standard was not before the court, however, and the court did not rule on it. Id. The court did, however, offer two comments. First, it noted that if the NRC adopted such a standard, "the NRC might still have to defend itself against allegations that it had acted arbitrarily and capriciously." Id. n.20. Second, in the opinion of the UCS court, to avoid summary disposition under such a standard, a party need only "identify and support specific facts upon which a reasonable inference could be drawn that the plan provided inadequate assurances of safety." Id. (emphasis added). In short, the most the UCS court can

^{11/} If LILCO now urges that the Commission's standard for reopening hearings is equivalent to the standard for finding a fundamental flaw (LILCO Br. at 15 and n.8), that position has been rejected by the UCS court.

accurately be characterized as saying about a "fundamental flaw standard" is that the litmus test would be "inadequate assurance of safety."^{12/}

After UCS, the Licensing Board in Shearon Harris discussed the fundamental flaw criterion and concluded that it probably could be used to exclude contentions relating to an exercise at the threshold. 22 NRC at 910, n.1. It must be emphasized, however, that the Board's decision in Shearon Harris was highly fact-specific. In that case, FEMA had made a positive reasonable assurance finding based on its evaluation of the Shearon Harris exercise: its overall finding was that "the exercise demonstrated that offsite preparedness is adequate to provide reasonable assurance that appropriate measures can be taken to protect the health and safety of the public" Id. at 910. In the case of Shoreham, of course, FEMA made no such reasonable assurance finding. In fact, FEMA's witnesses testified that if FEMA had made an overall finding for Shoreham, it would have been negative. Tr. 7503-05, 8359-60, 8365-66, 8645-46, 8651-52; see LBP-88-2 at 6.

Six months after the Shearon Harris Board opinion was issued, and without discussing the Shearon Harris case,^{13/} the Commission articulated the fundamental flaw standard applicable in this case:

^{12/} The UCS court noted that the NRC had made emergency preparedness findings more predictive. The court observed:

[E]ven under this amended standard, the NRC requires a successful evaluation of onsite and offsite emergency exercises before it issues a full power operating license.

735 F.2d at 1445, n.14 (emphasis added). LILCO relies on this "predictive" standard in an effort to rebut the Board's findings. LILCO Br. at 19. However, as the UCS court found, the proper test is whether there is a successful exercise. FEMA's findings on the Exercise make clear that the Exercise was no success.

^{13/} The NRC did note that LILCO had cited Shearon Harris in support of its argument that the Commission should reject contentions "which, as pleaded, do not demonstrate" a fundamental flaw. CLI-86-11, 23 NRC at 580 and n.1. This standard was rejected by the Commission. Id. at 581. It therefore appears at least by inference that the Commission in CLI-86-11 rejected any broad reading of the Shearon Harris Licensing Board decision.

Under our regulations and practice, Staff review of exercise results is consistent with the predictive nature of emergency planning, and is restricted to determining if the exercise revealed any deficiencies which preclude a finding of reasonable assurance that protective measures can and will be taken, i.e., fundamental flaws in the plan.

CLI-86-11, 23 NRC at 581 (emphasis added). The Commission equated a fundamental flaw in a plan with problems, including those arising from implementation difficulties, which preclude a reasonable assurance finding. This is confirmed by a later Shearon Harris Appeal Board decision, which again is not cited by LILCO. Thus, the Shearon Harris Appeal Board, having the benefit of CLI-86-11, interpreted the term "fundamental flaw" in terms of the reasonable assurance finding:

Although at the time the decision below was rendered the Commission had not spoken on the use of a "fundamental flaw" test, it has since expressly approved this standard. See Long Island Lighting Co. (Shoreham Nuclear Power Station, Unit 1), CLI-86-11, 23 NRC 577, 581 (1986). The Commission therein made it clear that the term "fundamental flaw" means a "deficiency" which preclude[s] a finding of reasonable assurance that protective measures can and will be taken."

Carolina Power & Light Co. (Shearon Harris Nuclear Power Plant), ALAB-843, 24 NRC 200, 215 n.11 (1986) (emphasis added).

LILCO maintains it is "clear" from UCS, Shearon Harris (the ASLB decision; not the ALAB decision), and CLI-86-11 that both the courts and the NRC have recognized: 1) that an exercise comes at the end of a long plan review process; 2) "that the concept of exercise litigation should be reviewed broadly with an eye toward whether the exercise disclosed major, fundamental problems in an emergency plan sufficient to justify reopening a hearing record"; and 3) that "the NRC was content to apply the much stricter reopening standard before litigating an exercise." LILCO Br. at 15. The first point has never been in dispute. LILCO's second two points, however, state the unlawful position taken by the NRC in promulgating the rule struck down by the UCS

court. It was not adopted in Shearon Harris or in CLI-86-11. LILCO's standard must be rejected here as well.

2. The Fundamental Flaw Standard
Adopted by the Board

What emerges from the history of the fundamental flaw standard is that the standard has one key component: exercise results which preclude a reasonable assurance finding constitute fundamental flaws. That was what was stated by the Commission in CLI-86-11 and the Appeal Board in ALAB-843. The Governments and the Staff each urged the Board to adopt essentially that standard; only LILCO sought a different standard.^{14/}

Each of the parties addressed the fundamental flaw concept in post-hearing briefs. While the Governments and the Staff basically urged a definition focused on the

^{14/} On the final day of the Exercise hearing, the Board asked the parties to define "fundamental flaw." The NRC Staff defined the as follows:

A fundamental flaw means a deficiency which precludes a finding of reasonable assurance that protective measures can and will be taken.

Tr. 8921. The Governments offered a similar definition:

In the context of an exercise proceeding, fundamental flaws are exercise results, events, and/or omissions which singularly [sic] or with other results, events or omissions preclude a finding of reasonable assurance that adequate protective measures can and will be taken on the basis of the LERO plan. Thus, they reflect problems in the plan and/or its implementation which preclude a reasonable assurance finding.

Tr. 8919-8920. LILCO proposed a more restrictive definition:

A fundamental flaw is a pervasive, systemic, conceptual flaw in a plan that has been revealed by an exercise which, if not fixed, prevents the issuance of a license because it affects the public health and safety. It is not readily correctable by equipment or training but requires far-reaching changes to the plan because it is a fundamental defect in the way an emergency plan is conceived.

Tr. 8917-18. See also LBP-88-2 at 7-8, 10.

CLI-86-11 reasonable assurance standard,^{15/} LILCO proposed a restrictive three-part test.^{16/} First, the threshold test, according to LILCO, was whether, in a real emergency, the alleged flaw would have substantially affected the health and safety of the public. Next, the problem must be systemic or pervasive, rather than merely one or more isolated and essentially independent problems. Finally, the alleged problem must not be readily correctable by means of additional training, new equipment, or some other reliable and verifiable method; rather, it is a problem that is only susceptible of correction through substantial, potentially far-reaching revision of the written emergency plan. LILCO Findings at 8.

For reasons already discussed, LILCO's test could have been rejected outright. The test articulated in adjudicatory decisions (CLI-86-11 and A7AB-843) is whether the flaws preclude a reasonable assurance finding. Any new test was beyond the Board's power to impose.

Nevertheless, the Board essentially adopted LILCO's test. LBP-88-2 at 8, 10. Although LILCO complains that the third element of its test (not readily correctable) was "apparently rejected" by the Board (LILCO Br. at 17), an analysis of the Board's Decision reveals that this was not the case. For each of the fundamental flaws it found, the Board suggested changes to the LILCO Plan. In some instances, perhaps, one may argue about how "substantial" or "potentially far-reaching" the suggested changes are or must be; however, any such quibbling would be merely speculative unless and until the suggested changes have been made and tested in an integrated fashion in another exercise.

^{15/} See Staff Findings at 3-6; Gov't. Findings at 6-13.

^{16/} LILCO's Proposed Findings of Fact and Conclusions of Law on the February 13, 1986 Emergency Planning Exercise for Shoreham, Aug. 3, 1987 ("LILCO Findings"), at 6-12; LILCO's Reply to Intervenors' and NRC Staff's Proposed Findings of Fact and Conclusions of Law on the February 13, 1986 Shoreham Emergency Planning Exercise, Sept. 25, 1987 ("LILCO Reply Findings"), at 6-16.

For example, to address the communications problems revealed by the Exercise, the Board suggested that LILCO re-vamp both the training program and the LERO communications structure. LBP-88-2 at 53, 217. To address the problems the Board found in LILCO's ability to communicate with the public, the Board recognized that changes are needed in the EBS messages and in the nature of the training given the LILCO Spokesperson. Id. at 233.^{17/} Similarly, the Board recognized that the LILCO Plan must be changed in its provisions for alerting, briefing and/or equipping field workers if their mobilization time is to be improved over what was demonstrated at the Exercise. See id. at 88 (noting Plan changes LILCO has already made to ensure more prompt dispatch, but leaving it to "emergency planners to devise a means to eliminate these flaws"). Further, FEMA itself had suggested changes for the areas in which it found deficiencies.^{18/}

In short, LILCO has no basis to complain about the Board's fundamental flaw standard: the Board essentially adopted LILCO's test. Yet, LILCO does complain. Its complaints appear largely to concern the Board's judgments in applying the fundamental flaw standard in the context of Shoreh... 's facts. We therefore address most of LILCO's specific complaints in the context of the individual contentions. We demonstrate there — with reference to the facts established below, to the extent possible, given the depth and breadth of the evidentiary record in this proceeding — that the Board's judgments are fully supported by the record and that there is no basis

^{17/} Simply to address FEMA's more limited criticisms of LILCO's public information dissemination during the Exercise, LILCO changed its entire procedure for getting information concerning the status of the emergency to rumor control personnel, more than doubled the number of copying machines available and moved the ENC to a different facility. Daverio et al., ff. Tr. 3206 ("LILCO EX 38/39 Testimony") at 6, 24-25.

^{18/} See, e.g., FEMA Report at 39, 75. LILCO's third fundamental flaw criterion also included the issue whether the problem was correctable by "training." See LBP-88-2 at 7. The Board could not possibly adopt such a criterion in this case, however, since it found that LILCO's fundamental flaws included serious deficiencies in the training program. See Section III.D below. The Board obviously could not rely on a flawed training program to correct other flaws.

for the Appeal Board to second-guess those judgments. In this Section, however, we address some of the arguments which pervade LILCO's Brief.

First, LILCO appears to argue that the Board violated the fundamental flaw test by finding relatively minor or ad hoc day-of-the-Exercise problems to constitute fundamental flaws. E.g., LILCO Br. at 20-21. The facts do not support LILCO. As it had earlier at the contention admissibility stage,^{19/} the Board rejected defects which were non-pervasive, unrelated to a problem with LILCO's Plan, readily correctable, or unlikely to affect the public health and safety.^{20/} Thus, there is compelling evidence that the Board carefully considered the seriousness of each problem.

Second, LILCO charges that the fundamental flaws found by the Board are based on a few "isolated" events. See, e.g., LILCO Br. at 2, 3, 9, 50. As demonstrated below in Section III, this is not true. But assuming arguendo that it were true, there is no reason why a single, isolated event or occurrence should not constitute a fundamental flaw. If a single isolated event precludes a reasonable assurance finding, CLI-86-11 requires it be deemed a fundamental flaw. This makes good sense, as is illustrated by an example from the Exercise.

One of LILCO's fundamental flaws involved, in part, the failure of the LERO Evacuation Route Coordinator to inform his superiors and co-workers of two simulated impediments after receipt of FEMA's free-play messages detailing the impediments,

^{19/} The Board denied admission of Contention EX 23 on the ground that it described only a "minor or ad hoc" problem. Prehearing Conference Order (Ruling on Contentions and Establishing Discovery Schedule), Oct. 3, 1986 at 15 ("Oct. 3 Order"). Similarly, the Board rejected Contentions EX 27 and EX 28 because the problems alleged were judged to be minor and readily correctable. Id., at 16.

^{20/} See, e.g., LBP-88-2 at 243 (lack of LERO workers' adequate knowledge of personal radiation protection is not a fundamental flaw because it would not affect public health and safety); id., at 103 (a few monitors taking too long to monitor is not a fundamental flaw); id., at 130 (timing of ENC activation was acceptable, since the opening occurred prior to release and the only protective action recommendation was school closing); id., at 160 (Board will not consider contention concerning misleading information in EBS messages about Traffic Guides further, as LILCO has committed to reword the messages).

and his failure to include complete information on the impediments in the communications that were relayed to other personnel. LILCO would have the Appeal Board reverse this fundamental flaw finding on the basis that it allegedly is an isolated event involving the performance of one individual on the day of the Exercise and thus does not rise to the level of a "fundamental flaw." E.g., LILCO Br. at 2.

As a result of the Evacuation Route Coordinator's errors, however, it is questionable whether LILCO could have implemented an orderly evacuation of the EPZ. Two major evacuation routes were blocked but pertinent response personnel were not alerted or informed about this situation. What this illustrates with respect to the LILCO Plan is revealing: the improper actions of a single individual in a mid-level position within the LERO hierarchy had the effect of substantially impeding LERO's response. This demonstrates a glaring fundamental flaw in the LILCO Plan: there are insufficient checks and balances within LERO to prevent the actions of one individual from significantly disrupting an emergency response. Thus, even a single, isolated event, depending upon the circumstances, can reveal a fundamental defect and vulnerability in the structure of a plan.

Third, LILCO argues that the Licensing Board was required to analyze whether each error would have had, in and of itself, a significant impact on public health and safety.^{21/} As discussed in Section III, the Board often did link flaws to public health and safety. However, the Board was under no obligation to make a specific finding that each problem which formed a basis for a fundamental flaw conclusion had to, in and of

^{21/} For example, LILCO lists its version of the "shortcomings" the Licensing Board found in LILCO's press conference performance and then complains that "the Board did not even discuss, much less determine, that each would have substantially affected the public health and safety." LILCO Br. at 27 (emphasis added). Similarly, in discussing the inaccurate information given by Dr. Brill concerning weathering factors, LILCO charges that "there was no finding by the Board that this single statement at a press briefing would have had an impact on public health and safety." Id. at 33 (emphasis added). And again, LILCO states that "the Licensing Board neglected to explain why the dated nature of the information given to individuals by Rumor Control would significantly affect public health and safety." Id. at 32.

itself, have a significant impact on public health and safety. Nothing in CLI-86-11 imposes such a requirement. In fact, since the emergency planning regulations are not premised on specific dose reduction criteria, it would be inconsistent with the regulations to require a showing that each specific defect has a specific health and safety impact.^{22/}

Further, LILCO's argument ignores the purpose of emergency planning exercises. Until a plan is exercised, it is merely a collection of individual procedures, divided by facility or workers' functions. The purpose of an exercise is to see whether what is set down on paper can be integrated into a coordinated response. If it cannot be -- if the major parts do not work individually and/or in conjunction with each other -- there cannot be reasonable assurance that adequate protective measures can and will be taken to protect the public health and safety. It was not the Licensing Board's duty to attempt to separate out and quantify (assuming this can even be done) the precise impact of each problem on public health and safety. Rather, the Board looked at and examined the numbers and types of problems in major portions of the Plan and in their implementation and determined that in some areas (for example, communications, mobilization, and wide areas of the training program), problems were so manifest and serious that the necessary reasonable assurance finding was precluded. No more precise inquiry by the Board was required.

Fourth, LILCO proposed that the Board reject as non-fundamental any flaws which LILCO alleged were readily correctable. The Board appears to have accepted this criterion to a degree.^{23/} It should have rejected the criterion outright. The CLI-86-11 criterion is clear on its face: a problem constitutes a fundamental flaw if it

^{22/} The NRC's amended 10 CFR § 50.47(c)(1) specifically rejects any such dose assessment analyses. See 52 Fed. Reg. 42084 (1987) (emergency plans are to be evaluated without reference to the specific dose reductions which might be achieved under the plan).

^{23/} E.g., LBP-88-2 at 160 (LILCO commitment to reword messages acceptable to Board).

precludes a reasonable assurance finding. The Commission in CLI-86-11 made no mention whether an extremely serious problem which perhaps appears to have a relatively easy "fix" should or should not be considered to be a fundamental flaw. Moreover, whether an item is easy to fix is not always clear. Thus, FEMA noted that the adequacy of LILCO's fixes could not be determined in the abstract but, rather, would require a further exercise. Tr. 7506-09, 7914-16, 7950-51. In any event, the fact that LILCO believes the particular matters are readily correctable is a matter for later adjudication, subsequent to a later exercise.

Somewhat inconsistently, LILCO objects to the Board's discussion concerning possible correction of some flaws which were identified. For instance, LILCO objects to the Board's "gratuitous discussions" regarding whether LILCO is capable of correcting certain deficiencies. LILCO Br. at 4; see id. at 62; LBP-88-2 at 63-64, 173-74. LILCO itself had urged, however, that a criterion which the Board should adopt was whether defects could be corrected. That is precisely what the Board did in these instances. LILCO's complaint is not with the Board's process but with the results: LILCO lost and it thus complains. It demonstrates no error, however.

Finally, LILCO attempts to make a major issue out of the question whether a FEMA "deficiency" is the same thing as a fundamental flaw under CLI-86-11. LILCO Br. at 17-18. This issue requires no Appeal Board resolution. The Board suggested that a FEMA deficiency might be more serious than a fundamental flaw. LBP-88-2 at 7-9. However, the issue played no part in the Board's Decision. Indeed, the Governments asserted that for all practical purposes, there was no significant difference between a deficiency and a fundamental flaw, particularly since each rests upon consideration whether a reasonable assurance finding can be made. Gov't. Findings at 7-13. LILCO's attempt to make this distinction into a major issue is much ado about nothing.

III. The Fundamental Flaws Found by the Board

A. Contention EX 41 — The Traffic Impediments

During the Exercise, FEMA introduced two traffic impediments into the scenario by means of "free-play" messages. The message concerning the first impediment -- a multiple vehicle collision involving a gravel truck and three cars -- was input at approximately 10:40. The second impediment, an overturned fuel truck, was simulated to occur at approximately 11:00. LBP-88-2 at 29-30, 34-35.

These accidents were typical of the simulated impediments that FEMA customarily injects into exercises. See Tr. 8539-40. LILCO's response was atypical: it was one of the worst ever witnessed in FEMA Region II. Tr. 8234-35. The Board analyzed in detail what occurred, and when, in connection with these two impediments. LBP-88-2 at 29-40. Rather than repeat those details, we refer the Appeal Board to the two chronologies contained in the Board's Decision. Id. at 29-31, 34-37.

The bottom line is that it took LILCO three and a half hours to simulate clearance of the gravel truck impediment. LBP-88-2 at 29-31. And then, 15 minutes after the impediment was simulated to have been cleared (i.e., at 1:45 on the day of the Exercise) LERO simulated to broadcast an EBS message which announced for the first time that the impediment existed. Id. at 31. Similarly, it took LILCO three hours and forty minutes to deal with the fuel truck impediment. Id. at 34-37. These delayed results were only achieved because of FEMA prompts. Id. at 34, 38-39.

LILCO does not dispute the facts concerning its response to the impediments. Rather, it disagrees with the conclusions the Board drew from those facts. LILCO maintains that: (1) the Board's conclusion that LILCO's Plan is fundamentally flawed because it does not permit lateral communications among field workers lacks factual basis and fails to treat the prior emergency planning decision as res judicata (LILCO Br. at vi, 40-42, 60); (2) the Board erred because it found a fundamental flaw based solely on problems created by one Exercise participant (id. at vi, 2, 51-59); 3) the Board's

finding of a fundamental flaw in communications was based on isolated and unrelated events (id. at 50-51); and, (4) the Board improperly based its finding on actions taken during post-Exercise drills, rather than on events during the Exercise (id. at vi, 46-49).

Before we address LILCO's individual arguments, it is important to set out what the Board did find. Its careful decision regarding Contention EX 41 received cavalier treatment by LILCO.

1. The Board's Decision

The Board began its analysis of LILCO's response to the impediments by discussing the Plan's provisions for removal of impediments. LBP-88-2 at 18-22. The Board then examined the facts relating to the mobilization of LILCO's Road Crews -- the field workers responsible for actually dealing with impediments. Although the Board concluded that the dispatch of Road Crews should have been accomplished more quickly,^{24/} it ultimately determined that the four crews dispatched initially could have handled accidents occurring early in the evacuation process. Thus, the Board found that the slow mobilization of LILCO's full complement of Road Crews did not rise to the level of a fundamental flaw. Id. at 22-28.

Next, the Board set out the chronology of the responses to the two impediments. LBP-88-2 at 28-40. Having synthesized the facts, the Board then analyzed what those facts revealed in terms of LILCO's communications abilities, the actions taken to clear the impediments, and the rerouting schemes developed to mitigate the impact of the impediments. Id. at 42-58. Although the Board noted problems in LILCO's actions to clear the impediments (once the appropriate people had been informed of them), it declined to find a fundamental flaw in this area as well. Id. at 53-55. As to rerouting, the Board concluded that reasonable experts may differ on the merits of proposed rerouting schemes. See id. at 55-58.

^{24/} At the time a General Emergency was declared, less than 25 percent of the Road Crew personnel needed to implement LILCO's Plan had been mobilized. LBP-88-2 at 24.

The Board found, however, that LILCO's untimely response to the two impediments revealed that LILCO's communications were inadequate. Even with allowance for the fact that the impediments were simulated via use of free play messages introduced at the EOC, serious inadequacies remained with how LILCO handled the impediments. These inadequacies, in the Board's view, demonstrated a fundamental flaw. LBP-88-2 at 48-50. Thus, the Board concluded that "the communication system in LILCO's Plan is fundamentally flawed in that it inherently hampers response to unexpected events." Id. at 53. In concluding that this fundamental flaw stemmed from LILCO's communications structure, the Board relied heavily on FEMA's conclusion to the same effect. Id. at 55.

The Board also noted that communications problems persisted during subsequent drills. See LBP-88-2 at 50-51. However, the Board's finding of a fundamental flaw did not depend on this evidence. See, e.g., id. at 61 ("Clearly the problem that was demonstrated to be a fundamental flaw in the LILCO Plan by the February 13, 1986 [Exercise] continued to plague LERO's performance as late as the October 1, 1986 drill"); id. at 217 ("Because the consequences of poor communication during the Exercise resulted in a finding of a Deficiency by FEMA and a Fundamental Flaw by us") (emphases added).

Finally, using the evidence from the post-Exercise drills, the Board concluded that the steps LILCO had taken to fix the problems, steps including the addition of a Traffic Engineer to the staff at the EOC, had failed to cure the fundamental flaw in the Plan — its deficient communication structure and procedures. LBP-88-2 at 63. The Board then expressed doubt as to whether utility personnel can ever achieve the level of performance that professional emergency workers display. Id.

2. Res Judicata Does Not Foreclose the Board's Conclusion That LILCO's Communications Scheme Is Fundamentally Flawed

LILCO argues that the Board's determination that the Plan is flawed because it

does not permit lateral communication among field workers is barred by res judicata or "final agency action." LILCO Br. at vi, 40-42. Certainly, the Board viewed lack of lateral communications between field workers as part of the problem in LILCO's flawed communications scheme. See LBP-88-2 at 251. However, the other problem with LILCO's communications scheme, its relentless verticality, was also noted by the Board. Indeed, it was this aspect of the scheme, with the resultant delays and replication of inadequate or erroneous information, which was most graphically illustrated by LILCO's response to the impediments.

Of course, a necessary implication of LILCO's vertical system is that it lacks lateral lines of communications -- but this lack of "laterality" is not confined to the lack of lateral communications among field workers. Indeed, it was the lack of lateral communications at the EOC which FEMA specifically condemned. FEMA Ex. 1 at 39. Thus, even if it had not also concerned itself with the arrangements for communications among field workers, the Board necessarily condemned the communications plan approved by the prior planning Board by concluding, based on the response to the impediments, that LILCO's communication system "inherently hampers response to unexpected events." See LBP-88-2 at 53.^{25/} It thus appears that LILCO is arguing that the Exercise Board was barred from any inquiry into the adequacy of the communications system in LILCO's Plan.^{26/}

^{25/} LILCO contends that the Decision is "internally inconsistent" and "lack[s] coherent reasoning" because it found both the vertical communications and LILCO's lack of lateral communications among workers in the field to be fundamental flaws. LILCO Br. at 40, n.29. LILCO is wrong. First, it was not solely the lack of lateral communications among field workers which the Board condemned. See LBP-88-2 at 53, 250. Second, as we discuss above, a solely vertical system necessarily implies a system lacking lateral capabilities.

^{26/} In this regard, it must be recognized that, even if it were found that the Board improperly attributed the problems it found, in part, to the inability of field workers to communicate with one another, the fact remains that FEMA, the Governments, and all three judges below found fundamental flaws in LILCO's implementation of its communication system. See LBP-88-2 at 43-44, 254-56.

The doctrine of res judicata, however, is inapplicable to the Board's finding of a fundamental flaw in LILCO's communications system. The Board's finding that LILCO's communications plan was shown, during the Exercise, to be untenable does not intrude on the prior planning Board's finding that the Plan appeared workable when viewed in the abstract. To hold otherwise would completely ignore the two-step nature of the emergency plan evaluation process called for by the regulations. See Section II.A. above.^{27/}

The OL-3 Board's conclusion was, moreover, based on assumptions which even the limited simulation of emergency conditions during the Exercise proved inaccurate. For example, the OL-3 Board had relied on LILCO's representations that:

Traffic guides need not communicate directly with each other to ensure coordinated information concerning traffic conditions because that information will be assessed at the staging areas and directions from staging areas to traffic guides can be given. Personnel at staging areas, in turn, can communicate with the EOC traffic control point coordinator who will analyze traffic conditions on a large scale and give directions to those at the staging area.

PID, 21 NRC at 730-31. Similarly, LILCO had maintained that "[s]ince actions to be taken in the nuclear emergency situation are preplanned . . . the need for information to flow from the field to the control organizations and back down again is predominant over the need for workers to solve problems on their own." Id., at 731. These representations and LILCO claims were proved wrong during the Exercise. Indeed, what the Exercise

^{27/} As Judge Shon (who had also served on the OL-3 Board) noted during trial, the prior planning Board made "predictive" findings. See Tr. 1265. Those findings were based on the evidence then available. It was within the Exercise Board's mandate to reach different conclusions, if Exercise events established that LILCO's paper plan could not be implemented under the simulated emergency conditions of the Exercise. Moreover, to have turned a blind eye on what the Exercise revealed about the workability of LILCO's communications scheme would have been particularly inappropriate, since, as the Exercise Board noted, the OL-3 Board hardly gave LILCO's vertical (or "administrative") communications structure an enthusiastic endorsement. LBP-88-2 at 52, 254; see PID, 21 NRC at 737 ("[W]e find that LILCO's administrative communications system is a useful provision for emergency response, even though there can be little doubt that the broadly versatile system the police advocate is in the final analysis a superior one.").

demonstrated was that the expert opinion first advocated by Suffolk County's police witnesses during the planning litigation was correct: not all actions during an emergency can be preplanned; and even if a vertical system works on paper, it may not work in real life.

LILCO questions the Board's conclusion that lateral communications between field workers could have helped LILCO respond to the impediments. LILCO asserts that there was no evidence that its problems resulted from lack of communications between field workers or that lateral communications would have helped. LILCO Br. at 42, 60. Of course, the Exercise did not provide direct evidence on this point. LILCO's vertical plan — the one which was exercised — could not yield this information specifically. The Board did have before it, however, evidence of the failure of LILCO's vertical plan, and the testimony of expert police witnesses describing how the problems LILCO faced during the Exercise could have been better and more quickly addressed by communications between knowledgeable personnel in the field. See, e.g., Roberts et al., ff. Tr. 1134 ("SC EX 41 Testimony") at 76-78; Tr. 1194-95, 1198-99, 1246-48, 2338-39. This evidence affords ample support for the Board's finding.

3. It Was Not All the Evacuation Route Coordinator's Fault

LILCO attempts to minimize the seriousness of its problems in handling the traffic impediments by arguing that the problems were created by a single Exercise participant, the Evacuation Route Coordinator. LILCO Br. at vi, 59. Indeed, LILCO asserts that "the Board took the Evacuation Route Coordinator's inaction and, without explanation, parlayed that single individual's response into two 'fundamental flaws,' one in communications and the other in the training program." Id. at 2.

First, even if LILCO's characterization of the Board's conclusion were correct, the fact that the LILCO Plan is structured so that a "performance problem" by one individual can compromise LILCO's entire impediment response is, in itself, a fundamental flaw.

See Section II.B.2 above. Thus, LILCO's own argument underscores the inherent unworkability of a communication scheme structured in a solely vertical manner.

Second, LILCO's argument is not supported by the facts. Many LILCO employees made errors in responding to the impediments and the problems caused by them. For example, LILCO's inadequate and untimely response to the gravel truck impediment can also be attributed to the Lead Traffic Guide at the Patchogue Staging Area, the Transportation Support Coordinator at the EOC, and the Evacuation Coordinator and others within LERO responsible for preparing and issuing EBS broadcasts or other information to the public. Even more LILCO personnel were to blame for the delays and problems associated with the fuel truck impediment, including the Lead Traffic Guide at Port Jefferson, the Road Logistics Coordinator, the EOC Communicator, the Port Jefferson Staging Area Coordinator, the Traffic Control Coordinator, and, again, the Transportation Support Coordinator and the Evacuation Coordinator and others responsible for preparing and disseminating emergency information to the public.^{28/}

Thus, while the Evacuation Route Coordinator was clearly a key player in LILCO's impediment response debacle, he did not stand alone. Many LERO personnel made errors in responding to the impediments: if anything, LILCO's inadequate response was a team effort.

4. The Board's Finding of a Fundamental Flaw in Communications Is Supported by Substantial Evidence in the Record

LILCO argues that the Board "strung together" a series of isolated events to "create" a fundamental flaw in communications. LILCO Br. at 50. LILCO's complaint appears to be that because its numerous communications failures did not share the same

^{28/} See generally, FEMA Ex. 1 at 36, 37, 41; Lieberman et al., ff. Tr. 272 ("LILCO EX 41 Testimony"), at 15, 25, Atts. B.5, B.8, C.10, C.20, C.21; Suffolk EX 41 Testimony at 24, 36-37, 44, 46-47, 49, and Att. 2; SC Exs. 15, 16; Tr. at 543-44, 564, 646-50, 827, 855, 996-99; see also LBP-2-88 at 31, 35, 36.

direct causes, the Board had no basis for finding them all to be "communications" problems. See LILCO Br. at 3.

LILCO has missed the point. In each instance, there was a demonstrated failure -- whether caused by the communication system itself, the LERO workers' inability to realize that a "planned" response was inadequate or superceded by events, the LERO workers' failure to follow the Plan, or an equipment problem -- to convey timely, accurate, and adequate information to the persons who needed it. The effects of these failures, moreover, were intensified by LERO's passive acceptance of the communications problems.

For example, the LERO Spokesperson did not realize the need to obtain details about the impediments or attempt to get them. When the xerox machine broke down at the ENC, no alternative action to get necessary information to LILCO's rumor control personnel was taken. When Dr. Brill gave out inaccurate information at the ENC, no one immediately corrected him. Nor did anyone recognize the inconsistencies and ambiguities in the EBS messages and act to correct or explain them. Even after it was recognized that the Evacuation Route Coordinator's inaction had delayed LILCO's initial response to the impediments, no action was taken to make up the lost time. Thus, there was ample evidence for the Board's finding of a pervasive "all encompassing" communications flaw in LILCO's Plan. The system in the Plan is cumbersome, and LILCO's personnel demonstrated themselves incapable of overcoming the built-in shortcomings of that system.

Finally, LILCO argues that the Licensing Board erred because the Board based its finding of a fundamental flaw in LILCO's response to the impediments on actions taken in post-Exercise drills. We address the issue of the post-Exercise drills in Section III.D below, and thus will not discuss them in detail here. The Governments do emphasize, however, that the Board found that a fundamental flaw was demonstrated during the Exercise. LBP-88-2 at 61, 217. The evidence of the post-Exercise drills confirmed that

the same problems persisted, and effectively rebutted LILCO's claim that the impediment response problems during the Exercise were due just to the anomalous performance of the Evacuation Route Coordinator during the Exercise. See id. at 216.

B. Contentions EX 38, 39 and 22.F — Public Information

LILCO's problems with communications also dogged its efforts to implement its plan for disseminating information to the media and the public. As the Board stated at the beginning of its Decision:

Breakdowns in communications occurred within LERO as well as between LERO/LILCO on the one hand and the public and media on the other. Errors occurred not only with respect to procedures, but also with respect to the substance of the information transmitted. Confusing and conflicting information was furnished to the public, and erroneous information to the media.

LBP-88-2 at 3-4.

LILCO alleges an inability to understand how many fundamental flaws the Board found in LILCO's public information plan. See LILCO Br. at 27. There is no mystery: the Board found three fundamental flaws. First, the Exercise revealed a fundamental flaw in LILCO's methods for getting copies of the EBS messages into the hands of the people who need them (i.e., the media representatives at the ENC and the personnel in LILCO's rumor control system who are responsible for responding to telephone inquiries from the public and the media) and in the information conveyed by the EBS messages, because the messages contained numerous inconsistencies. See LBP-88-2 at 138-39, 168.^{29/}

Second, the Board found that LILCO's inability to give accurate information at press conferences constituted a fundamental flaw. LBP-88-2 at 148, 158. Finally, the Board concluded that the confusing and conflicting information LILCO promulgated during the Exercise demonstrated a fundamental flaw because, as a result of those

^{29/} Under the LILCO Plan, EBS messages are generated at the EOC, then sent to the ENC. LILCO EX 38/39 Testimony at 13; OPIP 3.8.1.

information problems, it is improbable that LILCO could achieve the controlled evacuation required by the Plan. Id. at 170-71.

In its scattered discussion of the Board's handling of the public information issues,^{30/} LILCO has failed to describe accurately the evidence the Board relied on, and the sense and methodology of its Decision. For example, in discussing the "isolated events" at the ENC which the Board relied on, LILCO summarizes the public information problems as the failure of two copying machines, two incomplete answers by the LERO Spokesperson, two remarks by a LILCO consultant, and three phrases from EBS messages. See LILCO Br. at 9. The Board had before it, and relied on, far more than this. See Section III.B.1 below. LILCO then criticizes the Board for failing to assess the health and safety effect of each problem revealed by the Exercise. See, e.g., LILCO Br. at 21, 27, 31, 33, 35, 66. Having excised much of the evidence the Board relied on and the Board's reasoning, LILCO then accuses the Board of reaching a decision without basis and of failing to articulate its rationale with sufficient clarity. Id. at 59-60, 63-69. Finally, LILCO also charges the Board with two additional errors: in admitting Contentions EX 38 and EX 39 in the first place (LILCO Br. at 20-22); and, in intruding on "final agency action" when it identified problems in the EBS messages (id. at 44).

The foregoing criticisms are without merit. Indeed, simply reading the Board's Decision (let alone examining the extensive record evidence cited by the Board and underlying the conclusions it reached) reveals that the Board did not err. We thus begin detailed discussion of these contentions by setting forth the Board's ruling.

1. The Board's Decision

At the outset of its discussion on these contentions, the Board sets out and resolves one area of dispute: the role of the media. The Board took a middle ground between the parties' viewpoints on this issue, concluding that if the media is not

^{30/} See LILCO Br. at vii, 3, 9, 20-21, 22, 27-36, 44, 59-60, 65-66.

provided with clear, timely and accurate information, it will be at best a neutral influence and at worst detrimental to an orderly response. LBP-88-2 at 124-27. The media has an "important role to play in ensuring an orderly public response to an emergency." Id. at 138-39.

The Board agreed with LILCO, the Staff and FEMA in rejecting the Governments' argument that the ENC was activated too late in the emergency. LBP-88-2 at 127-29. The Board then set out the undisputed facts concerning the delays in LILCO's posting and distribution of news releases and EBS messages to the media and to rumor control. Id. at 130-39. FEMA had assessed a deficiency as a result of LILCO's delays in providing EBS messages to the media, and up-to-date information to rumor control. Id. at 133-34. The Board discussed LILCO's proposed remedy to the problem, but noted that FEMA had withheld review of these fixes and that, even if FEMA finds LILCO's changes facially adequate, the changes must be evaluated in an exercise. Id. at 137. The Board agreed with the Governments that failure to keep rumor control personnel advised of the current state of emergency response was a fundamental flaw; the evidence showed that the persons LILCO had designated to field inquiries from the public were consistently two hours behind the information available to the public via the EBS messages. Id. at 138. The Board added:

Consistent with our view that the media have an important role to play in ensuring an orderly response to an emergency, we agree with FEMA's assessment of a deficiency with regard to the failure to promptly provide the EBS messages to the media, and regard that failure as an integral part of the above mentioned fundamental flaw.

Id. at 138-39.

Next, the Board turned to the press conferences simulated during the Exercise. After setting out the facts established at trial concerning the LERO Spokesperson's 45 minute delay in informing the media of the noon evacuation recommendation, the Board concluded that the Spokesperson should have immediately conveyed this information.

Her waiting might have given rise to the inference that information was being withheld. The Board did not deem this problem a fundamental flaw in and of itself, however. LBP-88-2 at 141-42. The Board also agreed with LILCO that (with the exception of information about the impediments), most of the information given out by the Spokesperson was accurate. It concluded that "[t]he fact that the information was not adequate to respond to the media's needs clearly results from the fact that the Spokesperson was reporting simulated events and thus did not have detailed information." Id. at 145 (emphasis added). She should, however, at least have been able to respond to questions concerning the impediments to the extent the details sought were written in the free-play messages which had introduced the impediments at the EOC. Id. at 145-46. The LERO Spokesperson, moreover, erroneously reported the gravel truck impediment cleared more than an hour before it actually was,^{31/} and, three hours after the fuel truck impediment arose, she was unable to give the details concerning it. Id. at 146.

The Board then analyzed the evidence adduced concerning alleged misstatements made to the press at the ENC. It dismissed two of these misstatements, although proven, as trivial. LBP-88-2 at 147. It found the Spokesperson's misstatement of the Protective Action Recommendation ("PAR") at the first press conference more serious; she should have been able to give complete and accurate information concerning the PARs. The Board also found that LILCO or LERO should have corrected Dr. Brill's erroneous dose calculation based on his assumption of an incorrect "weathering factor" and they should have taken precautions to ensure that Dr. Brill would not contradict LERO's PARs.^{32/} Id. at 148. The Board found that these failures, together with the

^{31/} Further, after she told the media the gravel impediment had been cleared, an EBS message telling the public to avoid it was broadcast. See LBP-88-2 at 31.

^{32/} LILCO claims that the Board's conclusion that no one corrected Dr. Brill's querying of the LERO evacuation recommendation "is in direct conflict with the uncontradicted testimony of LILCO witnesses during the hearing." LILCO Br. at 33. (footnote continued)

Spokesperson's inability to provide accurate responses to questions about the traffic impediments, rose to the level of a fundamental flaw. Id.

After concluding that LILCO's press conference efforts were fundamentally flawed, the Board considered the allegations concerning rumor control's handling of simulated inquiries from the media and the public during the Exercise. Although the Board found that the Governments had proven the alleged time lapses in rumor control's response, it noted that accuracy is more important than immediacy of response and thus found no fundamental flaw. LBP-88-2 at 151-52. The Board then considered the adequacy of the responses given. Although the Board agreed that LILCO's rumor control personnel gave incomplete responses to numerous callers, and that this illustrated a lack of good judgment, this lack of judgment did not, in the Board's view, rise to the level of a fundamental flaw. Id. at 153-56.

The Board also devoted extensive discussion to the adequacy of the contents of the EBS messages simulated during the Exercise. It pointed out that LILCO agreed that some of the EBS messages contained information about the Traffic Guides which was potentially misleading, but declined to consider this matter further, since LILCO had agreed to fix the messages. LBP-88-2 at 160. The Board also rejected the County's arguments that the messages should have contained more specific information about the radiation risk. Id. at 163-64.

Next, the Board set out three problems with the EBS messages which were conceded by LILCO.^{33/} The Board noted that, aside from the three problems even

(footnote continued from previous page)

This mischaracterizes the record. See Tr. 3572-74; LILCO EX 38/19 Testimony, Att. P at 59-61. The Governments submit that a clear issue of credibility arose here, and that the Board resolved it against LILCO.

^{33/} EBS No. 2 stated that "A very minor release has occurred" and then, in the same message, stated that a release was "not imminent." This message was recognized as additionally inconsistent and confusing because it failed to explain why dairy animals needed to be sheltered while people were advised to take no action (aside from figuring out what evacuation zone they lived in). EBS No. 7 reported an expected thyroid dose
(footnote continued)

LILCO conceded were in the messages, the County's witnesses testified about additional problems. This testimony was "essentially uncontroverted," and the Board found three of the problems significant: the messages' reference to dose projections, while the LILCO news releases and LILCO Spokesman used the term dose rate projections; the use of various adjectives to describe the magnitude of the release without providing some quantification of the terms; and, finally, the failure of the messages to explain the emergency classification levels or put them in perspective. LBP-88-2 at 167.

LILCO variously attempts to dismiss the problems in the EBS messages as "criticisms of a few phrases" (see LILCO Br. at 3), "a few inconsistencies" (see id. at 35), and "three statements occur[ing] in the context of eleven EBS messages" (see id. at 34). In addition to thus understating the number of problems, LILCO fails to point out that many problems occurred in more than one message, and that each message was simulated to be aired repeatedly at 15 minute intervals.

The OL-3 Board had concluded that "reasonable people need and will seek information on which to base their actions, particularly in the urgent conditions of emergency. If the information is inadequate or conflicting, they may act inappropriately. If it is complete and consistent, they will accept and use it as intended." PID, at 21 NRC at 662. Because during the emergency planning litigation, LILCO's experts convinced the Board that LILCO's planned public information efforts would overcome Long Islanders preexisting fear of radiation and LILCO's lack of credibility, and ensure that LILCO's PARs would be followed, that Board ruled against the Governments on the issue of shadow evacuation. It noted, however, the contingent nature of its predictive finding:

The Board's ultimate finding on this contention strongly depends on there being clear nonconflicting notice and instructions to the public at the time of an accident. If for any reason confused or conflicting

(footnote continued from previous page)

of 40 percent of the EPA evacuation guidelines at 10 miles downwind of Shoreham, while simultaneously and without explanation telling people that if they were outside the 10-mile zone, there was no reason to take any action. LBP-88-2 at 165-67.

information was disseminated at the time of an accident, the Board accepts that a large excess evacuation on Long Island could materialize.

Id. at 670.

The Exercise Board correctly concluded that LILCO's public information efforts during the Exercise belied its earlier representations that it could achieve compliance with its protective action recommendations through dissemination of consistent, timely, accurate information, thus bringing the OL-3 Board's conclusion that an excess evacuation could occur into play. Since the controlled (i.e., guided by Traffic Guides) evacuation^{34/} required by LILCO's Plan probably could not be achieved, the Board found, as a result, that there was a fundamental flaw in the Plan. LBP-88-2 at 169-172.

2. Contentions EX 38 and EX 39 Were Properly Admitted

LILCO argues that the Board erred in admitting Contention EX 39 because rumor control is not a primary means of communication under the LILCO scheme. Thus, its shortcomings are not likely to affect the health and safety of the public. LILCO Br. at 20-21. LILCO also argues that, in admitting EX 38, the Board "ignored that threshold element of the fundamental flaw test", i.e., that the alleged flaw affect the public health and safety. Id. at 22. Neither argument has merit.

^{34/} LILCO maintains that the Exercise Board merely speculated that a shadow evacuation could have occurred and that a controlled evacuation could not be achieved. LILCO Br. at 35. The Board did not "speculate." It made a sound finding, fully supported by the evidence adduced in both the Plan litigation and the Exercise litigation.

LILCO also claims that the Board erred in concluding that a controlled evacuation was required and that the Board "never gave notice nor took evidence on whether a controlled evacuation was required." Id. We address in Section III.C. below LILCO's belated claim that a controlled evacuation was not required. As to LILCO's complaints concerning lack of notice of this issue, the Board's order ruling on the admissibility of contentions clearly put LILCO on notice:

If Intervenors prevail on Contentions EX 38 and EX 39 and the evidence is sufficient to conclude that a large shadow evacuation will occur, Intervenors will be free to claim that this constitutes a fundamental flaw in the plan because the evacuation could not be controlled.

Oct. 3 Order at 26 (emphasis added).

LILCO's assignment of error concerning the admission of Contention EX 38 should be rejected outright. LILCO at no time prior to this appeal objected to the admission of the contention:

LILCO does not oppose the admission of Contention EX 38 to the extent that the enumerated problems (1) involve communications of the offsite organization and (2) are alleged to collectively disclose a systemic problem in the dissemination of information.

LILCO's Objections to Intervenors' "Emergency Planning Contentions Relating to the February 13, 1986 Exercise, Aug. 15, 1986 ("LILCO Objections") at 26.^{35/} This is precisely what the contention alleged and the Board found: the problems litigated under EX 38 collectively disclosed a systemic problem in LILCO's ability to disseminate information at the ENC.

LILCO did object to the admission of Contention EX 39, urging the same grounds as raised in this appeal. LILCO's Objections at 27; see also id. at 124. The Board's treatment of this argument at the contention admission stage is as correct today as it was then:

LILCO's objection is not persuasive since the numerous bases asserted might collectively reveal a fundamental flaw in the plan if proved. The ability to deal with rumors or inquiries from the public was thought to be important enough to test by the designers of the exercise and we assumed from that that it is material to a licensing decision.

Oct. 3 Order at 21. The experience of Three Mile Island showed the importance of rumor control in achieving an orderly response from the public; it was considered important enough to be mandated in the regulations. See NUREG 0654 § II.G.4.c.; see also 10 CFR § 50.47(b)(7). Certainly LILCO has presented no basis for questioning the judgment of the regulators that coordinated arrangements for dealing with rumors are

^{35/} LILCO did object to the admission of subparts EX 38.A and EX 38.O. LILCO Objections at 124. But the Board resolved subparts A and O in LILCO's favor. LBP-88-2 at 130, 157.

necessary in order to provide reasonable assurance that adequate protective measures can and will be taken in the event of a radiological emergency.

3. There Was Ample Basis in the Record for Finding That LILCO's Plan for Disseminating Public Information Is Fundamentally Flawed

The basic fallacy in LILCO's arguments that the Board erred in finding LILCO's public information plan fundamentally flawed is LILCO's assertion that the Board had to find that each problem, considered in isolation, had to affect the public health and safety.^{36/} This simply is not the test. The Board could not consider Dr. Brill's misstatements and the Spokesperson's misstatements each separately from the other. It had to consider the impact of all the inadequacies on the overall effectiveness of LILCO's press conference effort. Then, to resolve the issue left open by the OL-3 Board, it had to consider the integrated impact of LILCO's press conferences, its dissemination of the EBS messages, the contents of the EBS messages themselves, and the rumor control system on the information environment as a whole.

Based on the extensive evidence before it, the Board found (as part of LILCO's pervasive problems in communications generally) that LILCO cannot communicate emergency information and PARs to the public. LPB-88-2 at 171, n. 48. The ability to communicate such information is the sine qua non of protecting the health and safety of the public in a radiological emergency. It thus is not surprising that the Board felt itself under no compulsion to intone this tautology ritualistically at every turn. Nonetheless, the Board did explicitly state this truism often enough to satisfy even LILCO's strictures. LBP-88-2 at 148, n.42 ("... the provision of inconsistent information by LERO, LILCO, or its consultants in an emergency situation is detrimental to the public health and safety."); id., at 158 (to find a fundamental flaw in

^{36/} See, e.g., LILCO Br. at 33 ("No impact on the public health and safety by Dr. Brill's isolated opinion was shown."); id., at 32 ("... one response, taken in the light of a day's worth of press briefings and over 100 questions answered for the public, truly elevates the trivial.").

LILCO's delay in providing EBS messages to rumor control but not the media ". . . would exalt form over substance to the detriment of public health and safety."^{37/}

4. The Board Did Not Err in Assessing the Adequacy of the EBS Messages Used During the Exercise

LILCO asserts that the Board erred because its fundamental flaw finding was partly based on problems in the prescribed EBS messages "reviewed and accepted" during the prior planning litigation. LILCO Br. at vii, 30, 44.

When these messages were litigated in the abstract, it was not known what other information LILCO would be disseminating in conjunction with them. Thus, for example, it was not known that LILCO would fail to put the Emergency Classification Levels into perspective, or fail to explain the differences between and the reasons for LERO's use of "dose projections" and LILCO's use of "dose rate projections." It also was not known that LILCO would fail to explain why animals needed to be sheltered, while people just needed to know where they live, or that some member of the public information staff would "edit" EBS No. 2 so that it would simultaneously state that "no release was imminent" and that a "minor release had occurred."

In short, the problems in the prescribed EBS messages were not focused until actual implementation during the Exercise demonstrated which messages would be used, in which order, and in conjunction with what other information. The Exercise performed its function in revealing these problems, and the Board performed its

^{37/} Suffolk County submitted evidence, drawn from survey data and focus group studies, demonstrating the effect of the messages LILCO used during the Exercise on the Long Island public, and documenting the high percentage of the population who would use LILCO's rumor control system in a real emergency. Evans et al., ff. Tr. 3786 ("SC EX 38/39 Testimony") at 152-168, 172-77, 188-222, Att. 14. This evidence was admitted, but the Board found it unnecessary to consider it, given its resolution of the issues on other grounds. LBP-88-2 at 171. If there were doubt concerning the impact LILCO's public information efforts would have on the public, this evidence must be considered. The Governments submit that it would put any such doubts to rest.

function in assessing them.^{38/} Once these problems were clearly revealed by the Exercise, the Board would have been derelict in its duty had it ignored them.

C. Contention EX 40 — Mobilization of Traffic Guides

1. The Board's Decision

LILCO's Plan requires Traffic Guides to guide evacuees and encourage them to adhere to the evacuation routes prescribed by the Plan. They are to accomplish this by using traffic control strategies and techniques, such as blocked lanes, barricades, and the channelization of portions of the evacuation network. Roberts et al., ff. Tr. 2180 ("SC EX 40 Testimony") at 16; Plan, Appendix A, at IV-5 thru -72e and V-2; OPIP 3.6.3. They are also expected to expedite traffic flow out of the EPZ by controlling and routing traffic through selected intersections, otherwise known as Traffic Control Points ("TCPs"). SC EX 40 Testimony at 16; see OPIP 2.1.1. The evacuation time estimates for a controlled evacuation are based on the assumption that "[r]equired personnel to control traffic are mobilized and in place at the outset of the evacuation process, or soon thereafter." Plan, Appendix A, at V-2; see LBP-88-2 at 67-68.^{39/}

^{38/} The Appeal Board should also be aware that, although LILCO did move to strike portions of Suffolk County's public information testimony (see LILCO's Motion to Strike Portions of Suffolk County's Testimony on Contentions EX 38, 39, 22.F, 44, 40.C and 49.C (Public Information), April 6, 1987), it did not seek to strike the evidence concerning the EBS messages. Tr. 3112-13. In fact, LILCO attached copies of the Exercise messages to the testimony of its own witnesses, and repeatedly made the point that the EBS messages were the primary means of communication with the public; it also argued that since LILCO's EBS messages were so good, the other problems with LILCO's public information would not matter very much. See, e.g., LILCO EX 38/39 Testimony at 5-7, 11-14 and Att. B. Given this, it is much too late for LILCO to attempt to withdraw the EBS messages from issue.

^{39/} The Board accepted for purposes of its Decision that safety is reasonably assured by a controlled evacuation. See LBP-88-2 at 84-86. A controlled evacuation is achieved if "mobilization of all field workers [is] substantially completed in three hours [after declaration of a Site Area Emergency] and Traffic Guides [are] in place approximately one hour after an evacuation recommendation [is issued]." Id. at 72, 76, 84-86; see also PID, 21 NRC at 720, 723; Tr. 1665-68. According to the Board, Traffic Guides must be in place within one hour, because that is when congestion of the roadways is expected to occur. If they arrive later, they "lose" their ability to expedite traffic flow. LBP-88-2 at 79, 84; see also LILCO Br. at 23, n.15.

FEMA structured the Exercise to test the PID's assumption that LILCO could mobilize quickly enough to conduct a controlled evacuation.^{40/} See FEMA Ex. 1, at xiv-xviii, 14, 21-22; Tr. 8136, 8569. For purposes of evaluating the results of this test, Traffic Guides had to be substantially in place no later than the onset of traffic congestion, or one hour after the evacuation order was issued. LBP-88-2 at 84. Applying this standard, the Board found that "large numbers of TCPs were not staffed until well after traffic congestion would have occurred." *Id.* at 86. FEMA had already reached the same conclusion, having given LILCO a deficiency with respect to its ability to mobilize Traffic Guides in a manner sufficient to protect public health and safety. LBP-88-2 at 70-71; FEMA Ex. 1 at 74-75; Tr. 8093; see also SC Ex. 106; FEMA Ex. 1 at 64. This conclusion was concurred in by the Staff and the Governments. See LBP-88-2 at 82-83, 87. Accordingly, the Board concluded that a controlled evacuation would probably not have been achieved, and found LILCO's Plan, as it applies to the staffing of TCPs, fundamentally flawed. *Id.* at 84-87.^{41/}

There clearly is substantial evidence to support the Board's conclusion. Traffic Guide mobilization took far longer than the maximum times assumed by the PID and

^{40/} The FEMA scenario gave LILCO enough time to achieve a controlled evacuation. LILCO attempts to confuse this issue by stating that FEMA's simulated accident was "fast breaking." LILCO Br. at 23. FEMA devised a scenario, however, in which a Site Area Emergency, which required Traffic Guide mobilization, was declared at 8:19, and an evacuation order was issued at 10:24. This meant that the PID's three hour mobilization (11:19) and one hour staffing (11:24) assumptions could have been met under the Exercise scenario. The scenario thus fairly tested whether LILCO could comply with the PID, and its own Plan requirements for staffing, to achieve a controlled evacuation. SC EX 40 Testimony at 17; Plan, Appendix A, at V-2.

LILCO also argues that the OL-3 Board held that "under some accident sequences" LILCO is not required to achieve a controlled evacuation. LILCO Br. at 26, n.20. That is true, but irrelevant. While some accidents can hypothetically occur so quickly that no one could mobilize fast enough to assist the evacuating public, such a scenario was not used during the Exercise.

^{41/} As one Licensing Board has noted, "[a]rguably, no more critical item in emergency planning exists than that which deals with the movement of people and vehicles during an evacuation." Pennsylvania Power & Light (Susquehanna Steam Electric Station, Units 1 and 2), LBP-82-30, 15 NRC 771, 796 (1982).

required by LILCO's own Plan. The Licensing Board noted that "[f]or purposes of this decision," LILCO's Traffic Guides were to be substantially in place one hour following an evacuation recommendation." LBP-88-2 at 84.^{42/} LILCO's performance clearly was fundamentally flawed. At most, only 12 of the 93 TCPs (13%) for which staffing times were known were timely staffed. Lieberman and Weismantle, ff. Tr. 1548 ("LILCO EX 40 Testimony"), Atts. B, C, and D. This uncontested fact, based upon LILCO's own data, strongly supported the Board's conclusions that LILCO's plan for mobilizing its Traffic Guides was fundamentally flawed.^{43/}

This conclusion was consistent with FEMA's findings as well. FEMA had concluded that LILCO's slow staffing of TCPs from Riverhead constituted a deficiency. FEMA Ex.

^{42/} The Governments' believe that Traffic Guides must mobilize much sooner than one hour after an evacuation is ordered if health and safety are to be protected. The protection of public health and safety requires that Traffic Guides be at their TCPs at the "onset" of the evacuation process. See, e.g., Tr. 2202-04. In the Governments' view, the evacuation process would occur even before LILCO orders an evacuation. Id. Suffolk's witnesses, "experts in practical problems of the streets," contended that at a minimum, however, Traffic Guides must be in place at least "within minutes" after the evacuation order is issued. See LBP-88-2 at 77-78, 87; Tr. 2206, 2208, 2224.

LILCO's testimony regarding when the evacuation process would likely begin was inconsistent. On the one hand, LILCO's witness, Mr. Lieberman, testified that the process would begin approximately 20 minutes after the public was first advised to evacuate. Tr. at 1608. At other times, LILCO argued that the relevant time period for manning TCPs was one hour. LBP-88-2 at 72.

Under Suffolk County's standard, as well as LILCO's 20 minute standard, LILCO totally failed the Exercise, as none of LILCO's 132 TCPs was staffed during that time frame. Even if the one hour time is accepted as the standard, however, LILCO failed; 87% of the TCPs were not staffed within one hour. LILCO EX 40 Testimony, Atts. B, C, D. Because LILCO failed "under any party's view," the issue of when the evacuation process would have begun was not regarded as particularly important. LBP-88-2 at 82, 87-88.

^{43/} LILCO asserts, but is plainly wrong in claiming, that two staging areas mobilized in a "substantially" timely manner. LILCO Br. at 3-4. None of the 58 TCPs in Port Jefferson was staffed within one hour following an evacuation recommendation. Moreover, substantial numbers were unstaffed an hour and one-half, two hours, and even more after the order to evacuate was issued. Further, although the Riverhead data were "lost," at most two of seven (28%) TCPs were timely staffed, and those were among the first Riverhead TCPs to be staffed under the LILCO Plan. LILCO EX 40 Testimony, Atts. C and D; Plan, OPIP 3.6.3, Att. 7; Appendix A, Fig. 8.². Consequently, they were likely staffed earlier during the Exercise than were the other Riverhead TCPs, for which staffing times were never made available by LILCO.

1 at 75; LBP-88-2 at 84-85. Once FEMA learned (subsequent to the Exercise) of LILCO's late staffing from Port Jefferson, it also found the performance demonstrated by those Traffic Guides deficient. Even with respect to the Patchogue Staging Area, FEMA concluded that Traffic Guides were so unfamiliar with the Plan that a "near" deficiency was found. See FEMA Ex. 1 at 64, 67; SC Ex. 106. Based upon this substantial evidence, the Board concluded:

Clearly, large numbers of TCPs were not staffed until well after traffic congestion would have occurred. Consequently, a controlled evacuation would probably not have been achieved. We agree with FEMA that a deficiency should be assessed, and conclude that LERO's performance demonstrates a fundamental flaw.

LBP-88-2 at 86.

2. LILCO's Two Arguments for Reversing the Board's Contention EX 40 Finding Lack Merit

Unable to attack the substantiality of the Board's Contention EX 40 finding head on, LILCO advances two other arguments. First, it argues that the Board inconsistently applied the fundamental flaw standard in Contention EX 40 by ignoring "the need to search for public health and safety effects that might have resulted from delays in mobilization of LERO Traffic Guides." LILCO Br. at 23. Second, LILCO argues that the Board failed to treat prior litigation as final agency action. Id. at 42-44. Neither argument is correct.^{44/}

LILCO's first argument is premised on one sentence from the Board's holding, which LILCO takes out of context:

Nor can we accept LILCO's invitation to consider whether the delay would have a significant effect on public health and safety.

LILCO Br. at 26. This statement by the Board cannot be read to support LILCO's

^{44/} LILCO also asserts, in passing, that the Board should have excluded Contention EX 40 from the Exercise proceeding. LILCO Br. at 42. This assertion cannot properly be raised, since LILCO essentially did not oppose Contention EX 40's admission. See LILCO Objections at 2, 62-63; Oct. 3 Order at 22.

assertion that the Board made no finding on health and safety.^{45/} To the contrary, the Board made such findings. Indeed, it agreed with FEMA that LILCO's failure to staff large numbers of TCPs until well after an evacuation order had been issued and traffic congestion had occurred constituted a deficiency, meaning that the public health and safety would have been impacted. LBP-88-2 at 86.

LILCO asserts that the Board erred in making this safety finding, citing for support an interim March 11, 1988 order by the current emergency planning (OL-3) Board.^{46/} According to LILCO, this order held that LILCO is not required to effect a controlled evacuation or even to have a traffic control plan. LILCO Br. at 26, n.20. LILCO is wrong.^{47/}

First, the PID, CLI-86-13,^{48/} and the Susquehanna decision (15 NRC 771) all make clear that, while the regulations do not explicitly address traffic control, it is nevertheless necessary to meet the requirement in 10 CFR § 50.47(b)(10) that a range of protective actions be provided for the public. In addition, the regulatory need for traffic control is recognized by NUREG 0654 and Appendix 4 thereto. The March 11 order relied

^{45/} Read in context, all the quoted language means was that LILCO's failure even to come close to implementing a controlled evacuation was sufficient for the Board to conclude that LILCO could not protect the public. See LBP-88-2 at 85-86.

^{46/} Memorandum and Order (Denying in Part and Granting in Part LILCO's Motion for Summary Disposition of Contentions 1, 2 and 9 -- Immateriality), March 11, 1988, at 6-8.

^{47/} This claim is inconsistent with LILCO's position below. LILCO argued to the Licensing Board that the principal standard against which the manning of TCPs should be judged was the PID standard necessary to achieve a controlled evacuation. LILCO acknowledged this standard was linked to public health and safety. LILCO Findings at 99-102.

The Board agreed that LILCO's Traffic Guides had to be mobilized in time to achieve a controlled evacuation. LBP-88-2 at 84, 86. Based upon the Exercise results, the Board concluded that a controlled evacuation would not have been achieved. *Id.* at 86. Faced with this finding, LILCO now attempts to argue that a controlled evacuation is unnecessary. This new argument should be summarily rejected.

^{48/} Long Island Lighting Company (Shoreham Nuclear Power Station, Unit 1), 24 NRC 22 (1986).

upon by LILCO in no way contradicts these regulatory provisions or the referenced case law.

Second, the purpose of the Exercise proceeding was to assess the results of the Exercise. LILCO attempted a controlled evacuation. It did not attempt an uncontrolled one. Thus, the Board was correct in assessing what was actually attempted and not speculating on some different test that did not occur.

Further, LILCO's own brief cuts against LILCO's argument and demonstrates why it is misplaced. As noted by LILCO (see LILCO Br. 42-43), the PID was binding on the Exercise Board, for purposes of its findings, unless a different holding were confirmed by Exercise events or results. LILCO cannot rely on the prior emergency planning decision only when it favors LILCO. The Staff recognized this. See LBP-88-2 at 85-86. So did the Board. See id. at 86-87 and n.23. The traffic control plan tested in the Exercise was the one approved by the PID, which assumed that Traffic Guides could be mobilized in time to achieve a controlled evacuation. See 21 NRC at 720, 723. The Exercise Board evaluated whether LILCO could achieve this, and found that it could not.^{49/}

Thus, contrary to LILCO's assertion that the Board "ignored the need to search for public health and safety effects" (LILCO Br. at 23), the FEMA Report, FEMA's testimony, the Staff's Findings, Suffolk County's testimony, as well as the PID and the evidentiary record from the emergency planning litigation, all establish that the untimely mobilization of LILCO's Traffic Guides would have negatively impacted the public health and safety.

Perhaps recognizing this, LILCO vigorously complains that the Board failed to consider evidence that LILCO claims would have shown that its long mobilization delays would have had no effect on the total population dose received by EPZ residents. LILCO

^{49/} Contention EX 40 itself alleged that LILCO's Plan is fundamentally flawed, given LILCO's inability to staff TCPs in a timely fashion. See LBP-88-2 at 66-70. And, the County's testimony addressed this fact. Indeed, as noted by the Board, the County provided numerous examples demonstrating why LILCO's late staffing would have negatively impacted public health and safety. LBP-88-2 at 78-80, 87.

Br. at 26. LILCO also claims that the Board ignored uncontested testimony that, had an evacuation actually taken place, the delay in manning TCPs would have added only a total of 19 minutes to the controlled evacuation time estimates contained in the LILCO Plan. Id. at 26-27.

LILCO's arguments should be rejected. It is true that the Licensing Board did request LILCO testimony on this matter. LBP-88-2 at 86, n.23; LILCO Br. at 26. But LILCO's claim that this testimony would have proved that the mobilization delays experienced under the Exercise scenario would not have increased total population doses is baseless. The Governments were prepared to prove that LILCO's proffered testimony was unreliable and did not establish that the mobilization delays would have had no effect on total population dose under the Exercise scenario. The Board, however, correctly decided that consideration of LILCO's testimony was not necessary to its Contention EX 40 finding; thus, the County was never called upon to demonstrate the suspect nature of LILCO's evidence. See LBP-88-2 at 86-87, n.23.^{50/}

Similarly, LILCO's claim that its late staffing would have added only 19 minutes to total evacuation times (LILCO Br. at 26-27) is without merit. According to LILCO, this testimony was "uncontested." Id. at 26. This is false; not only was the testimony contested, it was discredited and explicitly rejected by the Board, even at trial. See generally, Tr. 1994-2012. The Board's ruling was based on Suffolk County's testimony. See, e.g., Tr. at 2267-70; see also LBP-88-2 at 76-77, 78-80, 87.^{51/} Based on the

^{50/} Moreover, LILCO never sought admission of its testimony. The Board made clear that were it to accept LILCO's testimony, the Governments would need an opportunity to rebut LILCO's calculations. LBP-88-2 at 86, n.23. LILCO chose not to pursue the admission of its proffered testimony and never objected during trial to the Board's ruling. Thus, LILCO has no right to have this testimony now considered by the Appeal Board.

^{51/} The Board found that Suffolk's testimony about the mobilization delays was highly credible, because "it was offered by Suffolk County police officers with considerable experience" — "experts in the practical problems of the streets. . ." LBP-88-2 at 87.

evidence of record, it was reasonable to conclude that LILCO's slow staffing would have delayed evacuation more than 19 minutes.^{52/}

LILCO also claims that the Board failed to police the Contention EX 40 Testimony that was admitted, and that, as a result, testimony that replicated testimony presented and decided against the Governments during the earlier planning litigation was improperly admitted, and then considered and used by the Board. LILCO Br. at 42-43. In particular, LILCO complains about County testimony that the traffic control treatments specified in LILCO's Plan would have been difficult, if not impossible, to implement after an evacuation was ordered, that some strategies would have been virtually impossible to implement under any circumstances, and that establishing and maintaining traffic flow required special training and experience not possessed by LILCO's Traffic Guides. *Id.* at 42; see also LBP-88-2 at 78-79.

Notwithstanding LILCO's complaints, the testimony was admitted by the Board only as "necessary background to understand Suffolk's position." Tr. 1003-04. Further, the Board made it abundantly clear that the testimony was "not a necessary underpinning for [its] conclusion" regarding Contention EX 40. LBP-88-2 at 87. Thus, LILCO's claim that the testimony must have "played a role" in the Board's decision -- "the Board's finding on Contention EX 40 is predicated, in part, on an improper factual basis" (LILCO Br. at 43) -- is nothing more than sheer speculation, which is contrary to the Board's explicit representations.

D. Contention EX 50 -- Training

The Licensing Board devoted over 80 pages to detailing its findings and conclusions concerning the efficacy of LILCO's training program. LBP-88-2 at 172-253. Because it

^{52/} A fundamental flaw finding would have been necessary even if LILCO's delay would have increased total evacuation times by "only" 19 minutes. All parties agreed that LILCO's Traffic Guides were to be substantially in place within one hour following an evacuation recommendation, and this was the standard against which LILCO's performance was judged. LBP-88-2 at 84. Mobilizing only 13% of TCPs within an hour is not substantial compliance.

cannot refute the evidence that was before the Board, LILCO attacks the Board's reasoning and raises a plethora of criticisms, ranging from assertions that the Board erred in admitting Contention EX 50 in the first place, to claims that the Board considered evidence it should not have, and failed to consider other evidence it should have. None of LILCO's criticisms is valid. The extensive evidence considered and discussed by the Board, and the conclusions the Board drew from the evidence, form the most effective rebuttal to the many criticisms LILCO makes. We thus begin with a discussion of the Board's Decision.

1. The Training Decision

Even a cursory reading of the Board's findings on EX 50 leads to the conclusion that it was FEMA's evidence -- particularly as compiled in the FEMA Report -- which the Board found most persuasive. In its "Overview" on this contention, the Board notes that FEMA identified a significant number of training problems and inadequacies in the FEMA Report. LBP-88-2 at 172-73; see also FEMA Ex. 1 passim. Moreover, as noted by the Board, the FEMA witnesses agreed at the hearing that FEMA had identified a significant number of training problems, and that FEMA observed many areas in which training needs to be improved. LBP-88-2 at 173. The Board also cited the statement in FEMA's prefiled testimony that "most of the Exercise inadequacies which were identified as either 'Deficiencies' or 'ARCA's'^{53/} were attributable to breakdowns in the LILCO training program." Id. at 193, citing FEMA Ex. 5 at 73.

After presenting in its Overview the standards it used to judge the LILCO training program (LBP-88-2 at 176-79), the Board addressed the specific categories of deficient performance set out in the subparts of Contention EX 50.

Contention EX 50.A alleged that LILCO personnel had not been effectively trained to respond to unrehearsed and unanticipated situations likely to occur in an emergency. In

^{53/} That is, the two more serious categories of problems in FEMA's tri-partite grading system.

its discussion of this subpart, the Board focused mainly on LILCO's handling of the simulated traffic impediments. The Board noted its earlier conclusion, made in connection with Contention EX 41, "that LERO personnel were not adequately trained in emergency decision-making and communication." LBP-88-2 at 180. The Board then pointed out that FEMA had identified a significant number of training problems and inadequacies in the FEMA Report, leading FEMA to conclude that LILCO personnel needed additional training. *Id.* at 180, 182-83. The Board also noted that the NRC Staff had concluded that LILCO's response to the impediments supported the allegations that LILCO personnel are not sufficiently trained to deal effectively with unanticipated events that have the potential to disrupt the taking of protective actions. *Id.* at 183. Based on the foregoing, the Board concluded that:

[T]he training of LERO personnel in responding to unanticipated and unrehearsed events, in communicating information about such events, in analyzing the kind of equipment needed to respond to serious roadway accidents, and in the development of alternative actions when actions called for by the Plan do not or will not work effectively, has been inadequate.

Id.

Contention EX 50.B alleged that LILCO's training program had been ineffective in instructing LILCO personnel to follow and implement the LILCO Plan and procedures. In addition to the evidence on this subpart adduced in connection with the traffic impediments, the Board listed and discussed more than 20 other examples of LILCO personnel failing to follow their procedures or evidencing a lack of basic knowledge of the Plan. Most of these examples were culled from the FEMA Report. LBP-88-2 at 185-89.^{54/} Before stating its conclusion on EX 50.B, the Board noted that:

^{54/} LILCO did not, in the main, dispute the numerous problems cited by FEMA in its Report. Rather, LILCO took the position that the large number of errors made by its personnel failed to reflect a pervasive training problem, when viewed in the context of the large number of LILCO workers mobilized during the Exercise. LBP-88-2 at 192. The Board, however, rejected this argument, reasoning correctly that there was no basis to conclude that LILCO's unobserved participants had performed any better than those observed. *See id.* at 194 and n.50.

The NRC Staff, in its proposed findings, noted that enough workers made errors to indicate a pattern related to deficiencies in training. Staff suggested that until the ability to maintain emergency response skills has been demonstrated, it retained serious doubts about the adequacy of the LILCO training program.

Id. at 193-94. Thus, relying on the evidence set out in the FEMA Report, as illuminated by testimony at the hearing, and buttressed by the Staff's similar interpretation of the same evidence, the Board concluded:

[T]he proportion of LERO workers observed failing to follow the Plan or procedures was disturbingly great. These failures occurred frequently enough to suggest that there is, indeed, a pervasive problem in training LERO workers to follow the Plan. We conclude, therefore, that the allegation made in Subcontention EX-50B is valid; LILCO's training program has not adequately trained LERO personnel to follow the LILCO Plan and procedures.

Id. at 194 (footnote omitted).

Contention EX 50.C alleged that LILCO's training program had failed to teach LILCO personnel to communicate necessary and sufficient data and information, to inquire and obtain such information, or to recognize the need to do so. In discussing this subpart, the Board once again detailed the evidence relied upon in support of the factual allegations in the contention. In addition to the "glaring example" afforded by LILCO's response to impediments, the Board listed 10 other examples from the Exercise which the Governments alleged demonstrated communications problems.^{55/} LBP-88-2 at 195-98, 206-11. The Board discussed the problems revealed in LILCO's post-Exercise drill reports, noting that the exact same sorts of problems which plagued LILCO's communications efforts during the Exercise continued to recur during later training drills. See id. at 198-205, 215-16. Contrary to LILCO's claim, however (see, e.g., LILCO Br. at 46-49), the Board's fundamental flaw finding was independent of (although certainly confirmed by) the results of the post-Exercise drills:

^{55/} The Board rejected other examples used in the Governments' testimony, stating that its "reading of the [FEMA] Report indicates that those were more in the nature of equipment problems." LBP-88-2 at 197, n.51.

The conclusion that must be drawn is that the training program as conducted before and since the Exercise has failed to teach LERO personnel how to communicate emergency information effectively.

Because the consequences of poor communication during the Exercise resulted in a finding of a Deficiency by FEMA and a Fundamental Flaw by us, and because we agree with Suffolk's witnesses that timely and accurate communications provide the backbone of a successful emergency response, we conclude that LILCO's training program is fundamentally flawed in the area of communications.

LBP-88-2 at 216-17 (emphasis added).

Contention EX 50.E alleged that LILCO's training program had not successfully or effectively trained LILCO personnel to exercise independent or good judgment, or to use common sense, in dealing with situations encountered during an emergency or in implementing the LILCO Plan and procedures. In addition to the numerous instances of poor judgment displayed by LILCO workers in dealing with the traffic impediments, the Board set forth 11 other examples of poor judgment drawn from incidents during the Exercise. LBP-88-2 at 220-22. The Board referenced, but was obviously not convinced by, LILCO's assertion that its workers need not be trained to exercise good, independent judgment:

We conclude that the weight of the evidence supports Suffolk's contention that LERO workers are not adequately trained to use independent and good judgment in response to unanticipated events. LILCO itself admits that its training program is intended to teach LERO workers to implement the Plan and not to make ad hoc decisions during an emergency. We are convinced, however, that situations would arise during a radiological emergency at SNPS that could be dealt with effectively only if the emergency workers are able to make good, independent judgments and ad hoc decisions.

Id. at 224.

Contention EX 50.F alleged that LILCO's training program has not successfully or effectively trained LILCO personnel to deal with the media, or otherwise to provide timely, consistent, and nonconflicting information to the media. Once again, the Board carefully reviewed the evidence and the arguments of the parties. See, e.g., id. at 225-33. The Board concluded that "[t]he delays and inaccuracies in communicating information

about exercise events to the media is undoubtedly another reflection of the inadequate training LERO personnel have received in communication skills." Id. at 233 (emphasis added).

Contention EX 50.G alleged that LILCO had failed to train the non-LILCO persons and organizations relied upon to implement the LILCO Plan (e.g., school bus drivers, ambulance drivers). The Board detailed FEMA's findings concerning the lack of dosimetry training for bus and ambulance drivers, and the Staff's acknowledgment that this could be a "problem." LBP-88-2 at 235-36. It ruled that any determination as to whether LILCO's post-Exercise training efforts had resolved these problems had to await a future exercise. Id. at 236-37.

Contention EX 50.I alleged that the modifications made by LILCO to its training program to correct the problems identified by the Exercise will be unsuccessful. In deciding this contention subpart, the Board relied heavily on the analysis of the evidence (particularly the evidence of LILCO's performance during drills held after the Exercise) contained in the Staff Findings. See LBP-88-2 at 246-49; see Staff Findings at 181-86. The Board's conclusion was as follows:

We agree with the NRC Staff. The evidence before us in this proceeding . . . generates substantial doubt that LERO personnel have been adequately trained in the areas of communication, responding to unanticipated events, and timely dispatch of and prompt performance of duties by emergency field workers, especially Traffic Guides and Bus Drivers . . . LILCO's training program, therefore, is fundamentally flawed in teaching emergency communication and the timely dispatch and response of personnel.

Id. at 249-50.^{56/}

^{56/} The above summarizes the Board's analysis of those parts of Contention EX 50 on which the Board's findings were more or less consistent with the position advocated by the Governments. The Governments point out (because LILCO has not done so) that the Board found at least one subpart of Contention EX 50 unsupported, for a reason LILCO argues in its brief the Board failed to consider. Thus, the Board concluded on Contention EX 50.H that the lack of adequate knowledge of personal radiation protection demonstrated by LILCO workers was not a fundamental flaw, as it would not likely affect the public health and safety. LBP-88-2, at 243. See also id. at 217-19 (insufficient evidence to support the allegation that LILCO's training program failed to teach LILCO workers to follow the directions of their superiors).

Following its discussion of each Contention EX 50 subpart, the Board summarized its overall conclusion on the contention, listing three areas in which deficiencies were found during the Exercise and had not been corrected after it. LBP-88-2 at 250. The Board concluded that these deficiencies in LILCO's training program precluded a reasonable assurance finding. Id. at 251.

In its appeal, LILCO makes little attempt to confront either the evidence relied upon by the Board, or the conclusions the Board drew from this evidence. Nor could LILCO do so. The Board had before it solid evidence of numerous and significant errors made by LILCO personnel during the Exercise, in the form of the findings contained in the FEMA Report and the confirmatory testimony of the FEMA witnesses. It was not the Governments' witnesses alone who inferred from the evidence that there was something seriously awry with LILCO's training program. The NRC Staff drew essentially the same conclusion (see Staff Findings at 185-186), as did the FEMA witnesses. See Tr. 8283, 8284-85, 8297-98.^{57/}

2. LILCO's Criticisms of the Licensing Board

LILCO alleges seven basic errors in the Board's Contention EX 50 findings. First, LILCO claims that the Board, in derogation of the OL-3 Board, CLI-86-11 and concepts of res judicata, conferred upon itself "unfettered jurisdiction" to review the adequacy of LILCO's training program. LILCO Br. at 10, 45-46, 49-50. Second, the Board erred in admitting Contention EX 50, because even if the allegations in it were true, they would not establish a "sufficient" pattern for finding a fundamental flaw. Id. at vii, 3, 21-22. Third, the Board erred because it applied a different standard in evaluating LILCO's training program than the Shearon Harris Licensing Board allegedly did in ruling on the communications contentions in that proceeding. Id. at 36-38. Fourth, the Board

^{57/} The Board's findings on Contention EX 50 must also be viewed in light of two other facts: first, at the time of the Exercise, LILCO's training program had been in place for three years (Tr. 5423); second, during the two months prior to the Exercise, LILCO held at least three full-scale dress rehearsals. LBP-88-2 at 176.

improperly considered evidence submitted by the Governments concerning LILCO's organizational structure and the lack of "realism" in its training program, and that the Board's impermissible consideration of this evidence led to the incorrect conclusion that LERO workers were amateurs, and to the improper holding of LERO to a "police standard" in its emergency response. *Id.* at 44-46. Fifth, the Board improperly based its finding of a fundamental flaw in the LILCO training program on the post-Exercise drills, after having "misled" LILCO into believing that the evidence concerning the drills would not be used. *Id.* at vii, 46-49, 62-63. Sixth, the Board's decision is not supported by substantial evidence, because the Board erred in "ignoring" or in according "no weight" to testimony concerning how LILCO's performance compared with performance by other organizations at other exercises; moreover, instead of looking for a pattern of failures, the Board "focused on the poor performance of a single individual [*i.e.*, the Evacuation Route Coordinator] on the day of the Exercise, and determined that that performance reveal[ed] a fundamental flaw in the entire training program" *Id.* at 63. Finally, LILCO alleges that the Board failed to articulate its rationale with sufficient clarity and precision. *Id.* at 66-68.

None of these points or complaints is well taken. Most have as their starting premise LILCO's mischaracterization of the record and of the Decision.

a. The Licensing Board Did Not Exceed Its
Jurisdiction When It Assessed the Adequacy
of LILCO's Training Program

The Licensing Board which heard the prior planning litigation concluded that LILCO's training program, viewed in the abstract, "meets the regulatory standards." PID, 21 NRC at 756. That Board added, however, that:

This conclusion is made subject to confirmation by a finding, to be made by FEMA after a graded exercise, that the Plan can be satisfactorily implemented with the training program submitted and that LILCO possesses an adequate number of trained LERO workers.

Id. FEMA made no bottomline finding concerning the Shoreham Exercise. It was also FEMA's testimony that FEMA does not make separate findings as to the adequacy of training programs. Tr. 8297. Thus, the only finding the OL-3 Board could have intended is the usual FEMA finding as to whether an exercise has demonstrated that an adequate paper plan can be implemented. Clearly, the OL-3 Board was making the (not unreasonable) assumption that if a training program has not trained personnel in what is required under a plan, the personnel will not be capable of implementing the plan. In other words, the proof of the training program is in the Exercise performance.

LILCO has seized on the language of what it characterizes as the "Frye dissent"^{58/} to conclude that the evidence of "inadequate" training that the Board found in the context of Contention EX 50 was somehow different in quality and magnitude from a "fundamental flaw." LILCO Br. at 39. There is no basis for this conclusion, however.

The jurisdiction granted to the Board was to determine if the Exercise revealed any deficiencies which preclude a reasonable assurance finding, *i.e.*, fundamental flaws in the Plan. 23 NRC at 581. There can be no flaw more fundamental -- none more likely to preclude reasonable assurance -- than for there to be a training program in place which has failed, or is unable, to impart the ability to follow a plan and procedures, or the ability to exercise good judgment and common sense, or the ability to communicate planned response actions to the public and the media. In admitting Contention EX 50, the Licensing Board recognized this:

Our initial decision on emergency planning acknowledged that the exercise was to be the vehicle that would confirm the adequacy of LILCO's training program. Indeed, we were repeatedly told by FEMA witness during the planning hearing that FEMA followed a two-stage review process in which the adequacy of the written plan was first reviewed and that adequacy of training would be reviewed later as revealed by personnel performance in an exercise. We are now at

^{58/} Judge Frye disagreed with some conclusions reached by the majority in conjunction with Contention EX 41 and with some of the conclusions on the subparts of EX 50. LBP-88-2 at 257-58. He fully endorsed the majority's overall conclusion on Contention EX 50, however, stating that he viewed this conclusion as "the definitive statement of the ways in which the training program is fundamentally flawed." Id. at 258.

that second stage where adequacy of training as revealed by the exercise is ripe for litigation. There can be little question that the plan would be fundamentally flawed if it were proven that a large training program having ample opportunity to train has failed in its mission.

Oct. 3 Order at 30 (emphasis added).

The Board reviewed training, "as revealed by personnel performance in [the] [E]xercise," and, based on that review, concluded that LILCO's training was fundamentally flawed. The majority did not, Judge Frye and LILCO notwithstanding (see LBP-88-2 at 257-58; LILCO Br. at 39), engage in some far ranging inquiry as to "whether the LILCO training program meets each aspect of the regulatory standard." LBP-88-2 at 257. The OL-3 Board had already determined that, on paper, it did. The Exercise Board's sole inquiry was whether the training program had, in fact, trained. The Board found, based on the extensive evidence of performance errors at the Exercise, that it had not. The Board thus had no choice but to conclude that LILCO's training program did not meet the key regulatory standard: provision of reasonable assurance that LILCO's Plan can and will be implemented.

The Board did not, as LILCO asserts, impermissibly "put itself in the role traditionally reserved to FEMA and the NRC Staff as evaluators of exercise performance, all without benefit of FEMA's and the Staff's experience and without having attended the exercise." LILCO Br. at 10. Rather, the Board simply filled the mandate of CLI-86-11 and considered the results of the Exercise, to determine if they revealed any fundamental flaws in the Plan.

b. The Board Properly Admitted Contention EX 50

With rhetoric reminiscent of its initial objection to the admission of Contention EX 50,^{59/} LILCO maintains that the Board erred in admitting the contention because "no pattern was alleged to establish, if true, a potential effect on the public health and safety

^{59/} LILCO asserted that Contention EX 50's "dragnet approach smacks of a conspiracy charge" and charged that the contention's subparts attempted "to transmute triviality into substance by spurious organization." LILCO Objections at 55.

and therefore a fundamental flaw in the LERO training program." LILCO Br. at 22. LILCO is wrong.

Contention EX 50 makes one central allegation: that the Exercise demonstrated that LILCO is incapable of training emergency workers, and as a result there can be no reasonable assurance that adequate protective measures can and will be taken in the event of an emergency. The subparts of the contention then list specific areas, supported by specific examples, of how the profusion of errors committed by LILCO personnel during the Exercise demonstrate that there has been a training failure. LILCO alone is incapable of perceiving the pattern here, persisting in characterizing the numerous problems exhibited by its personnel in performing their emergency response tasks as isolated incidents. See LILCO Br. at 60-61, 63.

FEMA testified that most of the exercise inadequacies which were identified and evaluated as either Deficiencies or Areas Requiring Corrective Action, were attributable to breakdowns in the LILCO training program. FEMA Ex. 5 at 73. The Staff ultimately concluded (despite its initial objection to the admission of EX 50, which LILCO makes so much of in its brief (see LILCO Br. at 21)) that:

Although some errors, such as the erroneous announcements to LERO workers, seem to be isolated or inadvertant mistakes, others were made by enough workers to indicate a pattern related to deficiencies in training. [These errors] suggest that the LERO training program was not equal to the task, at least on the day of the Exercise.

Staff Findings at 176. Thus, the pervasiveness of LILCO's training problems was apparent to the Staff, FEMA, the Governments, and the Board. Only LILCO fails to perceive it.

Moreover, LILCO's claim that a training program which has not been successful in training emergency workers in even the basics of the Plan they will be called upon to implement would not have a "potential effect on the public health and safety" is absurd. It is tantamount to saying that planning for radiological emergencies is an unnecessary exercise in futility.

In short, the Board acted properly, in compliance with the mandate given it by CLI-86-11, and pursuant to the confirmatory information sought by the OL-3 Board, in admitting Contention EX 50. The Board's stated rationale for admitting the contention was correct: "There can be little question that the plan would be fundamentally flawed if it were proven that a large training program having ample opportunity to train has failed in its mission." Oct. 3 Order at 30.

c. Shearon Harris Provides No Analogy

LILCO attempts to fault the Board's finding of a fundamental flaw in the training program by purporting to compare its conclusion on Contention EX 50 with the handling by the Shearon Harris Licensing Board of contentions in that case dealing with communications.^{60/} LILCO Br. at 37-38. There is no analogy, however.

The contentions rejected by the Board in Shearon Harris did not allege that that exercise had revealed fundamental flaws in the emergency plan; nor did they allege that exercise events precluded the required Section 50.47 (a)(1) reasonable assurance finding. 23 NRC at 398, 403. Had they done so, the intervenors still would have had to overcome FEMA's Shearon Harris determination that that exercise was satisfactory and that the errors were all correctable. 23 NRC at 406.

Further, there is no reason for the Appeal Board to speculate about what may or may not have happened to Contention EX 50 on summary disposition, had LILCO sought

^{60/} Carolina Power & Light Co. (Shearon Harris Nuclear Power Plant), LBP-86-11, 23 NRC 294 at 398, 403 (1986). It should be noted that LILCO's conclusory assertions concerning the "focus" of Contention EX 50, which forms the introduction to its discussion of Shearon Harris, trivialize the contention and the evidence adduced in connection with it. See LILCO Br. at 36. For example, whether or not the LILCO Plan has excess bus capacity is irrelevant. Of the eight bus drivers FEMA did evaluate, major flaws were identified in the training of three. Tr. 4548-51. As the Board observed, "[i]f the eight observed by FEMA were a truly representative sample . . . then one might expect 37 percent of 333 bus drivers, or approximately 125, to fail to carry out their function properly." LBP-88-2 at 194, n.50. And, of course, those observed may have performed better than the norm.

it.^{61/} What happened in a different proceeding, with different parties, different evidence, and in a different procedural context is irrelevant to the factual determinations made by the Licensing Board in this case.

d. The Board Did Not Improperly Consider Evidence on Matters Previously Adjudicated

LILCO claims that the Board improperly considered evidence concerning the lack of realism in LILCO's training program and the nature of LERO's organizational structure — two matters LILCO maintains had already been adjudicated and decided in LILCO's favor. See LILCO Br. at 45-46.

The short answer to these criticisms is the one made by Judge Shon — himself a member of the Licensing Board which heard the prior planning litigation — when LILCO raised its res judicata argument at the hearing:

The earlier Board did decide that certain things might be possible. That a plan was a good plan, or a workable plan.

However, the Commission had directed us specifically to look at the plan and see whether, in fact, the exercise shows that it works. And I would not — I think I expressed a very similar opinion a day or two ago, I would not feel us bound by a decision of the previous Board as to the workability as demonstrated by the exercise.

Tr. 1265; see also Tr. 511-12. The judicial concept of res judicata as LILCO has attempted to apply it has no place in this proceeding. If the results of the Exercise demonstrated that some part of the Plan approved by the earlier Board without the benefit of evidence on implementability is, in reality, unworkable, the abstract approval of the plan previously given must be qualified or withdrawn.

^{61/} LILCO implies that the Shoreham Exercise Board refused to permit it to make use of the summary disposition option in the regulations. LILCO Br. at 36, n.28. This accusation is baseless. Had LILCO believed it could have prevailed on summary disposition, it doubtless would have sought it. Certainly, the Board did nothing to prohibit LILCO from seeking summary disposition.

I. The "Realism" Testimony

The County's witnesses, based on their expertise in training, in organizational behavior, and in emergency response, concluded that the poor performance of LILCO personnel during the Exercise resulted from poor training. LILCO's training program was criticized, in part because it failed to give LILCO personnel sufficient training in "learning by doing." Contrary to LILCO's assertions, the County's witnesses did not testify that the ability to respond to emergencies can only be developed by responding to them. Rather, the thrust of their testimony was that, although real experience is the best teacher, a good program, involving realistic attempts to simulate an emergency, can be effective and, for that reason, is essential. Performance errors in the Exercise which would have been revealed earlier, and mitigated, if LILCO had had realistic learning by doing training were described. Further, the witnesses pointed out that after the Exercise, the LILCO training continued to be unrealistic; instead of creating new and unanticipated situations to develop response skills, the subsequent drills simply repeated the precise types of situations involved in the Exercise scenario. See, e.g., SC Ex. 95 ("SC EX 50 Testimony") at 15, 28, 53-54, 78-80, 82-87, 89, 92-95, and 99.

LILCO moved to strike this testimony on the ground that the "realism" of LILCO's training program had already been litigated.^{62/} The Board, however, properly declined to strike the testimony. The Board's ruling recognized that the OL-3 Board had merely found there to be no support for the assertion that LILCO's drills and exercises were defective, because they lacked realism. See PID, 21 NRC at 753. Further, in the planning Board's opinion, it was not established that LERO jobs were so complex that they required training or experience beyond that called for in the Plan. Id. at 750. These observations were followed by the OL-3 Board's overall conclusion on training, however: any final seal of approval had to await the proof afforded by performance in an exercise. Id. at 736.

^{62/} See LILCO's Motion to Strike Portions of Suffolk County's Testimony on Contention EX 50 - Training of Offsite Emergency Personnel, April 22, 1987, at 23-25.

Of course, in the abstract posture of the prior planning litigation, there was no evidence that the lack of realism in LILCO's training program impacted negatively on LILCO's ability to respond to an emergency. The Exercise (just as the OL-3 Board assumed it would) provided the test of LILCO's training program. Based on that test, only one conclusion was possible: LILCO's training program failed, and the County's experts were entitled to give their opinion concerning one of the reasons for that failure.

ii. The Organizational Structure Testimony

LILCO also complains that "even though the Board agreed to strike testimony on the organizational structure of LERO, the concepts advocated by that testimony were scattered throughout the Board's decision." LILCO Br. at 46.

First, LILCO mischaracterizes the Board's ruling on the objected-to testimony. The Board ruled that the testimony was admissible "to the extent that it raises matters revealed by the exercise which bear on the efficacy of the training program." Tr. 4332-33. The thrust of the testimony LILCO complains about was that the Exercise clearly demonstrated that LERO's highly centralized structure is inappropriate for responding to emergency events and that, as a result, an innovative and highly effective training program was needed. The testimony suggested that LILCO was asking too much to expect its part-time emergency workers, involved at most in a few drills a year, to perform well in an actual emergency.

Further, the testimony LILCO sought to strike demonstrated how Exercise events challenged the structure of LERO and revealed its limitations, limitations which had not been compensated for by the LILCO training program. Certain Exercise events (particularly the free-play messages and the simulated interaction with the media and the public at the ENC) were the first "non-routine" events ever faced by the LERO organization. Thus, if the Board did consider this testimony in reaching its conclusions, such consideration was perfectly proper. The purpose of the Exercise was to determine whether the structure approved in the planning litigation worked, given the training

LILCO personnel had received; as revealed by the Exercise, it did not. The County's testimony was perfectly admissible.

To the extent the testimony LILCO objected to contained information which was not, in a literal sense, "revealed" by the Exercise (e.g., the description of LILCO's centralized decisionmaking structure), this information was taken directly from the LILCO Plan, which was in evidence in any event. Its inclusion in the County's testimony was not error, and would be harmless in any event.

In short, it is difficult to see what LILCO is hoping to accomplish by arguing that the testimony on "realism" and LERO's "organizational structure" should not have been considered by the Board. Whether LILCO's training program is fundamentally flawed because its drills lack realism or for some other reason, and whether LILCO's organizational structure led to its fundamentally flawed performance in communicating emergency information within LERO and to the public, would not alter the conclusions drawn by the Board on these issues.

iii. **The Board's Conclusion That LERO
Workers Are Amateurs Was Not Based
on the "Realism" Testimony**

LILCO contests the Board's characterization of the members of LERO as "amateurs," asserting that LERO is made up of "professional utility workers" and that LILCO field workers face emergency, life-threatening situations in their day-to-day lives. LILCO Br. at 45, n.34. The Board did not impugn the credentials of LERO members as "professional utility workers." It simply pointed out that "[a]s emergency workers, LILCO personnel are amateurs" LBP-88-2 at 63. This conclusion was consistent with the admission by a LILCO witness, who agreed that LILCO personnel in LERO do not typically perform the kinds of emergency responsibilities they have in LERO during their normal jobs. See, e.g., Tr. 5136-37.

Moreover, if LILCO had evidence that LERO is composed solely, or even in large part, of those LILCO field workers who allegedly face "life-threatening situations" daily,

and that the skills they have developed in these situations are transferable to implementing LILCO's Plan, LILCO was free to present it. Since LILCO did not do so, it cannot complain that the Board drew from the evidence regarding LERO's inadequate response the logical inference that LERO personnel were inexperienced at performing the tasks they were faced with in the Exercise.

Similarly, LILCO's complaint that the Board held LERO workers to a "police standard" is without basis. Suffolk County's witnesses on EX 50, many of whom were or are in law enforcement, offered examples of what they considered to be effective, appropriate and adequate training, as a way of comparing such training to the training given LERO workers. Given the witnesses' backgrounds, it is not surprising that many of these examples described police or FBI training techniques. This testimony was not, however, offered to dictate how LILCO should run its training program. See Tr. 4223. Nor did the Board mandate that LILCO employ these techniques. It merely suggested that LILCO try something like them, since the Exercise had clearly demonstrated that what LILCO has been doing does not work. LBP-88-2 at 217, 233.

e. The Post-Exercise Drills

Following the Exercise, LILCO made changes in its Plan to attempt to address the criticisms made by FEMA. See SC Ex. 96, Att. 10. It was LILCO's position that these changes remedied the problems found by FEMA and supported LILCO's quest for a license.^{63/} The Governments' contentions disputed that LILCO's "fixes" had adequately addressed the problems revealed by the Exercise. See, e.g., Contentions EX 38.Q, 40.E, 41.E, 47, and 50.I.

^{63/} As counsel for LILCO stated during his opening remarks to the Board:

LILCO believes that the exercise and the remedial measures it has taken . . . demonstrate adequate readiness for full power operation.

Tr. 264-65 (emphasis added).

During discovery, although LILCO strenuously objected to producing any evidence concerning pre-Exercise training and drills, it never objected to producing, or questioned the relevance of, materials and information pertaining to post-Exercise training.^{64/} Among the post-Exercise materials produced by LILCO were documents relating to drills held on June 6, September 10, September 17, October 1, December 2, and December 10, 1986. Reports summarizing the results of these drills and prepared by LILCO consultants were filed as attachments to Suffolk County's direct testimony on Contention EX 50.^{65/} LILCO also produced the drill observer forms prepared during the drills, which formed the underlying data base for the drill reports.

Both LILCO and Suffolk County discussed the evidence from the post-Exercise drills in their prefiled testimony on numerous contentions. The gist of Suffolk County's testimony was that the drills unequivocally demonstrated that LILCO's post-Exercise fixes had not worked to correct the problems that arose during the Exercise. LILCO, of course, claimed otherwise.

Contrary to LILCO's representations (LILCO Br. at 47, n.35), the County first began to cross-examine LILCO witnesses concerning the drills during the trial of Contention EX 41. Counsel for LILCO objected. Following a sidebar conference, Judge Frye stated that admission of the post-Exercise drill reports would be postponed until the trial of Contention EX 50, because LILCO had represented that it would then make

^{64/} For example, LILCO stated:

Included in the documents which are responsive to this request are individual training files for each of the 2,500 LERO players; these files fill eight four-drawer file cabinets. Within these files only the post-Exercise training review exercises are relevant.

LILCO's Supplemental Responses and Objections to Suffolk County's First Set of Interrogatories and Request for Production of Documents, Nov. 10, 1986, at 6 (emphasis added).

^{65/} See SC Ex. 96, Att. 7 (report of June 6, 1986 drill), Att. 8 (consolidated report of September 10, September 17, and October 1, 1986 drills), and Att. 9 (consolidated report for December 2 and December 10, 1986 drills).

available witnesses who were familiar with the drill reports. Tr. 879-886; see also Tr. 953-962.

In connection with the next issue litigated, Contention EX 34, counsel for Suffolk County cross-examined LILCO's witnesses on pertinent portions of the December drill reports. Rather than objecting on relevancy grounds, counsel for LILCO simply suggested that the drills be discussed in connection with Contention EX 50. Tr. 1452-53. Further, when counsel for Suffolk County moved the relevant portions of the drill report into evidence, counsel for LILCO only objected to the admission of portions of the report -- those pages not cross-examined on. Tr. 1470.

The post-Exercise drills came up again in connection with the litigation of LILCO's fixes made to address the problems revealed by the Exercise in mobilizing Traffic Guides. Tr. 2117-33. Counsel for LILCO made clear LILCO's understanding that these drills were relevant to the efficacy of LILCO's fixes, and agreed that the Board should consider them. The Board concurred. Tr. 2125-26.

LILCO now alleges that, in contradiction to the Commission's mandate in CLI-86-11, the Board used the post-Exercise training reports as bases for the fundamental flaws it found (LILCO Br. at 46), that the Board led the parties to believe it would not make use of the drill reports (id. at 48), and that "[i]f the Board was concerned that exercise events revealed a fundamental flaw in the LILCO Plan, it should, with adequate notice to the parties, have examined the post-exercise materials only to see if the flaw had been easily remedied" (id.). These allegations are without merit.

First, as the chronology above makes clear, the Board at no time indicated that it would not make use of the post-Exercise drill report data. All parties were on "adequate notice" that the Board would use the post-Exercise data in assessing whether LILCO's "fixes" had worked; indeed, those data formed the only evidence on this contested issue. LILCO's belated attempt to feign surprise should be ignored.

Second, the Board did not rely on the post-Exercise drills in making any of its fundamental flaw determinations. LILCO is correct that, at the outset of its discussion of Contention EX 50, the Board stated that it would "analyze the results of the Exercise and additionally determine whether problems found during the Exercise have recurred during post-Exercise drills." LILCO Br. at 46, quoting LBP-88-2 at 179. The Board had no other way of resolving the issues raised by Contention EX 50.I. Each finding of fundamental flaw made by the Board, however, was specifically based on Exercise results; the Board used the post-Exercise drill reports only to make the point that the exact same types of problems continued to recur -- despite Plan changes, and despite additional training and drilling.^{66/}

Third, the Governments submit that although the Board did not use the post-Exercise drill evidence as a basis for any of its assignments of "fundamental flaw," it certainly could have done so had it wanted. For the most part, LILCO did not object to the admission of such evidence, and the objection it did make was not preserved for appeal.^{67/}

Further, it must be recognized that LILCO's performance during post-Exercise drills would have been highly probative of the issues raised in EX 50. LILCO's own witnesses testified that the concepts and basics of the training program remained unchanged following the Exercise. Tr. 4375, 5687, 5710, 5711-12, 5729-30. Thus, the drill performance of LILCO's personnel provided a way to check the training program's adequacy.

^{66/} LILCO essentially concedes this, by not providing a single example of the Board using the post-Exercise evidence as a basis for a finding of fundamental flaw.

^{67/} After LILCO's counsel made the remarks quoted in LILCO's brief (see LILCO Br. at 47, n.35), there was additional discussion; at its conclusion, Judge Frye pointed out that he "wanted to get some better feel for what [LILCO's] position was" so that he could "have a little bit of background when and if the objection arises." Tr. at 5671-72 (emphasis added). It never did.

Perhaps the best reason for the Licensing Board to have considered the post-Exercise drills would have been to put the final quietus on LILCO's constant averments that the problems during the Exercise were isolated, individual performance problems occurring that day, ad hoc, and easily correctable. If these problems were so easy to correct, it is surprising that they persisted throughout the year following the Exercise. Similarly, if they were truly individual performance problems, it is surprising that different individuals continued to have the same so-called individual performance problems.

In short, the Board did not base its fundamental flaw findings on the post-Exercise drills, but it could have and, in the view of the Governments, in some respects, it should have.^{68/}

f. The Board's Conclusion Is Amply Supported by Evidence in the Record

Rather than addressing the extensive evidence the Board analyzed and relied upon in deciding Contention EX 50, LILCO claims that the Board's conclusion that LILCO's training program is fundamentally flawed is erroneous because: first, the Board inaccurately characterized LERO as an amateur organization, and relied on this "inaccurate insinuation" to support its conclusions that fundamental flaws existed in the LILCO Plan; second, the Board declined to consider evidence comparing the Shoreham Exercise to other exercises; and, third, the Board focused on the poor performance of a

^{68/} LILCO claims that the Governments attempted to enter selective parts of the drill reports into the record. LILCO Br. at 48, n.36. This is untrue; the Governments attached full copies of each report to its prefiled testimony. SC Ex. 96, Att. 10. The Governments did enter only portions of the observer forms underlying the reports simply because submission of all these data (as LILCO proved by submitting the balance of it) would only have burdened the record with no countervailing benefits. The Board did not cite to a single observer form in its Decision. Rather, it relied on LILCO's summaries of the data.

LILCO also accuses the Board of failing to make a "searching review of the available post-exercise material." Id. LILCO has no basis for this assertion; moreover, LILCO has completely omitted to mention a single piece of pertinent information a "searching review" would have revealed.

single individual and determined that that performance revealed a fundamental flaw in LILCO's entire training program, thus erroneously holding LILCO's training program to a standard of perfect performance. LILCO Br. at 61-63. None of these assertions is accurate.

LILCO has not pointed to a single instance in which the Board reached a conclusion that there was a fundamental flaw in the LILCO Plan because of LERO's amateur nature. The Board did express its opinion that the lack of LERO workers' experience perhaps explained their poor performance during the Exercise. Nevertheless, the problem found with LILCO's training program was that it had failed to address this inexperience effectively. The Board's opinion that it is possible that LILCO may never be able to overcome the problems exhibited during the Exercise is, moreover, supported by the clear evidence that despite three years of effort, LILCO had been unable to achieve an acceptable emergency response performance from its workers.

LILCO's complaint that the Board focused on the poor performance of a single individual is not worth discussing further. The Decision itself, in detailing the numerous errors made by LERO workers throughout the LERO organization, belies LILCO's assertion. LBP-88-2 at 173-252; see also Section III.A. above. Further, the Board specifically rejected the notion that it interpreted Contention EX 50 as seeking a demonstration of perfect performance. Tr. 4543-44.

Finally, the Board had ample reason for according no weight to LILCO testimony concerning other exercises. It was and is irrelevant to the issue of whether there is reasonable assurance that the LILCO Plan can or will be implemented.^{69/}

^{69/} Because the Board ruled that information concerning other exercises would not form a basis for any of its findings (Tr. 5248-49, 5356-59), the Governments were foreclosed from demonstrating the numerous errors in LILCO comparisons of its performance with performance at other exercises. As the Board noted, however, the County sharply contested the methodology of and conclusions drawn in LILCO's analyses. Tr. 5358. Thus, if the Appeal Board were to rule that LILCO's data should have been considered, the County's evidence showing the specious nature of those data would have to be considered as well.

Nonetheless, it must be noted that LILCO mischaracterizes the testimony that was proffered by FEMA's witness, Mr. Kowieski. LILCO Br. at 62. Mr. Kowieski said not a word about how LERO's performance compared to exercise performances by full-time emergency organizations. All he said was that LILCO's demonstration was about as good or better than other first-time exercises in the State of New York. Tr. 8534. LILCO did not ask, nor did the FEMA witnesses specify, what kind of performance had been achieved at these other first exercises.

Moreover, when the questions became more specific, Mr. Kowieski's position changed. For example, when asked about training problems at the Shoreham Exercise, compared to other exercises, Mr. Kowieski opined that only LILCO's dosimetry problems were typical. Tr. 8535-36. Further, it was Mr. Keller's opinion that LILCO's response to the simulated traffic impediments was the worst he had ever seen. Tr. 8234.

g. The Board's Rationale Is Clearly and Precisely Articulated _____

Finally, LILCO purports to be mystified by the Board's conclusions on Contention EX 50, complaining that "it is difficult to determine which training contentions LILCO won or lost." LILCO Br. at 66, n.43. The answer to this is simple: LILCO lost the training contention. The Board found, based on the results of the Exercise, that LILCO had inadequately trained its workers in numerous areas -- those identified in the subparts of the contention -- essential to an adequate emergency response. As the Decision itself reveals, the so-called "discrete activities" which the Board determined were poorly demonstrated at the Exercise implicate virtually every component of the LERO organization, and the job functions within it.

Contrary to LILCO's assertions,^{70/} the Board's Decision reveals that the evidence on each subpart was carefully analyzed, with the Board clearly indicating which party's analysis it accepted. The Board had no duty to discuss every shred of evidence, submitted by each of the parties, for relevancy, accuracy and persuasiveness. The Board highlighted and discussed the evidence it relied on for each conclusion. It is clear that LILCO disagrees with many of these conclusions. LILCO has failed, however, to point out a single piece of evidence the Board failed to consider -- or interpreted incorrectly -- which would have made a difference to the Board's decision. FEMA, the NRC Staff, and the Board all determined, ultimately, that there was sufficient evidence that the LILCO training program had "failed in its mission." There is no reason for this Appeal Board to disagree with that conclusion.

IV. Conclusion

For the reasons above, and those detailed in the Decision itself, the Decision of the Licensing Board on Contentions EX 38, 39, 40, 41, and 50 should be affirmed.

Respectfully submitted,

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^{70/} For example, LILCO claims the Board gave no indication of which examples it relied on in deciding EX 50.B, and made no effort to point out whether the examples were relevant to training. LILCO Br. at 67. In fact, when and if the Board found an example irrelevant to the issue at hand, it said so and declined to consider it. See LBP-88-2 at 197, n.51.

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USNRC

UNITED STATES OF AMERICA
NUCLEAR REGULATORY COMMISSION

'88 APR 20 P6:41

Before the Atomic Safety and Licensing Board

OFFICE OF SECRETARY
DOCKETING & SERVICE
BRANCH

In the Matter of)

LONG ISLAND LIGHTING COMPANY)

(Shoreham Nuclear Power Station,
Unit 1))

Docket No. 50-322-OL-5
(EP Exercise)

CERTIFICATE OF SERVICE

I hereby certify that copies of GOVERNMENTS' BRIEF IN OPPOSITION TO LILCO
APPEAL OF LBP-88-2 have been served on the following this 18th day of April, 1988 by
U.S. mail, first class.

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April 10, 1952

ATTACHMENTS

1. Excerpts From FEMA Testimony During 1983-84
Emergency Plan Litigation
2. Excerpts From Exercise Litigation Transcript
3. Post-Exercise Drill Reports

1 to satisfy FEMA and the criteria of 0654?

2 A That there is a system and a backup system, yes.

3 A (Witness Kowieski) If I may, there is a
4 system, backup systems, and also there are procedures
5 that describe how the system will be used. The actual
6 implementation, if the system is going to work or not,
7 will be verified during the exercise.

8 (Witnesses conferring.)

9 Q Gentlemen, let me ask you, with respect to
10 your expertise regarding communications issues, we have
11 talked about this a little bit during your depositions,
12 is it fair to say that any expertise that you have with
13 respect to communications issues is expertise which comes
14 from the fact that you have reviewed other off-site emergency
15 plans?

16 A (Witness McIntire) In my case, we have an
17 emergency paging system in FEMA's regional office in New
18 York. Every fourth month I am required to carry a pager.
19 Mr. Kowieski is also on that period.

20 So we have had, you know, extensive personal
21 use of paging systems. We know, for example, they do
22 not function when one is on the subway, but that is one of
23 the few places that we have found. We know our range is
24 approximately 50 miles. So we have, you know, personal
25 knowledge of the system that we have.

1 communications equipment in its Plan.

2 A (Witness McIntire) No formal determination.

3 Q Would you look , please, at Contention 30 on
4 page 33 of your testimony, pages 33 and 34, actually. The
5 first question posed on page 33 is: Are provisions contained
6 in the LILCO Plan sufficient to ensure effective communication
7 among LILCO field emergency personnel?

8 And I would like to know the answer to that
9 question, please.

10 A Again, this is another capability that we would
11 not be able to make a judgment on until there was an
12 exercise.

13 Q So, at this time you are unable to render an
14 opinion in this regard?

15 A We can from a planning standard.

16 Q Well, from a planning standard, Mr. McIntire,
17 what is your opinion?

18 A (Witness Kowieski) There are provisions in the
19 Plan sufficient to ensure effective communications among
20 LILCO field emergency personnel in the field. The Plan,
21 as we have already identified in our answer, there are four
22 radio frequencies that are dedicated for certain groups,
23 including three staging areas, plus EOC to road crews,
24 evacuation route spotters, and ambulance dispatch stations.

25 Q Are you aware of the fact, Mr. Kowieski, that

1 documents which we will mark as exhibits in a few minutes,
2 but let me just ask first of all, see if we can't make a
3 clarification, is it fair to say that as a general
4 proposition, the FEMA testimony, which has been presented
5 before this Board, is based on the RAC report and the
6 review of the LILCO plan which has been conducted by
7 the RAC committee and yourself?

8 A (Witness Kowieski) That is correct.

9 Q And is it fair to say, Mr. Kowieski, that
10 the RAC report, as a general proposition, was based
11 upon the RAC committee's review of the LILCO plan and
12 judgments regarding the plan's compliance with the criteria
13 of NUREG 0654?

14 A That is also correct.

15 Q Is it fair to say that the RAC review process
16 in the context we have just discussed is, therefore, a
17 review of the paper plan, that is, review of the plan and
18 whether the criteria of 0654 are satisfied or are not
19 satisfied?

20 A It was a review of the plan, measuring the
21 plan against the requirements of NUREG 0654, that is
22 correct.

23 Q Is it fair to say, Mr. Kowieski, that this
24 plan review has been conducted by FEMA and by the RAC
25 committee without consideration, at this time, for whether

1 the plan can and will be effectively implemented by LILCO?

2 A The plan was reviewed, as I stated, measured
3 against the requirements of NUREG 0654. We did not
4 evaluate whether or not the plan is capable of being
5 implemented. This would be done at a later stage during
6 the exercise.

7 Q Is it fair to say, Mr. Kowieski, that,
8 therefore, a FEMA-graded exercise of the LILCO plan
9 is required before FEMA can make a determination regarding
10 whether or not the LILCO plan can be implemented?

11 A As I believe I explained. The process that
12 we usually follow is that we first, the first step is
13 to review the plan, to review the plan for its compliance
14 with the requirements of NUREG 0654. It is the first
15 step.

16 The second step, which we evaluate the
17 preparedness and whether or not the plan can be implemented,
18 that obviously can only be accomplished during the
19 exercise.

20 A (Witness McIntire) We must point out also
21 that what Mr. Kowieski has described is the normal process,
22 and I think all the parties here at this -- around this
23 table understand that this is not a normal process.
24 So, therefore, they may have some caveats and there may
25 be some differences from the normal process.

1 the reading of the Plan, was designed to substitute, to
2 replace, the State and local resources.

3 That is the reason for this assumption, sir.

4 Q Is it fair to say, Mr. Kowieski, that this
5 assumption enabled the RAC Committee to assume that there
6 would be sufficient personnel to carry out the LILCO Plan?

7 A It would enable the Regional Assistance
8 Committee to conduct a Plan review. We did not -- I believe
9 I stated for the record that actually the resources that
10 are specified in the Plan are adequate or not will be
11 determined during the exercise.

12 Q Yes, sir. I understand that. Is it fair to
13 say, however, that by making this assumption, the RAC
14 Committee was able to assume that there would be personnel
15 available to LILCO to carry out the LILCO Plan, since there
16 would not be State and local personnel, emergency response
17 personnel to do so?

18 A That is correct.

19 Q And the third assumption, Mr. Kowieski, states
20 that the Plan does not reference the New York State radiological
21 emergency preparedness plan, and it has been submitted without
22 a State site specific plan. Do you see that?

23 A Yes, I do.

24 Q Is it fair to say that this assumption was made
25 because you do not want members of the RAC Committee to

1 Do you see that statement?

2 A Yes, we do.

3 Q Mr. Kowieski, I take it that you are not
4 saying that LILCO's backup means of communications --
5 that is, commercial telephones -- are adequate and will
6 provide assurance that notification and verification to
7 special facilities will take place; is that correct?

8 MR. GLASS: I am a little confused by the
9 question. You are using the term "adequate" and
10 "provide assurance." There is a difference between,
11 you are talking about adequate against NUREG standards
12 and you are -- we have gotten into this issue before.

13 BY MR. MILLER:

14 Q Mr. Kowieski, are you confused by my question?

15 A Yes, Mr. Miller.

16 Q Let me ask you again, looking at that first
17 sentence to the answer on page 52, is it fair to say
18 that you are not saying that LILCO's backup means of
19 communications, using commercial telephones, will provide
20 assurance that notification and verification to special
21 facilities will take place?

22 A What I am saying in this comment is that
23 provisions identified in the LILCO transition plan
24 satisfy the NUREG 0654 planning criteria.

25 Q So you are not making the statement regarding

1 whether or not such provisions actually would work, correct?

2 A That is correct. Again, it is a matter of
3 exercise or test.

4 Q You mention in your answer, Mr. Kowieski,
5 that a directory of mobility-impaired persons is being
6 compiled based on the completed survey cards

7 Do you see that?

8 It is towards the end of the answer on page 52.
9 It is also mentioned at the end --

10 A Yes, I do.

11 Q Have you seen this directory at this time,
12 Mr. Kowieski?

13 A I have not.

14 Q Will FEMA or the RAC review such directory
15 if it is indeed compiled by LILCO?

16 A Prior to or during the exercise.

17 Q On page 53 of the testimony, where you say that
18 the RAC has considered these provisions for protecting
19 mobility-impaired persons to be adequate, provided that
20 there is such a directory, do you see that statement?

21 A On page 53?

22 Q Yes, sir.

23 A Yes, I do.

24 Q I take it, Mr. Kowieski, that you are not
25 saying in this testimony that mobility-impaired persons will

1 Q Mr. McIntire, if there were no pre-planning by
2 the schools for an emergency at the Shoreham plant, would
3 that change your testimony in any regard?

4 A We did -- I don't understand the question now.
5 I am thoroughly confused.

6 Q Let me back up, Mr. McIntire. Why don't you
7 look at page 69 of your testimony, and it says after the
8 blocked indented material, we consider that the Plan contains
9 adequate provisions for protecting school children.

10 It goes on from there and talks about the plant
11 condition matter.

12 My question to you is: That assuming there were
13 no pre-planning by schools for an emergency at Shoreham,
14 would your testimony remain the same? That is, would you
15 still believe that the LILCO Plan contains adequate provisions
16 for the protection of school children?

17 A (Witness Keller) The Plan would contain
18 adequate provisions. I think what you are getting to is the
19 implementation aspect of this again.

20 The Plan would still contain what it contains.
21 The people may not be able to implement the Plan, if your
22 hypothetical were in effect, and that would change an
23 evaluation, perhaps, after an exercise, but it wouldn't
24 necessarily change the evaluation of the Plan.

25 Q Mr. Kowieski, would it be fair to say that the

6/8
1 Q And when you say that, in the first sentence
2 of the answer, "The plan designates the locations of the
3 various bus companies which have provided letters of
4 intent to LILCO," would you agree with me that busses
5 may be stored at locations other than the locations of
6 the various bus companies identified in the letters of
7 intent?

8 A (Witness Kowieski) Yes, I do.

9 Q Is it considered a plan deficiency that
10 the plan does not assign LERO drivers to any specific
11 bus company?

12 A (Witness Keller) As we stated in our written
13 testimony, the issue of bus accessibility, including
14 the drivers getting to the busses and getting the busses
15 to where they would have to be, would be assessed during
16 an exercise.

17 Q Looking at page 74, gentlemen, the statement
18 in bold type at the top of the page which, as you note,
19 is in the LILCO plan and procedure 3.6.5, do you consider
20 this statement to provide assurance that school children
21 will be supervised at the schools in the event of an
22 emergency at the Shoreham plant?

23 A (Witness Kowieski) Again --

24 A (Witness Baldwin) Yes. If this statement that
25 is contained in the plan is to be implemented, that is

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there is no specific requirement outlined in NUREG document that would ask that this, any given individual will report to any station, duty station, within thirty-five minutes or forty-five minutes.

Q What it asks for is timely activation, right?

A Well, I understand timely. Timely is already discussed, the issue of timely. We -- there will be exercise. If individuals will be able to arrive, to be on time to perform their duties, that will be timely.

(Witness Baldwin) And there is one other thing to make sure that the record is straight with our written testimony. And in our written testimony in the answer to Question 47, which is Contention 27.F, we specifically state that the plan contains no information upon which to base a determination as to whether the arrival of emergency workers required to report to field assignments would be timely.

Q So, in other words, you can't really determine whether H.4 is met until the exercise is held, correct?

A (Witness McIntire) We are getting back to this current problem. From a planning perspective, the RAC has concluded that the planning standard has been met. Whether it can be implemented again will be shown in an exercise.

Q But with respect to timeliness, the only

1 say that they are adequate, correct?

2 A From a planning perspective or a preparedness
3 perspective?

4 Q Why don't you give me the answer to both?

5 A We have, at this point in time, made a judgment
6 on the planning perspective. Then, we will look at the
7 implementability of the plan during an exercise and,
8 therefore, we might have a different finding.

9 (Witness Kowieski) If I can just add --

10 Q Excuse me. Just a second. Until you evaluate
11 those fuel deployment locations --

12 MR. GLASS: Mr. Miller, I thought our ground
13 rules were that if another witness wanted to supplement
14 an answer, he would be given an opportunity before the
15 attorneys went on.

16 Mr. Kowieski indicated his intent to supplement
17 Mr. McIntire's answer.

18 JUDGE LAURENSEN: That is correct.

19 BY MR. MC MURRAY: (Continuing)

20 Q Mr. Kowieski, I'm sorry for interrupting you.
21 And, my name is Mr. McMurray.

22 MR. GLASS: I'm sorry.

23 WITNESS KOWIESKI: With regard to the planning
24 aspects, just maybe as a reminder, the NUREG 0654 planning
25 criteria, J.10.K, states that it would require identification

1 Q And the others were just concerned about the
2 letters of intent, and nothing else?

3 A That is correct.

4 Q Mr. Baldwin, what was looked at in determining
5 whether or not the bus transportation scheme was, in fact,
6 adequate and I -- let's not go over the issue of letters
7 of intent, okay? Let's talk about the mechanism. The
8 actual working of the bus transportation scheme.

9 A (Witness Baldwin) What was looked at there
10 was whether the provisions for relocation were stipulated
11 in the Plan, and those provisions were there.

12 A (Witness Kowieski) Also, when we evaluated
13 the scheme as such, the thought process that went into it
14 made sense. So we evaluated it -- there was command and
15 control, there was good coordination. We felt that in
16 our opinion this should work. If it will work, it will
17 be determined during the exercise.

18 In other words, the concept, what we saw in
19 the past during the previous exercises for other nuclear
20 sites, it is not exactly the same. You have different
21 conditions. However, whatever we saw, whatever we read
22 in the Plan made sense to us, and in our opinion it should
23 work. If it will work, the exercise will tell.

24 Q Let me -- are you talking about your thought
25 processes, or are you speaking for other members of the RAC,

1 Drivers. Vehicles. Route maps to follow. And knowledge
2 of those people as to what it is they are to do.

3 Those things are set forth in the Plan and
4 procedures.

5 Q Those things are set forth, but other than
6 reading the words on the page you have not -- on the pages
7 of the Plan, you have not done anything to determine whether
8 or not that scheme will work, correct?

9 A (Witness Kowieski) Again, it is stated for
10 the record, this will be the next step -- next stage. When
11 we go to the exercise, prior to the exercise we will spend
12 great deal of time developing exercise objections and
13 exercise scenario, and we will go to the -- and when we go
14 to the exercise we will be well prepared to test, and we will
15 test, whether the scheme is going to work or not.

16 A (Witness McIntire) May I complete an answer,
17 please. Mr. Kowieski has also testified that based on the
18 RAC members and his own personal experience of observing
19 exercises, that knowledge entered into the discussion of
20 this point.

21 Q Have you reviewed other plans that have used
22 the transfer point scheme?

23 A (Witness Kowieski) Not in Region II.

24 (Witnesses confer)

25 No, we did not. To answer your question, if

1 effectiveness of a public education brochure?

2 A I will be glad to answer your question. What
3 we have done in the past during the exercises, we would
4 sample at random population within the ten mile EPZ.

5 I would assign each observer that after they
6 finished their regular task they would sample, lets say
7 each one of them five or ten residents, that some of them
8 would go to various public building facilities, the
9 restaurants, real estate offices, golf courses, every possibl
10 place that would be involved, or would have to follow the
11 recommendation made by decision-maker.

12 And we would ask those individuals, interview
13 individuals the questions of this nature: Are you aware that
14 your facility, that you are located within the ten mile EPZ.
15 We would ask them if they understand what kind of warning,
16 how the warning came about, the sirens, or route alerting,
17 and how they should respond. If they understand what is
18 necessary. What would be the next step?

19 And obviously, we would expect they understand
20 there is an emergency broadcast system, that they are
21 supposed to turn on the radio to EBS and listen for
22 instructions.

23 So, basically the effectiveness is if people
24 understand what they are supposed to do in case of an
25 emergency. This would be evaluated during the exercise.

1 participate.

2 No one, including them have ever considered that
3 they would not respond in fact in a real emergency , but
4 because of their non-participation, their role was simulated
5 by participants in the exercise.

6 I have three brief points to make about the
7 exercise in this litigation. First, LILCO believes that it
8 was sufficient in design and concept to provide the basis
9 for the issuance of a full power license, and we believe
10 that will be borne out amply in these proceedings.

11 Secondly, the standard for litigation of this
12 exercise, as with any exercise, is whether that exercise
13 displays fundamental flaws in the off-site plan.

14 Not trivial flaws, or intermediate flaws, but
15 fundamental flaws. As to fundamental flaws, the word,
16 'fundamental' is not equivalent or synonymous with
17 irreparable, and in fact, LILCO has taken steps to remedy
18 those areas which FEMA has considered to be relatively
19 important, namely those areas they have classified as
20 deficiencies, but also less significant areas, those areas
21 which are known as ARCAs, or areas requiring corrective
22 action and in also areas recommended for improvement.

23 LILCO believes that the exercise and the
24 remedial measures it has taken and which have been referred
25 to in the testimony and reviewed by FEMA and the NRC since

1 demonstrate adequate readiness for full power operation.

2 Third and finally, this is an expedited
3 proceeding as the Commission indicated last June in CLI 86-
4 11. One aspect of this is that -- and it is a measure also
5 of LILCO's concern with the importance of this proceeding.

6 Mr. Weismantle is the Vice President of Long
7 Island Lighting Company. Mr. Wilm is a Vice President of
8 Long Island Lighting Company. Other witnesses LILCO will
9 will put forward are senior executives with LILCO, who
10 because of its concern for off-site emergency preparedness
11 has placed these gentlemen in important roles in their off-
12 site organization.

13 Their testimony here is important because of
14 their knowledge and their involvement in the plan and the
15 exercise. And also, however, irretrievably detracts from
16 their ability to perform their normal duties. They are here
17 as long as is necessary. They will answer all questions
18 that are material and important. However, we urge the Board
19 to recognize that these gentlemen have very important
20 other responsibilities as well, and there may come times
21 when I am going to have to ask the Board's leave to let them
22 do their normal work as well as to participate in this
23 proceeding.

24 Thank you gentlemen. That is all I have. Mr.
25 Zeugin will be in charge of presenting the witness panel.

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this.

Now, much of the argument this morning has concerned law of the case, res judicata, and it is true that there must be an end to litigation, and all that kind of thing. But human beings are fallible. You are, and in particular I am.

And as a member of the Board that made this decision, the earlier decision, I am very aware that some of our decision was of the nature of prediction. The Interveners, the Government's claim that LILCO or LERO couldn't do a particular thing. We looked over the plan, and we decided that that thing was indeed possible, you could do it.

Now, we are faced with an exercise in which an attempt has been made to do certain of these things, and the Interveners now tell us those attempts failed.

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1 I cannot see why the doctrine of res judicata should
2 say that because a Board in a predictive manner said this is
3 possible and we believe it can be done that for all time
4 then, even if it turned out it couldn't be done, one must
5 decide that it can be done anyhow even if the world says no,
6 I could have made a mistake. It could be possible that I
7 believed that LILCO could do something in a reasonable
8 length of time, when in fact they couldn't.

9 I would like to have each of you address this
10 notion, that perhaps res judicata does not take precedence
11 over experimental fact in certain instances.

12 Do you see what I mean?

13 Mr. Reis was talking about it last and perhaps
14 he would like to discuss it first.

15 MR. REIS: In the legal framework which of
16 course we are in, and of course we try to mirror the real
17 world and there is no question about that, but we do have
18 certain rules and certain rules of finality.

19 One of the rules here is the mandate of the
20 Commission to the Board, the Charter of this Board, and in
21 the charter itself it said what has gone before is going to
22 be what is and what you should consider, and it sets out
23 your jurisdiction in effect. That is one answer.

24 The second is if it is really material, the
25 rules of the Commission have ways of changing and there can

1 A I would say yes.

2 Q And, are you telling me, sir, that you have no
3 basis for knowing which of those three assumptions was, in
4 fact, the case on the day of the exercise?

5 MR. ZEUGIN: Judge Frye, I will object to this
6 question. He is asking the witness to speculate.

7 The witness answered in the very first response
8 to Mr. Miller that he was not privy to the conversation
9 between the route spotter and the FEMA controller and could
10 only speculate that that was the reason why he reported it
11 as being east rather than north of the intersection.

12 JUDGE FRYE: Just to be sure it's in the record,
13 do you have any basis for knowing what may have occurred
14 between the route spotter and the FEMA controller?

15 WITNESS WILM: No, I don't, Judge.

16 JUDGE FRYE: Okay.

17 BY MR. MILLER: (Continuing)

18 Q Now, Mr. Wilm, once the information came into
19 the EOC stating that the impediment was, according to the
20 route spotter, east of the intersection and apparently that
21 was either about 11:50 or 11:55, then the next step
22 essentially was that road crew 2006 was dispatched to the
23 scene of the impediment; is that correct?

24 A (Witness Wilm) That's correct.

25 Q And, the instruction was given from the Road

1 Logistics Coordinator to the Evacuation Support Communicator
2 at, according to Attachment B-8, 11:50 for that road crew to
3 be dispatched; is that correct?

4 A That's correct.

5 Q And, according to your testimony, the road crew
6 actually left its field post and responded at 12 noon,
7 right?

8 A That's correct.

9 Q Now, Mr. Wilm, yesterday we had a discussion
10 about road crews and when they are at their positions in the
11 field. They essentially sit waiting for orders to respond
12 to impediments, with their radios on, ready to go.

13 Do you recall that discussion?

14 A Yes, I do.

15 Q Can you tell me then why it took 10 minutes from
16 the time the instruction was given to the road crew before
17 the road crew actually left its post to respond to the
18 impediment?

19 (Mr. Weismantle is conferring with Mr. Wilm.)

20 MR. MILLER: I am talking to Mr. Wilm right now,
21 Mr. Weismantle.

22 WITNESS WILM: It took 10 minutes to get to the
23 road crew to dispatch -- as I read this message, to
24 dispatch, to get the message to the crew to move from their
25 location over to the site.

1 way to the east side, correct?

2 WITNESS WILM: Yes, that's correct.

3 JUDGE PARIS: When did you communicate with them
4 and tell them to go north, or did you?

5 WITNESS WILM: At the time I got involved I was
6 unaware of where the road crew was. I was trying to do
7 something with traffic rerouting because I felt that we
8 ought to get fixed. I would have to consult my notes to see
9 what we did with the road crew. I don't believe that the
10 road crew was told that the accident was north, but they had
11 to report east to find the FEMA observer.

12 JUDGE FRYE: And they would have to report to
13 the FEMA observer to say yes, we're the road crew and we're
14 here to clear this accident or whatever?

15 WITNESS WILM: Yes, sir. As it turns out, the
16 note they got which said that the accident is north, it
17 didn't specify where the FEMA observer would be. So,
18 therefore, they missed the person. They found him at 12:45.

19 JUDGE FRYE: Excuse me?

20 WITNESS WILM: They eventually got there at
21 12:45.

22 JUDGE FRYE: And by "there," that's to the north
23 site on Yaphank Road?

24 WITNESS WILM: No, that would be to the FEMA
25 observer site.

1 that's what we are talking about.

2 MR. MILLER: Judge Frye, all I can say is that
3 it's a LILCO produced document.

4 JUDGE FRYE: We admitted it.

5 MR. MILLER: Okay.

6 JUDGE FRYE: It's in.

7 BY MR. MILLER: (Continuing)

8 Q Now, at the top of Page 11 of your testimony,
9 Mr. Wilm, you mentioned the fact that at 12:55 you asked
10 your staff to see to it that an EBS message regarding the
11 gravel and fuel truck impediments was prepared.

12 Do you see that?

13 A (Witness Wilm) Now, by the time that you made
14 this request to your staff, you had known of the gravel
15 truck impediment for about 40 minutes; is that right?

16 A That would be right.

17 Q Can you tell me why the delay in requesting the
18 preparation of the EBS message?

19 A I was more interested in getting the traffic
20 rerouted and getting the situation fixed. The fact that
21 there are traffic control point guides to guide traffic,
22 this EBS message I felt was a plus but it wasn't as
23 important as getting all of the traffic rerouted and getting
24 the planning into place.

25 So, I did it in order -- I took care of the two

1 impediments and then I thought that now we ought to get a
2 message out on what we did.

3 Q Now, the message was finally prepared and
4 approved for release at 1:45; is that right?

5 I'm looking on Page 12 of your testimony, midway
6 down.

7 A Yes, I see that.

8 Q So, would you agree with me that it was approved
9 at 1:45?

10 A Yes, I agree.

11 Q Do you know what time the message was actually
12 released?

13 A I would like to confer.

14 (The witnesses are conferring.)

15 (Witness Weismantle) The broadcast actually
16 started at 1346. In other words, it was approved and
17 immediately sent over the air once the sirens were sounded,
18 which happens almost instantaneously.

19 Q Now, would you look, Mr. Wilm, at the message
20 itself which is Attachment B-17? The second page describes
21 that part of the EBS message that was, according to Mr.
22 Weismantle, released at 1:46 with respect to the two
23 impediments; is that right?

24 A (Witness Wilm) That's right.

25 Q And, with respect to the gravel truck

1 impediment, it simply states that people utilizing Middle
2 Country Road should not try using the Yaphank-Middle Island
3 Road due to a multiple vehicle accident at the intersection
4 of Yaphank-Middle Island Road and Main Street in the west
5 Yaphank area.

6 Do you see that statement?

7 A I do.

8 Q So, the message did not describe in any way the
9 rerouting of traffic around the impediment, did it?

10 A The purpose of the message was to --

11 Q Mr. Wilm, my question is, the message did not
12 describe rerouting around the impediment, did it?

13 A It didn't have to. No.

14 Q Now, Mr. Wilm, in fact, during the exercise it
15 was reported at 1:30 by the road crew that had been
16 dispatched to the scene that the gravel truck had been
17 cleared from the roadway and that traffic had resumed in
18 both directions.

19 Do you see that statement on page 12 of your
20 testimony?

21 A Yes.

22 Q Why would you at 1:46 advise the public to stay
23 away from an area where at 1:30 you had been given
24 information that said the impediment was removed and traffic
25 flow had resumed in both directions?

1 A I would like to defer the answer to your
2 question to Mr. Weismantle, who would be more familiar with
3 the preparation and the timeliness of the EBS message.

4 (Witness Weismantle) That EBS message I was
5 involved in as well, and I was aware of the discussion
6 between Mr. Wilm and the Coordinator of Public Information.
7 And, I had some discussions with the Director and the
8 Coordinator of Public Information on it.

9 We felt, and I felt and, as Mr. Wilm said, we
10 felt it was a good idea to send something out but certainly
11 very much secondary to the prime focus of rerouting traffic.

12 Second, at the same time this message was being
13 prepared, there was an analysis going on of what areas were
14 contaminated. We knew by then there was certain
15 contamination out there.

16 And, in the Rad Health area in particular, they
17 were looking at which zones to direct people to the
18 Coliseum. And, if you look at the beginning of the first
19 page of the EBS exhibit, which is B-17 I believe, you will
20 see that that message contains in the fourth paragraph a
21 recommendation that Zones A, B, F, G, K and Q should report
22 to the Coliseum for monitoring.

23 So, that analysis controlled when the message
24 came out. We felt it was much more important to identify
25 that, the need for those residents to go to the Coliseum.

1 And the message was held up.

2 That resulted in a delay in its issuance until,
3 in retrospect, the accident had actually been cleared. But,
4 there was no harm done by that. It wasn't, in our opinion,
5 really necessary that the EBS message go out in the first
6 place because all of those residents that were effected by
7 the impediments were being handled through the rerouting.
8 If they had never -- if they hadn't tuned their radios in,
9 it wouldn't have made any difference. They would have seen
10 the traffic guides and been rerouted anyway.

11 Q Well, my question has not been answered but I
12 will explore your answer some, Mr. Weismantle.

13 Why did you not just put out two EBS messages
14 rather than one rather than hold up the message?

15 A Because the way things happened, the attention
16 of the Director had to be primarily on the contamination
17 issue, and a lot of my attention was on that, too. It
18 wasn't considered important.

19 And I still don't consider it important to have
20 gotten the EBS message out on the road impediment situation.

21 Q Since the exercise, Mr. Weismantle, have you
22 changed the LILCO plan to essentially require that an EBS
23 message be issued in response to roadway impediments during
24 an exercise?

25 A That's right.

1 Q And the log that we have been looking at, Mr.
2 Wilm, C-9, says that your first response was the fire
3 department and to send the route alert driver with the
4 dosimetry, right?

5 A That's what it says, yes.

6 Q Can you tell me when the route alert driver with
7 the dosimetry was actually dispatched?

8 A Well, on page 16 it shows that the route alert
9 driver was dispatched at 12:50, the last sentence of the
10 first paragraph.

11 Q And that refers to Attachment C-10 of your
12 testimony. So there was an instruction to dispatch the
13 route alert driver at 1237 and that person was actually
14 dispatched at 1250, right?

15 A That's right.

16 Q The message itself, Mr. Wilm, does not mention
17 anything dosimetry equipment, does it?

18 JUDGE PARIS: Anything about what, Mr. Miller?

19 MR. MILLER: Dosimetry.

20 (Pause while the witness reviews documents.)

21 WITNESS WILM: It doesn't.

22 BY MR. MILLER:

23 Q Now again, Mr. Wilm, at 1255 there is the
24 reference where you instructed your staff to make sure that
25 an EBS message was prepared for the impediments. Do you see

1 A It could be. I'm not sure. I didn't keep track
2 of when we determined how we were going to do it. The logic
3 evolved that we had an overturned truck and that we should
4 remove the fuel.

5 I'm not really -- I can't pinpoint that time,
6 when we did decide that.

7 Q Well, isn't it true, in fact, Mr. Wilm, that
8 there is no documentation regarding the necessity for
9 contacting a company to off-load the fuel from the
10 overturned tanker until this notation at 2 o'clock when
11 someone was instructed to contact Hess Oil Company?

12 A That's correct. Before we did that, we had to
13 find out who the truck belonged to. And, that was an issue
14 where we couldn't -- we thought we needed that information
15 as to whose truck it was and then we would contact them to
16 get a tanker.

17 So, that information, as I testified before, I
18 believe was supplied by a FEMA observer that was listening
19 to the discussion.

20 Q And, if I recall your testimony, Mr. Wilm, you
21 can't find any documentation of that discussion with the
22 FEMA observer if, in fact, it took place; and, you don't
23 know what time that would have been, do you?

24 A I can't recall, no.

25 Q Now, in the real world, Mr. Wilm, isn't it true

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1 participation and the verbal critique you get right at the
2 end of the drill by the controllers, the purpose being to
3 feed back immediately to people in general how they
4 performed so that they can reinforce certain points for the
5 purpose of improving performance in the future. I don't
6 recall any mistakes. I'm sure if you went back and
7 reconstructed everything there were probably areas of
8 improvement. But I can say on the essentials, the nature of
9 the response, the speed of the response, et cetera, I recall
10 we did very well, and that's what the controllers told us.

11 Q Let me ask you, Mr. Weismantle, following the
12 exercise there were -- and to make sure we have the correct
13 terminology, I always just say exercise to refer to the FEMA
14 exercise, and I will try to talk to you about training
15 drills to be these other training events that LERO
16 undergoes.

17 Following the exercise, Mr. Weismantle, there
18 are and have been periodic training drills of LERO
19 personnel; is that correct?

20 A That's right. It's part of our annual program.

21 Q And in fact, Mr. Weismantle, do you recall the
22 initial training drill following the exercise was in June of
23 1986?

24 MR. ZEUGIN: Objection. I believe the witness
25 has already testified that all he remembered was the one

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drill he participated in.

MR. MILLER: Judge Frye, if you give me some leeway I think I can set the foundation here and it will be relevant.

JUDGE FRYE: That's not the objection.

Do you know the answer to the question?

WITNESS WEISMANTLE: Well, to the best of my recollection, because some of my employees were involved in other drills, I believe there were drills in June or July, in the summer, and I would accept June subject to check, but I don't have firsthand knowledge of the performance.

JUDGE FRYE: I think that clears up the answer. That's the answer to that question.

BY MR. MILLER:

Q Mr. Weismantle, isn't it true that during this June drill that the scenario involved the exact same two impediments, the fuel and the gravel truck impediments that were used during the February 1986 exercise?

MR. ZEUGIN: Objection, Judge Frye. Again, the witness at best tried to remember when his employees were at a drill, and it seems to me he has no way of knowing.

JUDGE FRYE: Do you know?

WITNESS WEISMANTLE: I don't know what the scenario was in June.

MR. MILLER: Judge Frye, I am having handed out

1 a six-page document and if we could mark this for
2 identification as Suffolk County Exercise Exhibit 12. It is
3 Bate stamped by my law firm as it was a document produced
4 during discovery with numbers 765720 through 765725. In the
5 bottom right-hand corner it's dated October 31, 1985, and
6 it's entitled "Drill Report For June 6, 1986 For LERO
7 Facilities, EOC, ENC and Riverhead Staging Area (Partial)."

8 (The document referred to was
9 marked Suffolk County Exercise
10 Exhibit No. 12 for
11 identification.)

12 MR. ZEUGIN: Judge Frye, I know there isn't a
13 pending question. I would merely reiterate I think my
14 earlier objection, which is we are going into a document
15 that obviously from its title is a drill report from a June
16 6th exercise that none of these witnesses were involved in
17 and obviously can't speak to. I don't see the purpose of
18 going through any of this.

19 As I said before, LILCO will address the
20 responses in its training testimony. I just don't see what
21 we gain by going through this exercise.

22 MR. MILLER: Judge Frye, may I just proffer what
23 we're looking at?

24 JUDGE FRYE: I have a question before you
25 proffer. What happened to Exhibit 11? Did I miss it

1 somewhere along the line?

2 Okay, that's the transcript.

3 MR. MILLER: It's the Deposition of Saricks and
4 we're pending a ruling on that.

5 JUDGE FRYE: All right, and your proffer?

6 MR. MILLER: My proffer, Judge Frye, is
7 relatively simple. There is a statement in the testimony
8 which discusses the fact that LERO had not practiced
9 handling impediments of the size and severity as they faced
10 during the exercise, and that in part was responsible for
11 the performance that was rendered. That's the second
12 sentence on page 19 of the testimony.

13 I will show through this document that the same
14 impediments, the fuel truck and the gravel truck impediments
15 were used in a training drill subsequent to the exercise by
16 some four months and that the LERO response to those
17 impediments in that June drill were at least equally as
18 poor.

19 I think this goes to the statement made in the
20 testimony that somehow LERO should not be judged too harshly
21 given what they faced during the exercise.

22 MR. ZEUGIN: Judge Frye, I don't see any
23 relationship between the two. The statement refers to the
24 period prior to the exercise. The point of that statement
25 was what went on and how LERO trained before the exercise.

1 This document relates to a drill that took place four months
2 after the exercise, and I just don't see how it's relevant
3 to the testimony Mr. Miller cites.

4 JUDGE FRYE: What is the history of this
5 document and who prepared it?

6 MR. MILLER: The history of the document, Judge
7 Frye, it was prepared by Impell Corporation which I
8 understand is a consultant contractor to LILCO that handles
9 training for LILCO.

10 JUDGE FRYE: Is that correct, Mr. Zeugin?

11 MR. ZEUGIN: That's correct.

12 MR. MILLER: It was provided to the governments
13 through discovery.

14 JUDGE FRYE: And the "To" and "From," was that
15 deleted for some reason, or was that just not there at all?

16 MR. ZEUGIN: My guess is it was redacted because
17 it was names I do not know because I've never seen this
18 document before myself.

19 JUDGE FRYE: Then how come it's dated October
20 31, '85?

21 MR. ZEUGIN: I think that's '86. I think it's
22 basically poor copying.

23 MR. MILLER: Judge Frye, my understanding, the
24 date of October 31, 1986, and it is '86, at that time Impell
25 Corporation did drill reports for drills held also in

1 September and October, and apparently they just combined and
2 did the June drill at the same time they did the September
3 and October drills.

4 JUDGE FRYE: All right. Now where does it say
5 they made the same mistakes?

6 MR. MILLER: Can I do this through the witnesses
7 or do you want the proffer to continue?

8 JUDGE FRYE: I want the proffer.

9 MR. MILLER: Do you want to do this in front of
10 the witnesses, Judge Frye?

11 JUDGE FRYE: Well, if you want to approach the
12 bench.

13 (Bench conference off the record.)

14 BY MR. MILLER:

15 Q Mr. Weismantle, let me just ask you, have you
16 seen this document regarding the drill report for June 6th,
17 1986 before?

18 A (Witness Weismantle) I don't think so. I get a
19 lot of information. I don't think I've seen it. If I have
20 seen it, I certainly didn't review it or read it.
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1 Q Mr. Weismantle -- well, let me ask Mr. Wilm,
2 have you seen this document before, sir?

3 A (Witness Wilm) I have not.

4 Q Mr. Lieberman, have you seen this document
5 before?

6 A (Witness Lieberman) No, I have not seen the
7 document. I believe I recognized perhaps one or two
8 excerpts in the County testimony.

9 Q Mr. Wilm?

10 A (Witness Wilm) That's the same for me, too.
11 The one or two excerpts in the County testimony.

12 Q Mr. Weismantle, I would like to ask you again if
13 you think you've seen this document before?

14 A (Witness Weismantle) I don't think so. As I
15 indicated before, I have not read the County testimony on
16 this issue or any other.

17 JUDGE FRYE: I think that probably pretty well
18 means we are going to have to hold this document for now.

19 MR. MILLER: Well, Judge Frye, I would like to
20 explore that for a moment. This document was provided by
21 counsel for LILCO. It is written and prepared by a LILCO
22 consultant.

23 It addresses matters that are directly relevant
24 to their testimony. And, are you saying that because these
25 witnesses have not seen the document --

1 JUDGE FRYE: I think, before you go any further,
2 if I recall what Mr. Zeugin said, he will have witnesses
3 available later with regard to Contention 50 who are
4 familiar with this document.

5 So, I think you are just going to have to wait
6 until you get them.

7 MR. ZEUGIN: That's correct, Judge Frye.

8 MR. MILLER: Well, Judge Frye, if we have to
9 wait until Contention 50, we will obviously do so. It's
10 just that this is very relevant to the issues now before the
11 Board.

12 And, there is not a question of authenticity
13 being raised here, as far as I understand it. I don't
14 believe that's Mr. Zeugin's objection. I think his
15 objection is one of relevance.

16 JUDGE FRYE: If it gets in, it gets in, you
17 know. I mean --

18 MR. ZEUGIN: Judge Frye, I would merely note
19 that it was Suffolk County who drafted their contentions the
20 way they chose to draft them. They drafted an entirely
21 separate contention on training, and that's how LILCO has --

22 JUDGE FRYE: I don't, you know, intend to --
23 when the three of us sit down to write a decision -- ignore
24 this document if it's relevant to Contention 41 just because
25 it happened to be talked about in connection with Contention

JW/sw

1 Q Now you have a statement at the end of the
2 paragraph about the drill scenarios that have been used
3 since the exercise, do you see that statement?

4 A Yes.

5 Q Are these the same drill scenarios you told me
6 yesterday you had not seen since the exercise?

7 A What I said yesterday is I did not have knowledge
8 of the precise scenarios other than the one I played in in
9 December, of course, that we used in the training drill,
10 since the exercise.

11 That is right. I didn't know the details of it.
12 I did, of course, know that impediments were going to be
13 part of the scenarios; I didn't know exactly what type, and
14 the precise parameters of it.

15 Q And what was your knowledge based upon if you had
16 not seen the drill scenarios themselves?

17 A I knew that there were training program revisions
18 that we committed to shortly after the exercise to FEMA and
19 that part of the revisions were to include impediments in
20 them.

21 In fact, I was involved in discussions within two
22 or three weeks of the exercise. Conceptual discussions as
23 to what our approach would be to handle what we knew because
24 of FEMA's verbal comments the day after, and the day after
25 that after the exercise, in the public meeting, they felt

GJW/sw

1 were areas of improvement.

2 Q So, you were involved in deciding, at least in
3 part, the types of road impediments that would be used in
4 training drills following the exercise?

5 A Not the types, but the fact impediments and major
6 impediments would be included, yes. And in the decision to
7 add the traffic engineer, for instance, to the LERO
8 organization.

9 Q And I gather, Mr. Weismantle, if you will follow
10 along with me into the next sentence of this page, that you
11 rely in part at least on these training drill scenarios and
12 their inclusion of roadway impediments to support your
13 statement that training since the exercise should eliminate
14 response delays observed during the exercise?

15 A Yes.

16 MR. MILLER: Now, at this point, Judge Frye, I
17 would like to again go back to Suffolk County Exercise
18 Exhibit No. 12, and I think that is the right number, from
19 yesterday, which is the June 6, 1986 drill report.

20 JUDGE FRYE: IMPELL Corporation.

21 MR. MILLER: The IMPELL Corporation, yes, sir.
22 We have additional copies if people did not bring them with
23 them.

24 BY MR. MILLER: (Continuing)

25 Q And one other background question, Mr.

1 Weismantle. I believe it was Wednesday of this week when I,
2 pursuant to the Board's instructions, with respect to
3 possible exhibits that may be used in this case, provided a
4 file to counsel and you and counsel reviewed that file,
5 isn't that correct?

6 A I looked over Lee's shoulder very briefly while
7 he was leafing through some of the materials, but that
8 didn't constitute a review by me.

9 Q Did you see the June 6th drill report in that
10 file that I handed to Mr. Zeugin?

11 A Not that I recall. I saw a lot of internal LERO
12 messages for that portion of what he was leafing through. I
13 was looking over his shoulder.

14 Q Have you reviewed this drill report since we left
15 the room yesterday?

16 A Not since we left the room, no.

17 Q It is still your testimony that you never seen it
18 before?

19 A I think what I said was it may have passed my
20 desk. I may have physically seen it. I didn't review or
21 read it before.

22 Q Is it still your testimony, Mr. Weismantle, that
23 based upon the performance of LERO in training drills since
24 the exercise, you believe that LERO can eliminate the
25 response delays observed during the exercise by FEMA?

GJW/sw

1 MR. ZEUGIN: Objection, Judge Frye. It seems to
2 me we are wasting a lot of time going back over ground we
3 covered yesterday. The witnesses yesterday, I think,
4 explained very clearly that they are unaware of the
5 specifics of results of drills that have taken place
6 subsequent to the exercise.

7 I think the language that Mr. Miller has seized
8 upon now on page 29, to attempt to go back and do that, in
9 the sentence he just misquoted simply says, and it is a very
10 general conclusion, that viewed in their entirety, these
11 plan and training provisions should eliminate.

12 Mr. Miller has now changed the focus of that
13 statement to suggest a very specific conclusion by
14 Mr. Weismantle. I don't that is what that sentence says at
15 all.

16 MR. MILLER: Judge Frye, I am willing to explore
17 that with Mr. Weismantle. But he has testimony here that
18 discusses drill scenarios since the exercise. He relies at
19 least in part, as I said, on those drill scenarios,
20 according to his testimony, for his conclusions about how
21 LERO should be able to handle impediments in the future.

22 That is what I would like to explore with
23 Mr. Weismantle.

24 MR. ZEUGIN: Judge Frye, I don't think Mr.
25

GJW/sw

1 Weismantle has ever said anywhere that he relies on the
2 drill reports as the basis for those statements.

3 MR. MILLER: Well, I think it speaks for itself.

4 JUDGE FRYE: He says here relying on the plan and
5 training revisions. Isn't that included?

6 MR. ZEUGIN: I think he is referring to the
7 revisions in general. I think that is what he just answered
8 when he described the conceptual changes he just talked
9 about.

10 JUDGE FRYE: Well, I think I am going to permit
11 the question, and we will go down this line a while and see
12 where we go.

13 MR. MILLER: It will be brief, Judge Frye.

14 BY MR. MILLER: (Continuing)

15 Q Mr. Weismantle, we are looking at what has been
16 marked as Suffolk County Exercise Exhibit 12, which is
17 identified as the June 6, 1986 drill report for LERO, and
18 apparently was prepared by IMPELL Corporation.

19 Would you identify for me IMPELL Corporation?

20 A (Witness Weismantle) Well, they are a consulting
21 firm who have supplied people in the past, and I assume
22 continue to do so up to this day to help run our training
23 program, either as instructors, or drill controllers, and
24 that sort of thing.

25 Q Is it fair to say that IMPELL is a long

JW/sw

1 standing LILCO consultant?

2 A Yes. They have been involved since the beginning
3 of LERO, that is correct.

4 Q And would you agree with me Mr. Weismantle, that
5 it appears that IMPELL Corporation prepared this drill
6 report?

7 A Well, an individual from INPELL, I am sure
8 prepared it.

9 Q And, Mr. Weismantle, I direct your attention to
10 certain passages in this drill report, and then ask you your
11 opinion about whether you still believe the training drill
12 since the exercise has demonstrated LERO's ability to
13 respond to roadway impediments?

14 MR. ZEUGIN: I don't think that is what
15 Mr. Weismantle has previously testified to. I don't think
16 he has said anything about whether any subsequent
17 performance is acceptable or not.

18 JUDGE FRYE: Let him answer. If that is the
19 case, I am sure he will tell us.

20 WITNESS WEISMANTLE: My testimony talks about the
21 plan and training revisions should eliminate the response
22 delays. Yesterday, I testified to the performance in
23 December of Mr. Wilm, myself, Mr. Lieberman, and others.

24 BY MR. MILLER: (Continuing)

25 Q Let me back up, Mr. Weismantle.

TJW/sw

1 A That is the only point I touched upon actual
2 drills.

3 Q Is it your belief that in training drills since
4 the exercise, LERO has demonstrated an ability to handle
5 simulated roadway impediments?

6 A In the December drills, yes. As I said yesterday
7 repeatedly, I am not knowledgeable about the performance in
8 the other drills, with the other shifts.

9 I wasn't a participant. I wasn't responsible for
10 running it.

11 Q Now, Mr. Weismantle, are you, therefore, telling
12 me that it may be that in training drills from the exercise
13 up through December LERO was not able to demonstrate the
14 ability to respond to roadway impediments?

15 A As I repeatedly say, I am not knowledgeable of
16 the --

17 JUDGE FRYE: He doesn't know.

18 WITNESS WEISMANTLE: I don't know.

19 BY MR. MILLER: (Continuing)

20 Q Mr. Weismantle, would you look please at the
21 first page of this exhibit? You see in the second paragraph
22 a statement that the scenario used in June was essentially
23 the same as was used during the FEMA-graded exercise on
24 February 13th?

25 A I see the sentence that says that.

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JW/sw

1 Q Now, do you see, Mr. Weismantle, at the bottom of
2 the page, various bullets, and you see the statement that as
3 a result of the exercise on February 13th, the following
4 specific additional objectives and tests were added to the
5 drill scenario?

6 A Yes, I see that statement.

7 Q Do you see the very first remark, two impediments
8 to evacuation were simulated to test the communications
9 within LERO and LERO's response to the impediments, namely
10 rerouting of traffic and public notification of the
11 impediment?

12 A I see the statement, yes.

13 Q And at the bottom of the page, sir, doesn't it
14 state that the traffic engineer was tested in his new
15 position?

16 A Yes.

17 Q Now, if you would go, Mr. Weismantle, to page 4
18 of this document, we have a statement in paragraph 21 about
19 the two road impediments.

20 It says that the handling of the first
21 impediment, the gravel truck, was generally done in a well
22 organized and expeditious manner. The second road
23 impediment, the fuel truck, was confused and response was
24 delayed. Do you see that statement?

25 A That is correct; I see those two statements.

1 Q And do you see a whole array of problems that
2 were noted during the drill, Mr. Weismantle, relating to the
3 handling of the road impediments?

4 They start at the bottom of page 4 and go over to
5 page 5.

6 A Yeah, I see statements about them. Not having
7 read this, not knowing if, in fact, they are supported by
8 the facts of the day of the exercise, I do not think I can
9 characterize them.

10 Q Let me just ask, Mr. Weismantle. Do you have
11 some reason to doubt the accuracy of this drill report that
12 was prepared by LILCO's consultant, IMPELL Corporation?

13 MR. ZEUGIN: Objection. Mr. Weismantle has
14 testified numerous times now that he wasn't involved in the
15 whole process, so I don't see how he can even begin to draw
16 any kind of such conclusion.

17 JUDGE FRYE: I agree. I don't see how he can
18 answer that question. This has been admitted, hasn't it?

19 MR. MILLER: It has not been admitted, Judge
20 Frye, because yesterday there were objections to it. I am
21 not seeking to admit this document.

22 MR. ZEUGIN: I guess, Judge Frye, I said
23 yesterday, and I will say again today if it helps, LILCO
24 will present a panel on Contention 50 that will be able to
25 discuss this document and any other post-exercise drill

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critique that Mr. Miller may want to talk about.

JUDGE FRYE: My recollection was that this was admitted.

MR. MILLER: I don't believe so, Judge Frye. I don't believe it was admitted. I would move it into the record, now, Judge Frye, and we can come back to it in Contention 50, and it will be an exhibit already in the proceeding.

MR. CUMMING: Judge Frye, FEMA would object to its admission for a very specific reason. We think that with respect to this exercise litigation as being precedential. We understand that all parties may wish to introduce post-exercise material, and we believe that the Board should focus on that, and to the extent possible, if it decides to generically allow the admission of post-exercise material for whatever purpose, an example might be that FEMA has produced a guidance memorandum which might be favorable to the intervenors or it might be favorable to the applicant.

For example, that might be something that they would want to introduce, depending on which party was involved and the nature of the document. It would be helpful to us so that we would understand how exercise litigation In Futuro would proceed, that we would understand what the standards of admission of post exercise materials

20 05 02
JW/sw
1 A Okay.

2 Q Isn't it true that two road crews showed up at
3 the Port Jefferson staging area, having neglected to bring
4 their vehicles with them as they are required to do?

5 JUDGE FRYE: Let's divide that into --

6 WITNESS WEISMANTLE: Yeah.

7 JUDGE FRYE: Did two show up having neglected to
8 bring their vehicles?

9 WITNESS WEISMANTLE: They didn't bring their
10 vehicles but that --

11 JUDGE FRYE: Were they required to bring them?

12 WITNESS WEISMANTLE: They personnaly, no, were
13 not required co.

14 JUDGE FRYE: Okay.

15 BY MR. MILLER: (Continuing)

16 Q Mr. Weismantle, under the LILCO plan are road
17 crew personnel assigned to pick up the vehicles used in the
18 performance of their duties prior to reporting to staging
19 areas?

20 A Generally, no. What happens at Port Jefferson is
21 during the call-out, the phone chain that calls these road
22 crews out, a certain number of them -- and it's done not by
23 individual name but by individual location relative to
24 vehicle location so, therefore, it could be different every
25 time -- are supposed to be asked to bring vehicles.

w/sw

1 Apparently, that part of the phone message was
2 left out by the caller, at least to the extent that he only
3 got two vehicles when he should have gotten four.

4 Q Now, when those personnel -- there were four road
5 crew members that showed up at Port Jefferson without
6 vehicles to put them in; is that correct?

7 A There were a lot of road crew members that showed
8 up at Port Jefferson. Only two vehicles showed up. There
9 should have been four vehicles, but I don't want to assign
10 them to individual names because that's not the way the
11 system works.

12 Q Okay. Now, when only two vehicles were there,
13 what you are telling me is that four road crew members were
14 sent from the Port Jefferson staging area to Brentwood to
15 pick up two vehicles?

16 A That's correct.

17 Q And, in fact, Mr. Weismantle, if you will look at
18 what we have marked for identification as Suffolk County
19 Exercise Exhibit 13 --

20 A We may not have marked that. Can you describe it
21 further?

22 Q It's the one that we had discussion about
23 yesterday regarding the Stone and Webster evaluation of the
24 EOC duties of the traffic group on the day of the exercise.

25 A I think we have to search a bit before we can

20 05 '04
JW/sw
1 find it. Okay.

2 MR. MILLER: Does the Board still have the --

3 JUDGE FRYE: Yes.

4 BY MR. MILLER: (Continuing)

5 Q Now, Mr. Weismantle, if you will look at the last
6 page of that exhibit, the very first entry: "Two road crew
7 vehicles failed to be obtained on call-out and were not
8 brought to Port Jefferson staging area by arriving road
9 crews."

10 Do you see that?

11 A Yes.

12 Q This is what you were just describing to me,
13 isn't it?

14 A That's correct.

15 Q Now, Mr. Weismantle, one of the road crews -- in
16 fact, I think both road crews that had to be sent to
17 Brentwood, they were road crews 2011 and 2012; is that
18 right?

19 A Subject to check, I will accept that.

20 Q And, road crew 2011 is the road crew that
21 eventually was dispatched to the fuel truck impediment
22 during the exercise, correct?

23 A That's correct.

24 Q And, if I recall correctly, that dispatch to the
25 scene of the fuel truck impediment, actually deployment to

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the scene of the fuel truck impediment, was at about 1:50 on the day of the exercise?

A That's correct.

Q Now, isn't it true, Mr. Weismantle, that the reason that road crew was not deployed sooner to the scene of the fuel truck impediment is because the vehicle was not available until shortly before that time?

A I would like to confer for a second.

(The witnesses are conferring.)

No. I don't agree with that.

Q Do you know, Mr. Weismantle, what time personnel arrived at Brentwood to pick up the vehicles they used during the exercise, including this road crew 2011?

A I can give an approximation. If they were dispatched from Port Jefferson at 11:58, it probably took them about 25 minutes, half an hour, to get to Brentwood.

Q So, your guess would be about 12:30?

A That's my best estimate.

Q Now, do you know what time they left Brentwood with their vehicles?

A I assume they left almost immediately. You know, they obtained the vehicle, got in it, and they went towards their road crew locations in the field.

Q Do you know what time road crew 2011 arrived at his deployment location in the field?

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JH/sw
1 paragraph VI A.5, at 21 NRC 759, and the Contention which is
2 reprinted at 21 NRC 999 to 1,000, you will find that they
3 were dealing with a contention that asserted that backup
4 notification was due in 15 minutes.

5 We, therefore, view the rest of the holding there
6 as being dicta, and not a holding.

7 Paragraph 2 raised a question with regard to
8 whether the 45 minute allegation of the Contention -- or of
9 the testimony was an after the fact attempt to expand the
10 contention, and we do not view it as such.

11 The rest of it, paragraphs 3 through 7, we think
12 are appropriate background information.

13 We also deny the motion to strike the portions of
14 the testimony on Contention 40, We viewed paragraphs 1 to 3
15 as essentially being frivolous. We viewed paragraph 4 as
16 providing background information, but I would note that we
17 will consider only the scenario that was exercised on
18 February 13, and not some other scenario.

19 Paragraph 5, we believe that the testimony there
20 is relevant to Contention 40, in that that contention
21 alleges that traffic guides were too late to provide
22 effective assistance to evacuees.

23 Paragraph 6, we view as appropriate background.
24 Paragraph 7, while the testimony there does allude to
25 matters which were previously litigated, it is necessary

1 background to understand Suffolk's position. That it is
2 necessary that traffic guides be promptly posted, and that
3 the exercise failed to demonstrate that this was
4 accomplished.

5 As I indicated, we are not going to review any
6 conclusions already reached concerning the adequacy of
7 LILCO's traffic control plans.

8 Paragraph 8, we believe that the testimony may
9 properly take issue with FEMA's conclusions, and I might
10 note parenthetically this morning we certainly reviewed
11 testimony of LILCO's that seemed to do the same. Our
12 decision will address the question of what constitutes a
13 fundamental flaw.

14 In regard to the motion to strike portions of the
15 testimony on Contention 41, we grant the motion as to the
16 first -- as stated in the first paragraph. We view that
17 testimony as being speculative, and dealing with matters
18 that have already been litigated, and not necessary
19 background to understand the County's position.

20 The rest of that we deny.

21 Paragraphs 3, 4, 6, 7, 10, 11, and 12 all appear
22 to be appropriate background. Paragraph 5 states Suffolk's
23 opinion on the consequences of delays, and we view that as
24 being appropriate. We view the matters stated in
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1 incident, the patrol officer himself may very well make that
2 decision. If it's a major thoroughfare and involves the
3 response of two or three units, it may very well be made by
4 a patrol sergeant.

5 But, it's made at a low level. It's made by --

6 WITNESS MCGUIRE: Well, it also would depend on
7 how much advance warning we had. If it happened like now,
8 it would be the PO and the Sergeant out there. If it was
9 going to be tomorrow at this time, we would hope a
10 Lieutenant or maybe a Captain would get involved in the
11 planning.

12 JUDGE FRYE: Let's assume that we have got the
13 gravel truck and three automobiles that FEMA postulated,
14 what happens?

15 WITNESS MICHEL: Well, it's the kind of thing
16 that can't be predicted in advance so, therefore, I think it
17 would be made at the low level. It would be made by the
18 responding police officer who was initially on the scene.

19 Once he checked for injuries, the next thing he
20 would do is divert traffic. That would be part of his
21 responsibilities.

22 JUDGE FRYE: And, he would report to the
23 Sergeant that he had diverted --

24 WITNESS MICHEL: If he needed further
25 assistance. If it was a situation where it involved an

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impediment of this nature, he would probably call for additional assistance, have a second sector unit respond, perhaps a supervisor and set up some type of a traffic scheme.

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block three lanes of the expressway and would require that it be shut down at the exist closest to that accident. We might find, and this has happened many times, that by diverting traffic off at the ramp just before that accident, you create tremendous confusion right in that immediate vicinity, so it might be better to move back two exists to some place where you have a major north-south route crossing the expressway, and divert traffic and that point rather than the exist closest to the impediment itself, because there is a major thoroughfare there that people can deal with and are familiar with.

Therefore, will move it under those circumstances, and we will have the flexibility to do that.

JUDGE FRYE: But now at that point, if you are making that kind of decision, that would be somewhat above the responding officer.

WITNESS MICHEL: Chances are it will be made at the patrol supervison level, which would either be a sergeant or a lieutenant.

JUDGE FRYE: Someone who is back in your police headquarters?

WITNESS MICHEL: Not necessarily, no. Probably a field supervisor, yes, sir.

WITNESS McGUIRE: I just wanted to add to give you a flavor of what would be happening at that time, the

field personnel would also be responsible to call out a route for responding equipment to take.

In other words, they would know right there what roads were blocked, what roads were passable, and we would like them and encourage them to say that they need an ambulance or a fire apparatus, tell them to take such and such a road north, and then turn onto another road. That is another of their responsibilities.

JUDGE FRYE: Same thing, I believe, will be true for wreckers or any sort of equipment you would need to clear the accident.

WITNESS MCGUIRE: Wreckers not as importantly, because -- in other words, you call for a wrecker and he is on his way.

JUDGE FRYE: He is not a police wrecker, he is a commercial wrecker.

WITNESS MCGUIRE: Exactly. So, once he leaves his barn, or whatever, he is on his own, and it is not that important, usually, except maybe in the instance of the expressway to get the road cleared, but usually fire and ambulance are primary concerns.

WITNESS MICHEL: What we have done on occasion, if a very special piece of equipment is needed, such as a crane or something along that line, we will actually send police units to wherever that piece of equipment is located

1 implementing a response to an expected problem..." and the
2 answer goes on.

3 What do you mean by the term "vertical
4 hierarchy?"

5 JUDGE FRYE: Which page are you on?

6 MR. ZAHNLEUTER: 76.

7 WITNESS ROBERTS: Mr. Zahnleuter, I am
8 referencing that hierarchy, that guy who has to get the job
9 done out in that field would have to go through in order to
10 get the information and guidance in order to accomplish his
11 task. Here, this position is established and it's
12 established in the EOC. It's another level of information --
13 it's another level that information must pass through before
14 it gets to the function level.

15 BY MR. ZAHNLEUTER: (Continuing)

16 Q In responding to emergencies, does the Suffolk
17 County Police Department utilize a vertical hierarchy?

18 A (Witness Michel) I think in this issue, it goes
19 back to what we said earlier, that we try to encourage our
20 lower level people to make decisions that they are capable
21 of making and can make better than the hierarchy at their
22 level of execution.

23 And, we are talking here specifically about
24 traffic rerouting plans. People who are on the scene
25 certainly have a better idea of what's going on than we have

1 back in Headquarters. We can have the Expressway shut down
 2 for sometimes a full half hour before the Commanding Officer
 3 of Highway Patrol would even be aware that it was shut down,
 4 because the people in the field have been trained to do that
 5 job and are doing it properly.

6 And, it really doesn't need to come to the
 7 attention of Commanding Officers at a higher level. I'm not
 8 sure if that answer is responsive to your question, but
 9 that's --

10 (Witness Dormer) If I may, I would like to
 11 elaborate on that. The Police Department is structured
 12 along the same lines as the military. And, when an
 13 emergency decision has to be made, it's made at the lowest
 14 level.

15 The military makes it at the squad level. The
 16 Police Department makes it on the street, just like the
 17 squad level whether it be the police officer or the
 18 sergeant. It doesn't go up the line to the Commanding
 19 Officer and then back down again with the decision.

20 It's too cumbersome. It takes too long. There
 21 may not be time to go through that process.

22 Q Okay. Your question and answer deals with the
 23 Traffic Engineer. Would a vertical hierarchy have an affect
 24 on the ability of the Traffic Engineer to perform his or her
 25 duties under the LILCO plan?

1 A (Witness Michel) I'm not sure what you mean.

2 Q Well, the Traffic Engineer is part of the
3 vertical hierarchy; isn't that correct?

4 A Yes, I would agree.

5 Q And, would the fact that the Traffic Engineer is
6 within that vertical hierarchy have an impact on his or her
7 ability to carry out his functions effectively?

8 MR. ZEUGIN: Objection. That's a leading
9 question.

10 JUDGE FRYE: I think we will let him answer
11 that.

12 WITNESS MICHEL: I think from what we have
13 previously said, it would not have any helpful impact at all
14 to have it go through the Traffic Engineer.

15 The people who are closest to the neighborhood
16 are the people who are most likely to know what's best.

17 WITNESS MCGUIRE: And, you would be putting
18 another box into the chain of communication which would slow
19 it and compound it, depending on how much authority he had.

20 And, apparently he would have a lot and not add
21 to the -- I mean, engineers are good for drawing plans.
22 But, when we talk about on-the-spot impediments, we don't
23 feel that he would have a useful impact on the plan, and it
24 would slow down communications.

25 BY MR. ZAHNLEUTER: (Continuing)

1 something that is res adjudicata.

2 JUDGE SHON: That may be true. But I would like
3 to say, though, partly in response to the things that Mr.
4 Irwin said a few moments ago, that this Board is, of course,
5 in a difficult position with respect to certain predictions
6 made by the earlier Board, in its judgments.

7 The earlier Board did decide that certain things
8 might be possible. That a plan was a good plan, or a
9 workable plan.

10 However, the Commission has directed us
11 specifically to look at the plan and see whether, in fact,
12 the exercise shows that it works. And I would not -- I
13 think I expressed a very similar opinion a day or two ago, I
14 would not feel us bound by a decision of the previous Board
15 as to the workability as demonstrated by the exercise.

16 It is a narrow line to make, a difficult thing
17 to walk along, but we are now investigating whether in fact
18 that plan does work the way it was anticipated to work when
19 someone attempts to put it into practice.

20 MR. PIRFO: If the Staff may be heard, and then
21 I will defer to Mr. Zeugin. I am a little bit -- and I was
22 troubled by it a little bit before when you said that, Judge
23 Shon.

24 There is a case that has been decided, and
25 admittedly you were making -- the decisions made in that

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1 drills where route alert drivers covering their routes has
2 been practiced?

3 A (Witness Weismantle) Yes.

4 Q Is it fair to say that the only training drill
5 where that has been done has been in December?

6 A I don't know. As I said, on Contention 41 I'm
7 just not familiar with the details of the drills prior to
8 December.

9 Q Mr. Daverio, do you have any additional
10 knowledge?

11 A (Witness Daverio) I believe they also may have
12 been done in some of the earlier drills, Mr. Miller, in the
13 October time frame.

14 Q If it was done in earlier drills, would it be
15 reflected in the drill reports prepared by Impell?

16 A I think one of the Impell reports does reflect
17 it. I think the October 1st one does.

18 Q Let me ask you, is it fair, Mr. Daverio, to say
19 that in post-exercise training drills LERO has still
20 practiced dispatching only one route alert driver per siren
21 area?

22 MS. MONAGHAN: Judge Frye, there is an admitted
23 contention on training. And, it seems to me that it would
24 be more appropriate to review what's in the context of the
25 training drills and what the training program entails in

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1 detail in connection with that particular contention.

2 JUDGE FRYE: I agree, but I would like to get
3 the answer to that question.

4 WITNESS DAVERIO: I could be mistaken, but I
5 believe at least one staging area sent out more than one
6 route alert driver at one of those drills. I think that's
7 reflected in those reports.

8 BY MR. MILLER: (Continuing)

9 Q But, isn't it true that otherwise LERO has still
10 been practicing sending one route alert driver per siren
11 territory?

12 A In the two reports that you have, I can only
13 think of one case where they did otherwise.

14 Q I am going over to the last page of your
15 testimony, gentlemen. I want to explore these figures a
16 little bit.

17 You state that under the plan there are more
18 than enough route alert drivers assigned to the siren backup
19 to permit LERO to assign multiple drivers to a single area.

20 And, then you tell me that 16 of the 60 route
21 alert drivers are needed to provide notification to the deaf
22 leaving 44 route alert drivers to cover 89 siren routes.

23 Is that correct?

24 A (Witness Daverio) You have read what we have
25 said correctly.

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MR. MILLER: Judge Frye, I have no further questions. I would just simply -- I would like to move this document, Exhibit 20, into the record at this point.

And, I would just invite the Board's attention to other pages, Pages 22, 26, 33, 34, 37 and 38, which also address matters of route alert drivers. In those instances, only one driver was dispatched. And, given the testimony and their reliance on multiple drivers I don't see the need to cover those areas.

JUDGE FRYE: Any objections?

MS. MONAGHAN: Yes. I'm going to object to the admission of any pages other than those which he has cross examined the witnesses on.

MR. MILLER: That requires me to go through the other pages. If that's what the Board wants, I will do that.

MR. PIRFO: The Staff has no objection.

MR. ZAHNLEUTER: No objection.

JUDGE FRYE: Well, is this an internal document?

MS. MONAGHAN: Yes, it is.

JUDGE FRYE: So, you have no basis to, I would take it, question the accuracy of the figures that are given?

MS. MONAGHAN: No.

JUDGE FRYE: All right. I think we will admit

1 Q I take it then you are not talking about
2 whether, for example, they knew where the reception center
3 was located on the day of the exercise, and issues such as
4 that?

5 A I don't think that is within the scope of the
6 contention. We don't certainly touch upon it in our
7 testimony.

8 Q Mr. Weismantle, I think that it would be helpful
9 to take a very brief time to define some of the terms we are
10 going to be discussing over the next several days, and I
11 think we can go through this rapidly. I think it will be
12 productive, and the first term that I would like for you to
13 define for this Board is what is a traffic guide?

14 A A traffic guide is an individual who helps
15 facilitate the traffic strategy outlined in the plan, and is
16 available to perform other beneficial activities that fall
17 outside the preplanned traffic strategy should the occasion
18 arise.

19 Q What are some of these other beneficial
20 activities that could fall outside of the preplanned
21 activities?

22 A Determining the existence of road impediments,
23 and communicating that back to their supervisors, and then
24 to the EOC.

25 Q I take it that you think it is a valid function

1 Q And, in fact, it's your testimony, isn't it,
2 that 10 to 15 minutes after the order to evacuate, there
3 would be a substantial number of cars on the roadways?

4 A No. We estimated about 20 minutes.

5 Q About 10 minutes?

6 A About 20 minutes.

7 Q So, let me make sure that I have an
8 understanding of some definitional terms.

9 We agree, don't we, Mr. Lieberman, the order to
10 evacuate -- or, as you like to call it, the OTE -- was at
11 10:24?

12 A I think Mr. Weismantle said it was about four
13 minutes later. No?

14 (Witness Weismantle) To broadcast the message.

15 (Witness Lieberman) Okay. I stand corrected.
16 It was broadcast at 10:24.

17 Q And your definition of the evacuation process
18 for the public would begin approximately 20 minutes
19 thereafter; is that correct?

20 A That is corre ..

21 Q Or, the evacuation process would begin at 10:44
22 roughly?

23 A Approximately.

24 Q Now, Mr. Lieberman, isn't it true that it is
25 assumed in the LILCO plan the traffic guides, which are

1 Q Mr. Weismantle, would you please turn to Page 6
2 of your testimony? And, we are now going to focus on the
3 time it took the traffic guides to get to their stations in
4 the field rather than the time it took to dispatch traffic
5 guides.

6 Now, Mr. Weismantle, do you see the statement in
7 the answer to Question 7 that, "LILCO presented data
8 gathered during earlier drills on the time necessary to
9 complete the mobilization process. See PID at 719. Based
10 upon these data, the Board held that LILCO could
11 substantially complete its mobilization in about three
12 hours. PID at 723."

13 Do you see that statement?

14 A (Witness Weismantle) Yes.

15 Q Do you agree with that statement, Mr. Weismantle?

16 A Yes, I do.

17 Q Okay. Now, I take it that previously in your
18 testimony there was a sentence following that statement
19 which you have now withdrawn from your testimony; is that
20 correct?

21 A That's correct.

22 Q Mr. Weismantle, do you have an understanding of
23 how the PID defines mobilization?

24 (The witness is looking at a document.)

25 A I think on Page 716 they define it in

1 Paragraph 4.B.1.

2 Q And, what is your understanding of that
3 definition?

4 A I think it's self-explanatory when one reads it.

5 Q For the benefit of those --

6 JUDGE FRYE: For the benefit of the Board since
7 we don't have --

8 WITNESS WEISMANTLE: Oh, I'm sorry.

9 JUDGE FRYE: -- that, would you read that?

10 WITNESS WEISMANTLE: I'm sorry. Okay.

11 Mobilization is defined as the activities that take place
12 between the determination that particular off-site emergency
13 response personnel should be notified and the reporting of
14 such personnel with necessary equipment to the locations
15 where emergency functions will be performed.

16 BY MR. SUTKO: (Continuing)

17 Q And, I believe we have previously discussed that
18 on February 13 traffic guides, to use the PID's words,
19 should have been notified at the declaration of a site area
20 emergency; isn't that correct?

21 A (Witness Weismantle) No. I can't agree that
22 anybody could reasonably expect a notification to traffic
23 guides simultaneous with the decision in the EOF to declare
24 a site area emergency.

25 Q But, that's the triggering event; isn't that

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1 correct?

2 A That --

3 JUDGE FRYE: It's what?

4 MR. SUTKO: The triggering event.

5 WITNESS WEISMANTLE: That triggers the
6 notification to the EOC which then triggers the setting off
7 of the pagers which triggers the call-out.

8 BY MR. SUTKO: (Continuing)

9 Q Do you know when the EOC declared a site area
10 emergency on the day of the exercise?

11 A The EOC doesn't declare a site area emergency.
12 That's declared at the EOF by the LILCO emergency response
13 organization.

14 Q Do you know when it was announced at the EOC,
15 Mr. Weismantle?

16 A Well, at 8 -- I'm not sure when it was announced
17 or what you mean by announced, but at 8:24 a RECS message --

18 COURT REPORTER: Excuse me, Mr. Weismantle, what
19 message?

20 WITNESS WEISMANTLE: RECS, Radiological Emergency
21 Communications System, message started to be transmitted to
22 the EOC and to the other points on the RECS system.

23 BY MR. SUTKO: (Continuing)

24 Q Mr. Weismantle, what is your understanding based
25 upon the definition of mobilization in the PID as to when

1 mobilizations for traffic guides would be completed?

2 A When they are at their locations in the field, at
3 their traffic posts or traffic control points.

4 Q And, it's your testimony on Page 6 that that
5 should have been substantially completed in three hours; is
6 that correct?

7 A I'm quoting from the PID on Page 6.

8 Q But you agree with that conclusion?

9 A I agree with that statement, that it could be
10 substantially complete in about three hours.

11 Q Okay. Do you have a copy of the FEMA report,
12 Mr. Weismantle?

13 A The post-exercise assessment?

14 Q That's correct.

15 A Is that what you are talking about?

16 Q That's what I'm talking about.

17 A I believe so.

18 Q Would you please look at Page 25? Do you see
19 there a table which is marked Table 1.1 and which is
20 entitled "Emergency Classification Time Line?"

21 A Yes.

22 Q And, do you see an emergency classification
23 titled "Site Area Emergency Notification?"

24 A Yes.

25 Q Do you see another heading which is entitled

1 phrase the question is, is it a linear process.

2 JUDGE PARIS: Yes.

3 WITNESS LIEBERMAN: Yeah. I think it's pretty
4 close to linear. And the reason I say that is the
5 following. It alludes back to something I said earlier.

6 Whether you have one-lane outbound or two-lane
7 outbound, you are going to be moving traffic at capacity.
8 And, that traffic will be moving at capacity levels
9 throughout the evacuation. And, therefore, on that basis I
10 think it's sufficiently close to linear to apply this
11 proportionality.

12 If there were fluctuations in demand, let's say
13 that the demand fell off below capacity --

14 JUDGE PARIS: If the traffic guides had gotten
15 there 45 minutes earlier, how would they have affected --
16 or, how would they have achieved the shorter evacuation
17 time?

18 WITNESS LIEBERMAN: They would have doubled
19 capacity along that route.

20 JUDGE PARIS: So, they would have increased
21 capacity?

22 WITNESS LIEBERMAN: Right.

23 JUDGE PARIS: The proportionality or linear
24 relationship bothers me because intuitively it seems to me --
25 and you are the traffic expert and tell me whether my

1 intuition is correct or not, from observing traffic at
2 capacity service levels, that if you have an accident early
3 on in a commute hour and so you get the capacity reduced and
4 the traffic level reaches service level F, then long after
5 that accident is removed it remains at service level F --

6 WITNESS LIEBERMAN: Yes, that's known as a
7 historicist effect. And, I could describe it to you. It's
8 going to take some time. I'm willing to do it. As a matter
9 of fact --

10 JUDGE PARIS: Is that linear?

11 WITNESS LIEBERMAN: In terms of throughput, yes.

12 JUDGE PARIS: In terms of what?

13 WITNESS LIEBERMAN: Throughput.

14 JUDGE PARIS: Throughput?

15 WITNESS LIEBERMAN: Throughput. In other words,
16 the number of vehicles that get through that bottleneck, the
17 answer is yes.

18 In terms of delay, no. It's quadratic.

19 JUDGE PARIS: Okay.

20 WITNESS LIEBERMAN: Close to quadratic.

21 JUDGE PARIS: Well, here you are calculating
22 total evacuation time. That involves delay, doesn't it?

23 WITNESS LIEBERMAN: Only from the point of view
24 of -- yes. From the point of view of individual vehicles,
25 their delay will increase considerably.

1 JUDGE PARIS: Isn't that what is important as
2 far as exposure is concerned if you are in a plume?

3 WITNESS LIEBERMAN: The only thing that matters
4 is what their dwell time is within the EPZ. And, what you
5 are asking is how fast can you get these guys out of there.
6 And that's the measure of capacity.

7 What we are looking at is the aggregate effect
8 as opposed to the delay experienced by individuals. I know
9 it seems kind of intuitive but the aggregate effect is a
10 function of how quickly you can move people out of an area.
11 That's all we are interested in here.

12 And, what I'm saying is that linearity does
13 apply when you are looking at throughput or productivity of
14 the system. And, rather than looking at the delay
15 experienced by an individual.

16 JUDGE PARIS: But, if I'm sitting in a queue
17 because of that accident that occurred an hour and a half
18 ago and has long since been cleared, I'm suffering from
19 quadratic effect, right?

20 WITNESS LIEBERMAN: Well, you are also suffering
21 from an important difference between an evacuation scenario
22 and a situation that you have just described of normal
23 traffic conditions. In an evacuation scenario, you have a
24 certain number of cars you want to get out of here. No more
25 are being added.

1 In the real world, the normal conditions, when
2 you come along an hour and a half later you have added to
3 the demand at that section. And, that's why you still
4 experience the effects of the earlier congestion.

5 JUDGE PARIS: Well, is that all that different
6 from what you expect to occur in an evacuation? Everybody
7 is not going to get out on the highway at the same time.

8 WITNESS LIEBERMAN: That's correct, but at the
9 end of three hours or so, they will be queued up trying to
10 get out.

11 The thing that you can't lose sight of is how
12 much longer is it going to take that traffic flow from
13 getting passed that section of highway. And, it works out
14 to be about linearity.

15 Let me explain why. Let's use round numbers so
16 we can talk intelligently. Suppose you have a roadway with,
17 say, 2,000 vehicles per hour capacity and you have a demand
18 of 8,000 vehicles and no more are waiting. You have a total
19 demand of 8,000 vehicles awaiting service.

20 And if all these vehicles flow at 2,000 vehicles
21 per hour, those 8,000 vehicles will get out in four hours.

22 JUDGE PARIS: Okay.

23 WITNESS LIEBERMAN: Okay. Now, let's say that
24 for whatever reason capacity is reduced to 1,000 vehicles
25 per hour for the first hour and then increases to 2,000

1 vehicles per hour subsequently. You can see the parallel
2 I'm drawing here.

3 Instead of having two lanes when congestion
4 developed, we had only one lane for something less than 49
5 minutes. I'm rounding it up to an hour so we don't have to
6 work with fractions. Okay.

7 JUDGE PARIS: So, at the end of the first hour
8 you will have gotten out 1,000 and you will still have 7,000
9 vehicles that need to get out?

10 WITNESS LIEBERMAN: Right. And, at the 2,000
11 vehicle per hour rate, you are going to get these 7,000 out
12 in three and a half hours.

13 So, the total time to get them all out is now
14 four and a half hours which is in the neighborhood of 20
15 percent of the four hours, actually less.

16 JUDGE PARIS: Okay. But, I still don't see that
17 you have demonstrated the linear relationship.

18 WITNESS LIEBERMAN: I have two points. I have
19 one point where I have five hours -- I'm sorry, it's four
20 hours after congestion sets in and another point where I
21 have five and a half hours under no traffic guides. And, I
22 have a certain delay.

23 So, I have only two points. I can only draw one
24 kind of line through them unless I have some other
25 information. And the reason it's linear is because -- the

1 reason it's close to linear, if you worked out the example I
2 just gave you, you will find that that point of four and a
3 half hours lies on a line collecting the two extremes very
4 close to a straight line.

5 JUDGE PARIS: Okay. But, you say the waiting
6 time increases as quadratic?

7 WITNESS LIEBERMAN: Yeah. If you look at the
8 queuing theory, that's what happens. But, the important
9 thing is to recognize that even though you have half the
10 capacity over one quarter of the time, the net effect is
11 only half an hour longer.

12 I can draw it up for you tomorrow morning.
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1 JUDGE SHON: You said I think you had the half
2 the capacity over a quarter of the time and it lengthened
3 the time from four to four and a half hours, which is one-
4 eighth, which is a half of a quarter. That demonstrates the
5 linearity for the rather stylized and square way sort of
6 evacuation that you've postulated.

7 MR. LIEBERMAN: Right.

8 JUDGE SHON: I think that is what you were
9 driving at.

10 MR. LIEBERMAN: Exactly.

11 JUDGE PARIS: Then, Mr. Lieberman, I will think
12 over my lesson tonight and come back with some more
13 questions tomorrow.

14 JUDGE SHON: I'm still a little disturbed by the
15 fact that in a sense the traffic flow is sort of a fluid
16 flow. It's a fluid of with a rather peculiar equation to
17 state, but these things are often non-linear and I see non-
18 linearities possible.

19 For example, intuitively, and I think Dr. Paris
20 felt this way also, there is a feeling that once a jam fixes
21 it's hard to unfix, and I think much of Mr. Sutko's
22 questioning has driven toward this, too, that having
23 somebody there early on may well prevent it happening.

24 I think it's your position that that just
25 doesn't happen; is that right?

1 MR. LIEBERMAN: Not when the traffic environment
2 is congested anyway.

3 JUDGE SHON: I can think of other non-
4 linearities. For example, on a hot day if traffic once
5 stalls, a lot of people are going to have their engines
6 overheat and they will stall and take additional lines of
7 traffic out of action. So that if you had kept it moving
8 early on, why they would never have stalled and you would
9 never would have lost the additional capacity.

10 That would introduce surely a non-linear factor
11 into your equations, would it not?

12 MR. LIEBERMAN: Well, you're bringing in other
13 elements of course. Essentially what you're doing is
14 postulating a chain reaction type of response which
15 exacerbates the situation.

16 What I'm saying is that you have congestion
17 anyway. The extent of the delay in this example of a half
18 hour, and here I think it's 19 minutes, is small relative to
19 the total time it takes to evacuate the area anyway. So I
20 question whether that chain reaction will actually take
21 place given the extent of the additional delay.

22 JUDGE SHON: Chain reactions are notably non-
23 linear.

24 MR. LIEBERMAN: Absolutely.

25 JUDGE PARIS: Is mathematical modeling of

1 traffic raised essentially on linear models?

2 MR. LIEBERMAN: No. The modeling is actually
3 non-linear. That's why I mentioned earlier that on an
4 individual basis you don't use linearity. But in this
5 situation, as I've described, the linear behavior does
6 apply.

7 Again, we are focusing on throughput and not on
8 individual delay.

9 If you would like, I can elaborate on it.

10 JUDGE PARIS: Well, what I'm pondering is if
11 delay means that I'm sitting in the traffic under a
12 radioactive plume, are we focusing on the right concern in
13 calculating just throughput?

14 MR. LIEBERMAN: But you can't infer from the
15 throughput argument how much longer they are going to stay,
16 which is what we did. In the example it was a half hour
17 here. It works out that because it's less than one out
18 four, it works out to be about 20 minutes, and that's really
19 the concern of course.

20 JUDGE PARIS: But that's not my delay, is it?
21 My time is increasing quite radically, isn't it?

22 MR. LIEBERMAN: When I say that the increase in
23 delay is quadratic I mean if you draw delay as a function of
24 V over C , where V is demand and C is capacity, within the
25 range of close to zero to unity, that curve is quadratic.

1 Once you get to V over C of unity, which means
2 that demand is equal to or greater than capacity, then that
3 curve becomes linear.

4 JUDGE PARIS: Are you looking at the total
5 traffic picture when you're talking about that delay or I
6 thought you said earlier for the individual.

7 MR. LIEBERMAN: Well, for the individual.

8 JUDGE PARIS: Okay.

9 MR. LIEBERMAN: But the linearity holds once
10 you're in that level of service "f".

11 JUDGE SHON: I'm still a little bothered by
12 this. I hate to interrupt your cross-examining any further,
13 but now we have trend upon something that did not permit Mr.
14 Sutko to examine a while ago that I would like to examine a
15 little bit further, and it is the nature and the shape of
16 the depletion curve inside the zone.

17 I think I'm going to have to go over to that
18 blackboard.

19 (Judge Shon proceeds to the easel to draw.)

20 I certainly think I can ask Board questions.

21 (Laughter.)

22 This is not cross-examination because it is
23 clearly not antagonistic or adversarial. All right?

24 JUDGE PARIS: Are you testifying?

25 (Laughter.)

1 JUDGE SHON: No, I'm asking questions.

2 I going to draw curves of the sort that Mr.
3 Sutko tried to introduce, but they are going to be different
4 ones, and I think you will agree with me when we get through
5 they have several different characteristics and, first, they
6 are going to be inverted. They are going to show people
7 remaining and not people that have gotten out.

8 And, secondly, they are going to be drawn in a
9 way that I think you and I earlier agreed makes them look
10 like more sensible curves, that is curves that one would
11 expect from this kind of calculation.

12 Here are the axes, and these are percent
13 remaining, and here is time, and I'm not going to give you
14 hours or anything like that.

15 I can visualize a curve that goes, let's see,
16 like this, one like this and one say like this.

17 They all have essentially the same total
18 evacuation time.

19 MR. LIEBERMAN: Okay, except that the top curves
20 imply that there is no movement for some substantial amount
21 of time.

22 JUDGE SHON: Well, I could drop it faster. This
23 is a rough sketch. I've exaggerated certain things.

24 Now I put it to you that it may be, and I don't
25 know whether it is or not ---

1 JUDGE FRYE: Can I interrupt for a second. I
2 think you're blocking the view.

3 JUDGE SHON: I put it to you that it may be
4 that, and I don't know whether it is or not true, that the
5 difference between this curve say and one of these that is
6 shaped more like that, although it is very small in total
7 evacuation time, that these curves may well represent the
8 case where the traffic guides get their early and hence the
9 high slope occurs early, and the case where the traffic
10 guides get there late and hence the high slope occurs late.

11 Now it also occurs to me that if I call this
12 thing Phi, the total population does, and are you familiar
13 with the term?

14 JUDGE PARIS: What is Phi?

15 JUDGE SHON: That's this function. It just this
16 thing.

17 JUDGE PARIS: Okay, fine.

18 JUDGE SHON: The total population does will at
19 least in some measure look like the integral of \dot{S} with
20 respect to time, and that's the area under the curve, and
21 the population does is what we're trying to conserve or keep
22 to a minimum. And it's clear here that although the total
23 evacuation time is very nearly identical and very close to
24 the same for all three of these curves, the total population
25 dose clearly isn't. You've got a lot more population does

1 in the curve that we identified as being the one where the
2 traffic guides arrive late.

3 Is this not the kind of thing you were driving
4 at, Mr. Sutko?

5 MR. SUTKO: I did ask ask what the precise
6 indications showed.

7 JUDGE SHON: Well, that's why I said it. It
8 itched at me a bit that we had not let you pursue this line
9 of questioning when I suddenly realized that it might be
10 pertinent.

11 What have you to say to that analysis?

12 MR. LIEBERMAN: Okay. I'm going to walk up to
13 the easel.

14 JUDGE PARIS: What did you say?

15 MR. LIEBERMAN: That I'm going to walk up to the
16 easel.

17 (Witness Lieberman proceeds to the easel.)

18 To start with, you realize what the slope of the
19 curve represents. It represents the rate of flow out of the
20 area.

21 JUDGE SHON: Right, and that's why I
22 characterized the ones that had the late steep slope as
23 being the ones where the guides got there late assuming that
24 they in some way steepen the slope or increase the rate
25 which is what they are to do as I understand it?

1 MR. LIEBERMAN: Right. Let me draw the green
2 curve in a manner which more closely represents what's
3 taking place at Shoreham.

4 You will recall that when Mr. Sutko questioned
5 me about those links which became congested early, several
6 of them were on that path or downstream of that path. So
7 under that situation given that the traffic guides are out
8 there, you would have a curve ---

9 JUDGE PARIS: Given that they are out there?

10 MR. LIEBERMAN: That they are out there, you
11 would have a curve that starts off at a rather shallow slope
12 representing the fact that you are undersaturated and you
13 have relatively few people hitting the road, then that slope
14 will increase and will obtain a constant rate. In other
15 words, they are flowing at capacity.

16 So what we are going to see here now for that
17 particular path is a curve that looks like that rather than
18 the one which showed as gradually increasing its rate to its
19 steepest part for only a small portion of the time frame.
20 That's an important distinction.

21 So I'm going to draw that, and then the
22 stragglers are going to cause this thing to shallow and you
23 are going to have something that looks like that. The only
24 reason I'm showing it with a shorter time is to make the
25 curves distinct.

1 So let us say that this point now is 4:55. Now
 2 what we actually had happen during the exercise is some
 3 lateness on the part of the traffic guides to get out there,
 4 and let us say again for the sake of discussion that this is
 5 the point where this is our one-hour period when congestion
 6 developed and corresponds to the steepest slope where
 7 traffic is running at capacity. So we'll call this one
 8 hour.

9 And now let's draw the line 49 minutes later and
 10 carry it up. Now during that period of time between 1 and
 11 49 when the guides were not out there, the curve actually
 12 would have looked like this. It would have had a shallower
 13 slope representing the one lane capacity instead of the two-
 14 lane capacity. At this point the two-lane capacity is
 15 established. What happens to the slope?

16 The slope from this point is now going to be the
 17 same as the slope here, is it not? So what we get is a
 18 curve that is actually going to be a discontinuous curve
 19 because the slopes change abruptly as you go from one lane
 20 to two lanes.

21 The demand is always there. There is no
 22 starving of this section of highway. So now we are going to
 23 get a curve that looks like this.

24 Now at this point the original curves started to
 25 have a shallower slope because of the stragglers. Because

1 of the fact that there is some lateness on the part of the
2 traffic guides getting there, the inventory of demand at
3 this point in time is higher for the red curve than for the
4 green curve because you've serviced that many fewer
5 evacuees.

6
7 So this slope is going to stay steep for a
8 longer period of time and then is going to flatten out and
9 it's going to look like that. And going through the
10 calculations we made before we found that this is about 20
11 minutes or 19 minutes.

12 Now the difference between that I have drawn and
13 what you have drawn doesn't differ conceptually, but differs
14 in extent. Your upper curve shows a much greater lag before
15 something happens before the slopes increase in magnitude,
16 and also your curve shows a steeper slope than is possible by
17 virtue of the capacity limitations of the road.

18 You see, whatever the effect is, you can't have
19 a steeper slope than this. That's the best you can do when
20 you open up that road to two lanes. The curve that you drew
21 has a steeper slope which is impossible.

22 JUDGE SHON: I recognize that there are
23 peculiarities about the parameters governing these curves
24 and about their shapes at various points. I was drawing
25 something freehand and merely meant to illustrate.

I think I did illustrate and I think you have

1 illustrated that clearly with the traffic guides arriving
2 late there is a greater integral and a greater total dose
3 potential under the curve and that it is not necessarily, or
4 at least I don't think it is necessarily measured by the
5 small difference in the zero intercept.

6 That is, it's not clear to me that the
7 difference between two curves integrals is related directly
8 or is proportional to or is linear in the difference in
9 their "X" intercepts.

10 JUDGE PARIS: We need to compare the area under
11 the red curve with the area under the green curve.

12 JUDGE SHON: And either your interpretation or
13 indeed mine might be a gross distortion. I merely meant to
14 show the direction in which it tends and yours tends in that
15 same direction and it's hard to see what the difference is
16 quantitatively. The differences are quantitative and not
17 qualitative.

18 MR. LIEBERMAN: Right. Yes, there is no
19 question if you multiply this additional time by people
20 you're going to get an area, and that's essentially what
21 I've drawn here.

22 JUDGE SHON: Roughly if the dose rate were taken
23 to be identical throughout the zone in time and sub-zero at
24 the end of the zone, another sort of step function like the
25 sort that you've been generating, if the dose rate were

1 linear, and perhaps I'm testifying now and I don't mean to,
2 I believe the total number of person rem would be roughly
3 proportional to the integral under that curve.

4 That may not be true if someone wants to bring
5 in an expert in health physics to analyze it, but roughly
6 what we're trying to minimize is person rem, and I think
7 that's measured by the integral.

8 Do you agree that that seems reasonable?

9 MR. LIEBERMAN: The shaded area that's shown
10 there is some relation to potential exposure and whether in
11 fact this is a preemptive evacuation or not.

12 JUDGE SHON: And the important part about it is
13 that that shaded area, the difference in the areas under the
14 two curves may be a better measure of the success or lack
15 thereof of the guides system when the guides are delayed, a
16 better measure, so to speak, of the shortcoming due to guide
17 delay than simply the difference in time represented by the
18 intercepts of the two curves where the two curves hit zero.

19 MR. LIEBERMAN: Well, the difference -- you have
20 a given population in both cases.

21 JUDGE PARIS: You have a what?

22 MR. LIEBERMAN: You have a given population in
23 both cases. It's the same population regardless of when the
24 guides arrive. So if you take the time difference and
25 multiply by that population you're going to get very close

1 to what that shaded area represents.

2 So know that the population is the same in
3 either case, you therefore focus our attention on the
4 variable which is time.

5 JUDGE SHON: Yes, but I'm sure that just the
6 fractional difference in the two intercepts and the time
7 that it takes for all of them to get out is anywhere near a
8 measure of that integral which is the integrated exposure of
9 all of the people inside the zone.

10 MR. LIEBERMAN: I think it is because the two
11 curves are parallel to one another throughout most of the
12 time range. There are some differences at the top and some
13 at the bottom, but effectively what you have there is
14 something very close to a rectangle.

15 JUDGE SHON: That may be, but it's not obvious
16 quantitatively from this seat over here.

17 JUDGE PARIS: Take it from there, Mr. Sutko.

18 (Laughter.)

19 MR. SUTKO: Thank you, Judge Paris.

20 With the Board's permission, I think it would be
21 appropriate to mark this chart as an exhibit for purposes of
22 clarity of the record and I would like to make it and move
23 it into evidence, Judge Frye?
24
25

1 Q And I take it, Mr. Weismantle, then that you
2 believe these fixes we have discuss substantially solve your
3 mobilization problems as you experienced them on February
4 13th, 1986, correct?

5 A (Witness Weismantle) Well, they will improve
6 the mobilization time.

7 MR. SUTKO: I would like to have marked as
8 Suffolk County Exercise Exhibit 36 portions of a December
9 2nd and December 10, 1986 LERO drill report.

10 (The document referred to is marked
11 as Suffolk County Exercise Exhibit
12 Number 35 for identification.)

13 BY MR. SUTKO: (Continuing)

14 Q If you are familiar with this document, Mr.
15 Weismantle, we may be able to short-circuit the questions.
16 So, I ask you to please review it.

17 A The whole document?

18 MR. ZEUGIN: I guess I need a point of
19 clarification. I'm not aware that there was an Exercise
20 Exhibit 35. Maybe I lost track.

21 MR. SUTKO: It is 35. I'm sorry.

22 BY MR. SUTKO: (Continuing)

23 Q And, Exercise Exhibit 35 represents portions of
24 the December 2nd and December 10th drill that deal with
25 traffic guides, Mr. Weismantle.

1 Are you familiar with this document?

2 A Well, what you have given me is not the complete
3 document. You have given me the cover page, or the first
4 page, and you have given me other pages. I would have to
5 review the whole document before I could agree that
6 necessarily these pages were from that document.

7 Q Okay. Here is the entire document for your
8 review, Mr. Weismantle. Now, please keep the Exhibit 35 as
9 well, Mr. Weismantle, because we are going to be referring
10 to it.

11 JUDGE PARIS: We need you to verify for us that
12 these pages are from the document, the pages on the exhibit.

13 WITNESS WEISMANTLE: Okay.

14 (The witness is looking at the documents.)

15 WITNESS WEISMANTLE: Okay.

16 BY MR. SUTKO: (Continuing)

17 Q Mr. Weismantle, does that Exhibit 35 represent
18 portions of the December 2nd and December 10th drill reports
19 which is dated March 4, 1987?

20 A Yes.

21 Q Okay. And, in fact, two full-scale LILCO drills
22 were held in December of 1986; isn't that correct?

23 A Well, they were -- the scope of the drill was
24 described on the first page.

25 Q That's fine.

1 A Not full-scale, you know, meaning everything was
2 exercised or all field workers reported.

3 Q And, one of the areas that was drilled, both on
4 December 2nd and December 10th, was mobilization of traffic
5 guides; isn't that correct?

6 A Yeah.

7 Q And, you mobilized from all three staging areas
8 on the 2nd, and then you mobilized from all three staging
9 areas on the 10th; isn't that correct?

10 A I think that's correct.

11 Q And, the people you mobilized on both days were,
12 according to the next to the last paragraph on Page 1 of the
13 document, pre-staged; is that correct?

14 A Yeah, they were pre-staged. That is, told to
15 report to their staging areas or to their work locations at
16 a preassigned time, then called out by the pager system and
17 phone system.

18 Q And, before the exercise actually took place
19 they were briefed on procedure changes and were reinforced
20 about earlier training on CPIP revisions; isn't that
21 correct?

22 A I can't remember if that was just on the 2nd or
23 if it was on both days.

24 Q It may refresh your recollection that the first
25 sentence of this page appears to apply to both December 2nd

1 and December 10th, doesn't it?

2 MR. ZEUGIN: Judge Frye, I'm not sure that I
3 believe that Mr. Sutko has ever gotten an answer to the
4 first question he asked Mr. Weismantle which makes it kind
5 of hard for me to see whether this line of questioning is
6 even fruitful at this point, which is Mr. Weismantle's
7 familiarity with all of these documents.

8 I myself remember from Contention EX-41 Mr.
9 Weismantle basically saying that he no longer was really
10 involved in the training program at LERO. He may have been
11 a participant in these two drills. I'm not sure he is going
12 to be the person to ask questions about later performance.

13 I know it's covered in the training testimony,
14 but just because Mr. Weismantle is a member of that panel
15 doesn't mean that he is sponsoring testimony on these
16 issues.

17 I frankly know it is covered in the Contention
18 50 testimony that LILCO has filed. I fear that we are going
19 to go over duplicative matters here with perhaps a witness
20 not best qualified to answer questions about this document.

21 JUDGE FRYE: Let's find out if the witness is
22 qualified.

23 MR. SUTKO: In fact, I believe he is sponsored
24 on those portions of Contention EX-50 testimony. But, we
25 are going to get the testimony, Judge Frye.

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1 JUDGE FRYE: Ask him if he is qualified on this
2 particular document.

3 MR. SUTKO: Okay.

4 BY MR. SUTKO: (Continuing)

5 Q You are familiar with this document, aren't you,
6 Mr. Weismantle?

7 A I'm generally familiar with the document, yes.

8 Q Okay. Thank you, Mr. Weismantle. Now, going
9 back to the pending question that I have before you, it
10 appears from the first sentence, does it not, that this
11 background material on Page 1 applied to both the December
12 2nd and the December 10th drills?

13 JUDGE FRYE: Let me interrupt. Mr. Weismantle,
14 were you involved in the December 2nd and December 10th
15 drills?

16 WITNESS WEISMANTLE: Yes. I was involved in
17 both of them.

18 JUDGE FRYE: All right.

19 WITNESS WEISMANTLE: Well, you are referring to
20 the first sentence under background?

21 BY MR. SUTKO: (Continuing)

22 Q Yes, sir.

23 A Yeah, this document covers both those drills.
24 That isn't to say that every word in the document covers
25 both drills, though.

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1 Q No, but that's not my question, Mr. Weismantle.
2 I'm sorry.

3 My question is, doesn't this background material
4 apply to both the December 2nd and the December 10th drill?

5 A In general, but you have to read it at a
6 particular sentence to determine whether it applies to both
7 or not. I mean, there are certain distinctions made between
8 the two drills.

9 Q Referring to the next to last paragraph on Page
10 1 of the exhibit, it's true, isn't it, that LERO members
11 were pre-staged both on December 2nd and December 10th?

12 A That's correct.

13 Q And, that means that they were not, for example,
14 at their home in Queens and called out to report to the
15 staging area; isn't that correct?

16 A It means they reported to the staging area no
17 matter where they lived or where they worked, the normal
18 work location was. They weren't called out by a pager or a
19 telephone.

20 Q And the drill began when they got to the staging
21 area, correct?

22 A The drill began when the Controller started the
23 drill.

24 Q And, the Controllers are to start the drill
25 under pre-staging, Mr. Weismantle, when people get to the

1 drill, correct, sir?

2 A No. They start it when their instructions say
3 they should start it. I mean, maybe not everybody was
4 there.

5 Q Okay. What does pre-staging mean, Mr.
6 Weismantle?

7 A In this context, as pre-staging is used in
8 different ways in the plan, such as pre-staging of buses, it
9 simply means what it says. They went to their LERO work
10 locations on -- at a preassigned time. They were asked to
11 report -- I don't remember if it was 8 or 8:30 or 9
12 o'clock. And I think it made a difference as to what their
13 LERO work location was, as a matter of fact. But, rather
14 than go about their normal business and be called out either
15 by pager or by telephone. That's what it means.

16 Q Okay. So, that if the drill was to start at 8
17 for a field worker, the field worker was told to be at his
18 preassigned location at 8 o'clock; is that a fair statement?

19 A That's right --

20 Q Okay.

21 A -- in that hypothetical case.

22 Q Okay. Now, Mr. Weismantle, it's true, isn't it,
23 that there were six mobilizations over the two drills, two
24 for each of the three staging areas?

25 A I would have to refresh my memory. There may

1 have been changes in protective action during the drill, in
2 which case --

3 Q Okay.

4 A -- there was a part for mobilization at one
5 point, and the balance might have been mobilized at a
6 different point.

7 Q Let's take them one at a time now, Mr.
8 Weismantle. Would you please turn to Page 19 of the
9 exhibit?

10 This discusses the December 2nd mobilization of
11 traffic guides at the Port Jefferson staging area. And, it
12 states that six traffic guides were preassigned; isn't that
13 correct?

14 MR. ZEUGIN: Judge Frye, again I guess I will
15 renew my objection to this whole line of questioning. I
16 think it is going to prove wastefully duplicative of later
17 testimony on Contention 50.

18 LILCO has addressed it there. To the extent
19 that Mr. Weismantle may or may not be sponsoring it, he can
20 clearly address it with the panel that has been designated
21 by LILCO to discuss post-exercise training.

22 I just don't see why we should waste --

23 JUDGE FRYE: Why is this relevant now?

24 MR. SUTKO: Because in their testimony, they
25 claim that the fix of preassigning has solved, or at least

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1 helped solve, their mobilization problems. In five of the
2 six drills that were done on December 2nd and December 10th,
3 they didn't get all the people out within the one hour which
4 is their self-established goal.

5 My questioning will be limited. It will be
6 directed solely to the fix, and it's similar to what we've
7 done in Contention 41 and 34, and it will not be repeated in
8 this type of detail in any other contention.

9 JUDGE FRYE: Where are you referring to -- to
10 what portion of their testimony are you referring when you
11 say --

12 MR. SUTKO: I'm referring to the entire answer
13 to Question 17, but particularly to the first full paragraph
14 on Page 20 where they discuss preassignment. And, in fact,
15 in December they preassigned six times and five times they
16 failed.

17 MR. ZEUGIN: Judge Frye, I would merely note
18 that in relation to earlier litigation on Contention 41, the
19 Board correctly noted that findings will be based on the
20 entire record in this proceeding.

21 Certainly to the extent the fixes may or may not
22 have resulted in faster mobilization times is an area that
23 will be explored in the context of Contention EX-50 with the
24 panel there that was designated by LILCO to discuss that
25 topic. I just don't see the benefit of going over those

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1 issues now when we are going to go over them again, I'm
2 sure, in great detail later with the panel that was assigned
3 to discuss this.

4 JUDGE FRYE: I don't think that -- certainly, we
5 won't go over it twice. But, I do think it's relevant to
6 this testimony, as Mr. Sutko has pointed out.

7 MR. SUTKO: I will try and keep it very short,
8 Judge Frye.

9 JUDGE FRYE: So, overruled.

10 BY MR. SUTKO: (Continuing)

11 Q It's true, isn't it, Mr. Weismantle, that on
12 December 2nd not all of the preassigned traffic guides from
13 Port Jefferson were at their posts an hour after the public
14 was notified of the order to evacuate?

15 A I think what's indicated is that three were
16 there within an hour and the other two were there three
17 minutes later.

18 Q It's true, isn't it --

19 JUDGE FRYE: How many minutes later?

20 WITNESS WEISMANTLE: Three minutes.

21 JUDGE FRYE: Three minutes later?

22 BY MR. SUTKO: (Continuing)

23 Q So, it's true then that all were there within an
24 hour, correct, Mr. Weismantle?

25 A It's true that three were there within an hour

1 and two more three minutes later.

2 Q Thank you, Mr. Weismantle. Would you please
3 turn to the Patchogue staging area, December 2nd
4 mobilization of traffic guides, which is found on Page 23
5 and 24?

6 And, in fact, not all traffic guides that were
7 preassigned from the Patchogue staging area were at their
8 stations within an hour after an order to evacuate was
9 broadcast to the public, were they?

10 (The witness is looking at a document.)

11 A Well, it looks like they also were all there
12 within 63 minutes.

13 Q So, they weren't there within an hour, correct,
14 Mr. Weismantle?

15 A Evidently not all of them.

16 Q Would you please turn to Page 27 where we
17 discuss mobilization at Riverhead on December 2nd?

18 And, it's also true for Riverhead, isn't it,
19 that some traffic control posts were not manned within one
20 hour of the time the EBS message was aired?

21 (The witness is looking at a document.)

22 A Well, the wording is a little confusing here but
23 it appears as though they were all manned within an hour and
24 15 minutes, the 26 posts in question.

25 Q I believe for the remainder of this line of

1 questioning, you can simply answer with a yes or no, Mr.
2 Weismantle.

3 It's true, isn't it, Mr. Weismantle, some
4 traffic control posts for Riverhead in the December 2nd
5 drill were not manned within one hour of the time the EBS
6 message was aired with an order to evacuate; isn't that
7 correct?

8 A I think I've answered the question.

9 JUDGE FRYE: It's a yes or no. I think you said
10 yes.

11 WITNESS WEISMANTLE: Yes, that's true.

12 MR. SUTKO: Thank you, Mr. Weismantle.

13 BY MR. SUTKO: (Continuing)

14 Q Now, would you please turn to Page 32 which
15 discusses the mobilization of traffic guides at Port
16 Jefferson on December 10th.

17 JUDGE FRYE: I think you misspoke. Isn't that
18 Patchogue?

19 MR. SUTKO: I'm sorry. Well, actually I'm
20 sorry. If you turn to Page 29 you will note at the top it
21 begins discussing --

22 JUDGE FRYE: Oh, I see.

23 MR. SUTKO: -- Port Jefferson and then the
24 reference at the top of Page 32 is to mobilization of
25 traffic guides at Port Jefferson.

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BY MR. SUTKO: (Continuing)

Q And, in fact, on December 10th all traffic guides were mobilized within one hour from pre-staging at Port Jefferson; isn't that correct, Mr. Weismantle?

A Yeah, that's right. It looks like about 49 minutes.

Q Would you please refer to Page 35 of the drill report which discusses mobilization of traffic guides at the Patchogue staging area on December 10th.

And, it's true, isn't it, Mr. Weismantle, that not all preassigned critical traffic guides were at their posts within one hour after an order to evacuate was broadcast to the public?

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2 A (Witness Weismantle) This indicates all except
3 one were within one hour, although it looks like maybe one
4 or more was like 64 minutes. There was one that didn't
5 arrive until about an hour and 15 minutes later.

6 Q So, they all didn't make it?

7 A They all didn't make it.

8 Q Now, would you please turn to Page 39 and 40 of
9 the drill report which discusses mobilization of Riverhead
10 traffic guides on December 10th? And, it's true for them as
11 well that not all Riverhead traffic guides were mobilized
12 within one hour after an order to evacuate was issued to the
13 public.

14 (The witness is looking at the document.)

15 A It appears that's correct. It appears they all
16 arrived by 77 minutes.

17 Q Now, the data that we have just been discussing,
18 Mr. Weismantle, informs us only about preassigned traffic
19 guides; isn't that correct?

20 A That's right.

21 Q It doesn't discuss how long it took other
22 traffic guides, does it?

23 A That's correct.

24 Q And the preassigned traffic guides would have
25 been the critical traffic guides that's marked on Page 11 of
your testimony; is that correct?

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(The witness is looking at the document.)

A No, not necessarily. I would like to confer with Mr. Lieberman though before I answer that.

Q That's fine.

(Mr. Weismantle and Mr. Lieberman are conferring.)

A You are correct. It doesn't include all of them that are listed on Page 11.

Q It does or does not?

A Does not.

Q It includes some subset of those that are listed on Page 11, is that correct?

A Yeah. The -- well, that's correct.

Q Why is it that not all of the criticals were preassigned on December 2nd and December 10th?

Perhaps Mr. Lieberman can address that rather than you.

A (Witness Lieberman) Because they may not all be necessary. It depends upon the accident scenario.

Q Thank you, Mr. Lieberman. Mr. Weismantle, I believe over lunch you are going to look for Node 6 that relates to TCP 74; is that correct?

A (Witness Weismantle) Well, somebody was asked during the break to look for it. So, it's being, or has been, looked for. If it's available, we will bring it back

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1 with us.

2
3 MR. SUTKO: Thank you. Judge Frye, at this time
4 I would like to move Suffolk County Exercise Exhibit 35 into
5 evidence.

6 JUDGE FRYE: Any objections?

7 MR. ZAHNLEUTER: No objection.

8 MR. PIRFO: The Staff has none.

9 MR. ZEUGIN: I guess my only question is, I
10 believe all of these drill reports were attached to the
11 Suffolk County testimony on the training issues. I think we
12 may be including this entire report.

13 I don't know why we want to now admit select
14 pages.

15 JUDGE FRYE: Yeah, but he has questioned on
16 these pages. I think it would be helpful to have it in the
17 record at this point.

18 MR. ZEUGIN: Fine. No objection.

19 JUDGE FRYE: So, it will be admitted.

20 (The document previously marked as
21 Suffolk County Exercise Exhibit
22 Number 35 for identification is
23 admitted into evidence.)

24 MR. SUTKO: Judge Frye, I really only have one
25 other thing for these witnesses. I first want to thank Mr.
Lieberman and Mr. Weismantle for providing their time.

1
2 But, I think as we have done before, we have
3 asked the witnesses to inform us as to what materials they
4 have before them and then counsel represents either that
5 those are all materials we have previously been provided or
6 identify as ones that have not.

7 JUDGE FRYE: Did we do that at the outset or at
8 the close?

9 MR. PIRFO: At the end.

10 JUDGE FRYE: Could you indicate the materials
11 you have been relying on?

12 WITNESS LIEBERMAN: I think what we did last
13 time was to list them in writing and then hand it to them.

14 MR. SUTKO: No, that's not correct, Mr.
15 Lieberman.

16 JUDGE FRYE: I don't think so, Mr. Lieberman.

17 MR. ZEUGIN: I know what we did. We essentially
18 prepared a list and then Mr. Weismantle read it into the
19 record.

20 JUDGE FRYE: Oh, I see.

21 MR. ZEUGIN: I will be glad to do that over the
22 lunch break, too. That's the most efficient way, to simply
23 list the documents.

24 JUDGE FRYE: Also, does the Staff have very many
25 questions of these witnesses?

MR. PIRFO: I don't have any questions.

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Q Then I guess I'm confused. Which definition did you use?

A (Witness McGuire) We'll give you the benefit of the doubt and say from the order of evacuation it was still too long.

Q I'm not asking that, Inspector McGuire. I'm asking when you drafted this particular sentence or it was drafted under your supervision what it was you intended by the phrase, or what you meant when you said "until long after evacuees would be on the roads attempting to evacuate"?

My question is when would those evacuees in your view have started to evacuate in the context of this sentence?

A (Witness Michel) Both before and certainly after 10:24 a.m.

Q Gentlemen, let me have you turn to page 30.
(Witnesses comply.)

On the bottom of that page again you use the phrase "until long after evacuees have been on the roads attempting to evacuate."

In that phrase are you again referring to the fact that evacuees may be evacuating both subsequent to the order to evacuate as well as some evacuating prior to that time?

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2 A (Witness Michel) Well, I think we answer right
3 up in the beginning of that where we say no, even assuming
4 that no one would have attempted to evacuate prior to
5 10:24. So in this particular answer we're narrowing it just
6 a little bit more. But we have never agreed that people
7 would wait until an order to evacuate in order to begin
8 evacuating. We have never agreed with that from day one.

9 Q Let me have you turn to page 35 of your
10 testimony.

11 (Witnesses comply.)

12 In the third line carrying over onto the fourth
13 line you are beginning to talk about when certain traffic
14 control treatments are establish, and you state "even if
15 established after the outset of the evacuation process."
16 Could you define for me the time at which you were referring
17 when you say "at the outset of the evacuation process? Is
18 that at the time the order to evacuate was given or at some
19 earlier point in time?

20 A (Witness Michel) Where are you referring us to,
21 Mr. Zeugin?

22 Q Lines 3 and 4 on page 35.

23 A I think what we are referring to here is what we
24 have testified to in the past, that we would have
25 substantial pre-evacuation traffic, mobilization traffic,
people uniting their families and people coming home from

1 work that would interfere with the beginning of the
2 evacuation traffic.

3 We are talking about the concurrent continuous
4 flow treatments and various other traffic strategies that
5 are provided for in the plan in this particular sentence,
6 and I think that is the thrust of what we are speaking about
7 here.

8 Q I understand that, Inspector Michel, and what
9 I'm focusing on is your use of the phrase "at the outset of
10 the evacuation process." I'm simply asking you to define
11 for me at what point in time is the outset of the evacuation
12 process in your view when you drafted this sentence? Is it
13 when the order to evacuate was given or was it at some
14 earlier point in time when evacuees may as a result of some
15 earlier public announcement have in your view started to
16 evacuate?

17 A We believe that people would evacuate before the
18 official announcement to evacuate was issued.

19 Q And that's how you've used the phrase "the
20 outset of evacuation process" in this sentence?

21 A Yes.

22 Q Finally, let me have you turn to page 41 of your
23 testimony.

24 (Witnesses comply.)

25 And have you look at the next to last line of

1 EBS messages used during the exercise call for traffic
2 guides to be in place to assist evacuees, LILCO during the
3 exercise failed to have such traffic guides in place in a
4 timely manner."

5 Gentlemen, I would like to have you define for
6 me what you mean by a timely manner, and how many minutes
7 following whatever action that you choose to define would
8 you think to be a "timely manner"?

9 A (Witness Roberts) I don't have a precise time,
10 minutes or hours, but it would have been in a more timely
11 and a better organized manner than what was disclosed by the
12 LERC parties on February 13th.

13 Q Gentlemen, I guess I'm trying to figure out what
14 would have satisfied you as being timely, and let's use as a
15 starting point the order to evacuate.

16 How long after the order to evacuate, or what
17 period of time following the order to evacuate would be
18 timely had LERO traffic guides arrived at their posts within
19 that period?

20 A (Witness Michel) I think we've said in the past
21 that we think that they should be in place at the time that
22 the order is given or, if not, within minutes afterwards.

23 A (Witness Roberts) Preferably before.

24 Q So essentially what you're saying is if I use as
25 a starting point the order to evacuate, then your answer is

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Q Inspector Michel, I take it that long answer was really a yes to my question, that for mobilization to be timely in your view, following the order to evacuate traffic guides would have had to be in place almost instantaneously?

A (Witness McGuire) Not instantaneously. They should have been there.

A (Witness Michel) I think we probably have a little disagreement here among ourselves as to exactly what, 'timely' means.

Certainly, the sooner the better. Before would be ideal, if not before, simultaneous with the order. Or very shortly thereafter, but not hours later.

Q Gentlemen, let me have you put to the side for this next question any assumptions about the speed of the accident. Let's assume whatever speed of accident you want, but I don't want that to really be the focus of my question.

My question is: How much time following an initial call-out of traffic guides, the initial calls made to traffic guides, to the time when they arrive at their post, what period of time in there between those two end points would you consider to be timely, if that whole process took place within that time?

A (Witness McGuire) If they were there at the time of the evacuation was ordered, that could be considered timely.

1 sentence you had used the term "until after the evacuation
2 process had begun" to refer to a process that occurred
3 before an order to evacuate was given; is that correct?

4 A We said that certainly we believed that there
5 would be evacuation traffic and that the evacuation process
6 would begin before an order to evacuate was given. But, I
7 think this particular paragraph goes to the heart of our
8 criticism that the guides aren't even dispatched until after
9 the order to evacuate or recommendation to evacuate is
10 given.

11 So, therefore, the fix can't work.

12 Q All right. I guess that gets pretty much to my
13 question. My original question was perhaps not as clear as
14 it could have been, which is, I take it then no fix short of
15 dispatching and sending traffic guides into the field before
16 an order to evacuate is given would satisfy you; is that
17 correct, for the purposes of this testimony?

18 A (Witness McGuire) No. We already said if they
19 got there at that time or shortly thereafter and they were
20 trained and equipped, which you wanted us to assume they
21 were -- and I'm having trouble with that -- that would be
22 satisfactory.

23 MR. ZEUGIN: I have no further questions, Judge
24 Frye.

25 JUDGE FRYE: Mr. Zahnleuter?

1 JUDGE SHON: I have about two questions. The
2 first is just something that is probably quite evident from
3 the evidence that we have before us, but just to fix it in
4 my mind at any rate, your list of critical intersections can
5 be compared with the list of critical intersections that
6 Messrs. Weismantle and Lieberman gave us in their testimony,
7 and unless I am mistaken, the only one that corresponds
8 between the two of them is the Long Island Expressway and
9 William Floyd Parkway, is that right?

10 The others are all ones that they don't list as
11 critical, is that right?

12 WITNESS ROBERTS: We looked at a list of those
13 last evening before we left very briefly, and yes, you are
14 right, Judge.

15 JUDGE SHON: That is what I thought. The other
16 thing is something that Mr. Lieberman has told us about the
17 presence or absence of traffic guides and the influence that
18 that presence or absence would have on the evacuation time.

19 He has said that if the guides are there, it
20 shortens the evacuation time a given amount. The number was
21 I think an hour and a half or something like that.

22 Then, he has gone further and said that if they
23 are there for a fraction of the time, you get that same
24 fraction of the shortening; that is, if they get there too
25 late, but they are there for the last half of the

1 evacuation, then you shorten it half of an hour and a half,
2 or three-quarters of an hour.

3 If they get there only a few minutes late after
4 the beginning of the evacuation, they still shorten it just
5 about the same amount. It doesn't matter that they are
6 twenty minutes or half an hour late, because that only
7 knocks off fifteen percent, or twenty-five percent of the
8 effect that they have.

9 Do you believe that their presence or absence
10 affects the shortening of the evacuation in this kind of
11 linear fashion; so if they are there half the time, they do
12 half the good, do you think that is true?

13 WITNESS MCGUIRE: I am familiar with that blind
14 extrapolation that they use, and I don't agree with it.
15 There would be no point in trying to get the guards there in
16 a timely fashion if that was true, for one thing. I didn't
17 see any logic in that, frankly.

18 JUDGE SHON: Secondly, do you think that there
19 are situations in which if the guide arrives in a manner
20 such as you have called timely, that is, is there before
21 anything happens, he has a vastly different effect than if
22 he arrives, say, after a traffic jam has started to build
23 up. Does it affect his ability to perform. Do you form
24 knots you can't untie, so to speak?

25 WITNESS MCGUIRE: I don't think there is any

1 question of that, Judge. The sooner you get there, the
2 easier it is. We have a term, we don't want to lose a
3 street. Once you lose the street, getting it back is
4 sometimes close to impossible.

5 JUDGE PARIS: What do you mean by, 'losing the
6 street?'

7 WITNESS MCGUIRE: Losing control of the area,
8 whether it is vehicle traffic or pedestrian traffic, you
9 have to keep control from the outset.

10 Once there is confusion and -- sometimes you
11 can't get a handle on it until it subsides.

12 JUDGE SHON: In other words, you truly feel that
13 there is a sort of non-linearity in this thing. That if you
14 get there a little too late it might do a lot more damage to
15 your cause, is that right?

16 WITNESS MICHEL: I would agree with Inspector
17 McGuire.

18 In fact, yesterday I cited some examples where
19 we had special events that we had to plan for, and unless
20 you get a very early start you are not successful.

21 JUDGE SHON: Once you have lost it, you have
22 lost it.

23 WITNESS MICHEL: I completely concur with that.

24 WITNESS MCGUIRE: Now, we are talking about
25 trained people, trained police officers, not LILCO guides.

1 It would be even more important for them.

2 JUDGE SHON: I see. Thank you. That is all I
3 have.

4 MR. MILLER: I just have a point of
5 clarification, Judge Shon. Chief Roberts may have
6 something, but I just want to make sure, Judge Shon, it is
7 understood, I think the testimony is clear, the listing of
8 intersections given by the police witnesses on pages 41 and
9 42 is merely a sampling.

10 In fact, it says these are a few examples
11 whereas Mr. Lieberman's list I think was a complete list.
12 So, I don't want it construed by the Board that these were
13 all the intersections that the police witnesses thought were
14 important.

15 These are just some examples that they cite in
16 their testimony.

17 JUDGE SHON: I understood that the policemen's
18 list was not exhaustive. I just noted that they seemed not
19 to correspond at all.

20 MR. MILLER: I made the same notation, Judge
21 Shon.

22 WITNESS MICHEL: I also think it is important to
23 note that these intersections are some that we are citing
24 that are not within that two mile area.

25 JUDGE SHON: Yes, I realize that.

1 and this morning we had a traffic light out on 347 and we
2 had traffic delays. We have all had experience with special
3 events that have occurred in and around the county in our
4 law enforcement careers, some of which have drawn
5 substantial numbers of people to particularly confined areas
6 and we have had to deal with those.

7 I think that our experience speaks for itself,
8 and I would like to say that I think it is relevant and
9 would be relevant in a radiological emergency.

10 WITNESS MCGUIRE: In some of these operations we
11 have also learned are kind of philosophically opposed to
12 what Mr. Lieberman says. The best information is in the
13 field. You can't do a "near-a-wolf" in an operation like
14 that, if you know what I'm referring to.

15 JUDGE PARIS: You can't do what?

16 WITNESS MCGUIRE: There can't be somebody back
17 at the base calling all the shots because he would like to
18 have the information and maybe in a FEMA exercise he does
19 because he's handed a complete explicit message, but in the
20 real world it doesn't happen and they have to have
21 flexibility.

22 Any plan that is too rigid will break down to an
23 alarming degree because of its rigidity, if there is one
24 mistake in the planning or something changes in the field,
25 and we go more by field commanders, not because we like to,

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but because over a long period of time we've found it to be more effective.

As bosses you don't always like that. You give people orders and develop a plan and then you find out it wasn't followed the way you wanted it, but there is usually good reasons, or there are almost always good reasons and they get through because they did what they had to do at the time. If you held them to strict accountability, you would be doing a disservice to the public.

1 proposition that Ms. Letsche has set forth, that the
2 rejection of the shadow phenomenon in the partial initial
3 decision which you cite was a very qualified rejection,
4 indeed, and that it noted that a substantial voluntary
5 evacuation might indeed occur if the EBS messages and the
6 communication with the public was not clear and reliable and
7 that sort of thing?

8 As I understand their present position, the
9 present position of Suffolk County, it is, indeed, that
10 looking with analytical tools used by sociologists at the
11 EBS messages and the order in which they are presented,
12 these people have come to the conclusion that these messages
13 and the communications with the public were confusing. They
14 violated the very condition that the PID set forth.

15 Can they not present such material as evidence
16 that that happened?

17 MS. McCLESKEY: Yes, sir, they can. And, I have
18 very carefully gone through the testimony which is why there
19 are these lengthy lists of Page Number 2, Paragraph 4. And,
20 I have not moved to strike any testimony from the Suffolk
21 County witnesses that goes to the words used in the EBS
22 messages on the day of the exercise or any theoretical
23 analyses of how the words would have been confusing or
24 conflicting.

25 I am not moving to strike the discussions of the

1 EBS messages, although I think a good argument can be made
2 that since those EBS messages are almost word for word the
3 messages that were in Revision 6 of the plan and that we
4 litigated previously, that the language of the EBS messages
5 are not allowed to be relitigated.

6 But, I did not move to strike that. What I'm
7 striking -- what I would like to strike is the use of the
8 surveys and the focus group interviews which rely in part
9 upon condensed versions in the surveys and upon a playing of
10 the EBS message and the focus groups to go to the point of
11 how people will respond in an actual emergency, because I do
12 think that was previously litigated.

13 And, your decision -- you are right -- was
14 limited. And it did say we have to look at how LILCO
15 implements its plan, and the best predictor that we will
16 have of that next is the exercise. And, we want to see how
17 LILCO is going to use its EBS messages, and we want to see
18 what information is going to be disseminated.

19 And, that is the proper focus of Contentions 38
20 and 39. But you also found that polls did not -- the polls
21 that were already admitted and litigated did not and could
22 not supply respondents with urgent tone and situation-
23 specific information that would be publicly available in a
24 real emergency.
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1 LERO or LILCO. They were there as independent
2 representatives, as scientists. They were not members of
3 LERO.

4 MS. LETSCHE: It is true, isn't it, during one of
5 the press conferences, and I will direct your attention to
6 the transcript pages 58 and 59, that Dr. Brill announced that
7 although he lived within two miles of the plant, he probably
8 would not evacuate, at a time when people in that area were
9 being told to evacuate that area.

10 WITNESS MC CAFFREY: Yes, Dr. Brill said that.
11 That was immediately corrected by the news manager, who
12 indicated that the EBS recommendation should be followed and
13 Dr. Brill's opinion was that, his independent opinion.

14 MS. LETSCHE: Where in the transcript is that
15 reflected, Mr. McCaffrey?

16 WITNESS MC CAFFREY: Direct me to the page again,
17 please.

18 MS. LETSCHE: 58 and 59. When you get to the
19 bottom of 58 you will note your name there, and I think you
20 will probably want to make the correction that that
21 Mr. McCaffrey reference on line 20 on page 58 should be Dr.
22 Brill.

23 WITNESS MC CAFFREY: That's correct. That's not
24 me speaking at that point. Will you just give me a moment?
25 I don't see it in the transcript, but I can testify here

1 today I personally heard it said.

2 MS. LETSCHE: During this actual news conference,
3 though, no such correction was made, right? By you or by
4 Ms. Robinson?

5 (Panel conferring.)

6 WITNESS ROBINSON: If you mean did we directly
7 contradict Dr. Brill, no, we had -- I had at least given the
8 protective action recommendations as they came from LERO.
9 The purpose of the news center, I think as we all understand,
10 it is not to prevent people from saying things that are
11 contradictory, but rather to have them in a place so you know
12 what they are saying and can cope with it.

13 WITNESS MC CAFFREY: My recollection from the time
14 is that I suspect that our person who was filming the press
15 conferences stopped because it was kind of winding down, and
16 it was at the very tail end of it that Mr. Langford reminded
17 people that they should follow the protective action
18 recommendations, so I suspect the tape is simply off at that
19 point.

20 MS. LETSCHE: In fact, if you turn to page 61,
21 which is the end of that press conference, Mr. McCaffrey,
22 there's a statement identified as "voice," which I think you
23 will agree with me is Mr. Langford, saying, "Okay, ladies and
24 gentlemen, I appreciate your cooperation. We'll be back with
25 you as soon as we have any updated information, and Dr. Brill

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1 will remain here to answer any follow-up questions." Sounds
2 to me that that was the end of that press conference, isn't
3 it?

4 WITNESS MC CAFFREY: That's what the pages say.
5 I'm telling you what I heard.

6 (Panel conferring.)

7 MS. LETSCHE: Mr. McCaffrey, would you turn,
8 please, to page 54 of the transcript? In this section
9 there's a question here to you on line 10 of the transcript,
10 "I'm interested in knowing how dangerous to the public is the
11 level of radiation that has been released to this point," and
12 so we're on the same wavelength here, this is at press
13 conference number 4, which is taking place roughly 1:00 time
14 frame, I believe. You refer that question to Dr. Brill,
15 right?

16 WITNESS MC CAFFREY: Yes.

17 MS. LETSCHE: Dr. Brill is with Brookhaven
18 National Labs; is that right?

19 WITNESS MC CAFFREY: Yes.

20 MS. LETSCHE: He has participated in LERO training
21 programs with respect to exactly this function, being a
22 supplement to the public information activities at the ENC,
23 correct?

24 WITNESS MC CAFFREY: Dr. Brill has not
25 participated in any training. He has from time to time

1 I believe I agree essentially with the Staff's
2 arguments that there has to and should be a nexus between
3 the organization of LERO and the training program. I submit
4 there is that nexus in the testimony. I will let it go at
5 that.

6 I disagree with the suggestion that there is
7 much in our testimony which goes to the issue of what should
8 have been encompassed within the confines of LERO's
9 training. We do offer examples of other kinds of training.
10 I hope the Board appreciates that those examples are offered
11 in the context of comparisons between what we consider
12 effective, appropriate and adequate training and the
13 training that was demonstrated by LILCO during the
14 exercise. It's not offered in the context of saying LILCO
15 should have done it this way.

16 Now, with response to Ms. Monaghan's comments, I
17 think there are really three responses. Ms. Monaghan
18 complains that LILCO has not been on notice of what was set
19 forth in our testimony regarding the organizational
20 structure. That's frankly an absurd statement on her part.

21 The deposition of Dr. Perrow was taken. There
22 is no way you could come away from Dr. Perrow's deposition
23 without having an understanding that this was exactly what
24 he was going to talk about in his testimony, the exact
25 precise matters that Dr. Perrow talks about where he is

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AFTERNOON SESSION

(1:50 p.m.)

Whereupon,

- DENNIS M. BEHR
- CHARLES A. DAVERIO
- MARY E. GOODKIND
- MICHAEL K. LINDELL
- ELLIOTT D. PURSELL
- and
- JOHN A. WEISMANTLE

resumed their places at the witness table and, having been previously duly sworn, were further examined and testified as follows:

JUDGE FRYE: Let's go back on the record, please.

With regard to the motion to strike, we grant the motion with regard to the Footnote 50 on page 110, and with regard to testimony on the organizational structure insofar as it raises matters revealed by the exercise which bear on the -- excuse me, I'm stating it wrong.

We will strike this testimony on organizational structure, but we will admit it to the extent that it raises matters revealed by the exercise which bear on the efficacy of the training program.

1 A No, I have not.

2 Q Have you read in its entirety the FEMA report?

3 A Yes, I have.

4 Q Now on page 3 of the testimony, Mr. Daverio, you
5 make mention of the training program for LERO. Is it fair
6 to say, Mr. Daverio, that from a conceptual standpoint that
7 LERO's training program has really not changed since LERO's
8 inception in 1983?

9 A (Witness Daverio) The basic components of the
10 training program are still the same as they were in 1983;
11 that's correct.

12 Q Mr. Behr, would you agree with that statement?

13 A (Witness Behr) Yes, I would agree with that,
14 the basic components. There are specifics to the training
15 program that have changed, but the basic components are the
16 same.

17 Q To make sure we understand, is it fair to say
18 that conceptually and with respect to basic methodology the
19 LERO training program is much the same today as it was in
20 1983 when LERO was founded?

21 A It's much the same. It has, however, been
22 expanded in some areas. For example, we probably have much
23 more in the way of practical exercise type training to date
24 than we have had in the past. With the advent of the bus
25 rallies, now it's fair to say that along with decon

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Walsh 1 programs have sought Section 350 certification?

2 JUDGE FRYE: What is the relevance of the 350
3 certification inquiry?

4 MR. MILLER: Well, I feel I am compelled to make
5 the inquiry, Judge Frye, because we have this discussion in
6 the testimony.

7 Frankly, I am confused as to the relevance of
8 it.

9 JUDGE FRYE: They have said earlier that it was
10 in there because they read the contention as demanding
11 perfect performance.

12 MR. MILLER: I find that hard to believe that is
13 how they read the testimony.

14 JUDGE FRYE: Well, I was going to just suggest
15 to you would it help if the Board indicated that it does not
16 read the contention as demanding perfect performance.

17 MR. MILLER: I certainly appreciate that from
18 the Board.

19 JUDGE FRYE: Maybe we can move on to the next
20 topic. Because I have a feeling we are kind of spinning
21 wheels at this point.

22 MS. MONAGHAN: Judge Frye, if I may just note
23 for a moment here. Since this seems to really deal with the
24 legal question of how one interprets the contention, if you
25 look at the contention, which is Attachment A to LILCO's

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Jewalsh 1 testimony, the last paragraph on the first page says, and
2 this is what the Interveners have submitted as the issues
3 for litigation under this contention here: Every instance
4 of a LILCO training deficiency revealed during the exercise
5 is not described at length in this contention, because they
6 are so numerous.

7 And here is the significant part: Virtually
8 every error made by a LILCO player during the exercise
9 involved to some degree a failure of the LILCO training
10 program to prepare personnel adequately to perform necessary
11 actions.

12 I think it is from that basis that one could
13 interpret that interveners may be alleging that perfect
14 performance is necessary, since they are alleging that every
15 single error made indicates a failure of the training
16 program.

17 MR. MILLER: That is ridiculous.

18 JUDGE FRYE: Hold on one second.

19 (Board confers.)

20 JUDGE FRYE: We do not view this contention as
21 requiring perfect performance.

22 MR. MILLER: Judge Frye, I am more than happy to
23 move on. If the Board has represented that this section of
24 the testimony, from Pages 9 to 10, that paragraph is
25 basically irrelevant --

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Walsh 1 people driving their cars. I assume they would have
2 evaluated those driving buses.

3 JUDGE FRYE: Is that so, Mr. Daverio?

4 WITNESS DAVERIO: The only problem I have with
5 evaluation, if you -- they would have evaluated them within
6 the staging area, going through briefings, going through
7 dosimetry, getting out.

8 But once they are dispatched into the field,
9 they would have only seen the ones driving real buses,
10 except when a real bus was at the transfer points where they
11 could have seen other bus drivers and the activities at a
12 transfer point, but not when they were driving the routes.

13 JUDGE FRYE: Okay.

14 BY MR. MILLER: (Continuing)

15 Q Now, with respect to -- could you just give me
16 the roughest estimate that you can, Mr. Daverio, of the
17 number of bus drivers who drove the buses, actually drove
18 buses?

19 A (Witness Daverio) General population?

20 Q Yes.

21 MS. MONAGHAN: Judge Frye, this is all covered
22 in Contention 21. I am not sure why we are doing it here.

23 JUDGE FRYE: Do you have it? Do you know it?

24 WITNESS DAVERIO: It is about eight.

25 MR. MILLER: About eight.

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BY MR. MILLER: (Continuing)

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Q Now, of the eight that were observed by FEMA --
let me back up. You are telling me Mr. Daverio that there
were eight actual bus drivers per general population, is
that correct?

A (Witness Daverio) To the best of my
recollection, sitting here now, that is right.

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Q Now of the eight that actually drove buses, FEMA identified three or four problems with the performance of those bus drivers; is that correct?

A (Witness Daverio) I can only think of three.

Q Were they all out of the Patchogue staging area?

A Yes.

Q So three of the eight had problems, and in each case were all three of those problems identified as a deficiency by FEMA, Mr. Daverio, to your knowledge?

(Witness Daverio confers with Witness Behr.)

MR. MILLER: I'm looking at page 66 of the report. These may be the three that you're referring to. One took two hours and ten minutes to proceed from the staging area to the transfer point. Another driver went to the wrong transfer point and his mistake was not recognized by the transfer point coordinator. A third driver missed a segment of an assigned evacuation route.

WITNESS DAVERIO: Those are the three I was thinking of when I answered your question. That is correct.

BY MR. MILLER:

Q And of course as part of its recommendation for that deficiency, Mr. Daverio, FEMA recommended that there should be additional training provided; is that correct?

A (Witness Daverio) Yes.

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Q Notwithstanding that of the eight observed three had these kinds of problems referenced in the report, Mr. Daverio. Is it your opinion that LERO's bus drivers, the performance of bus drivers did not constitute a deficiency at the exercise?

A Given the organization and the other means that that could have been performed and the types of failures, I would not have rated that a deficiency.

Q And could you tell me, Mr. Daverio, why you find it relevant that approximately 500 bus drivers immobilized and approximately 300 bus drivers were sent into the field when FEMA only observed eight and of those eight observed three were found to have performed inadequately by FEMA?

A Yes. It has to do with mobilization of all emergency workers above what anyone else that I'm aware of has ever done. It's to the point of having to provide dosimetry and the activities required to dispatching them into the field and the concept of setting up all the transfer points. Whether it be with a bus or a real car, the transfer point coordinators had to handle a large volume of vehicles. There may be others, but those are three that I can think of off the top of my head why I would think that it was reference it.

MR. MILLER: Judge Frye, the logical follow-up here is the extrapolation which I think can be drawn, but I

1 WITNESS LINDELL: It's clearly in my experience
2 it's clearly the case that people are less highly motivated
3 in emergency exercises than they are in emergencies.
4 Similarly, they tend to be less highly motivated in drills
5 than they are in emergency exercises.

6 I think though that in emergency exercises
7 people have a high enough degree of motivation because there
8 are important job consequences for most of the actors. They
9 are being evaluated and their organization as a whole is
10 being assessed by FEMA or the Nuclear Regulatory
11 Commission. If they do not perform adequately, I think most
12 people presume there are going to be personal consequences
13 for them. So they do have a fair degree of motivation in an
14 emergency exercise.

15 JUDGE SHON: Thank you.

16 BY MR. MILLER:

17 Q Now in about the middle of the page, gentlemen,
18 there is a statement about the numbers of ARCAs and
19 deficiencies that were identified by FEMA during the
20 Shoreham exercise, and you stated about half of them had
21 little or nothing to do with training, but rather concerning
22 equipment or procedures. Do you see that statement?

23 A (Witness Lindell) Yes.

24 A (Witness Milet) I do, too.

25 Q Are you telling us that about half of the ARCAs

1 normativeness?

2 A This is a general concept that has emerged from
3 research over several decades in the social sciences about
4 how it is easier for organizations when they respond to
5 emergencies to do things that are more in line with what
6 they do normally. In other words, in the generic sense it's
7 better in emergency planning to have police do police work
8 rather than fire work.

9 Q Now given that definition, Dr. Mileti, I assume
10 you would agree with me that with respect to normativeness
11 LERO does not typically perform -- well, LILCO personnel in
12 LERO do not typically perform the kinds of emergency
13 responsibilities they hold in LERO during their normal daily
14 jobs; is that a fair statement?

15 A There are actually two responses to your
16 question. In general absolutely yes, and I think that is
17 one of the fundamental issues here and always has been, and
18 I even remember speaking out on this several years ago
19 during the other hearings, and it was in reference to
20 normativeness is relevant in the sense that it makes it
21 easier for people to learn how to do what they need to do in
22 an emergency. It doesn't mean that you can't take people
23 and teach them how to do those same things successfully
24 through other means.

25 Normativeness generically as a concept is good

1 to design into an emergency plan, but that doesn't mean that
 2 you can't have an effective emergency response when it
 3 doesn't exist. At the same time, there was some attempt
 4 when LERO was being put together to take this notion into
 5 account, that is to take advantage of it to the extent that
 6 it could be taken advantage of.

7 And, therefore, people who were ascribed roles
 8 of driving buses were people who as a routine drive big
 9 things, and I'm sorry, I don't know more explicitly what big
 10 things are. They are not little.

11 Q Dr. Mileti, would you agree with me that given
 12 the composition of LERO in terms of the numbers and kinds of
 13 people that make up that organization that it is at least
 14 more difficult for LERO to satisfy the normativeness factor?

15 A More difficult than what?

16 Q More difficult than the typical emergency
 17 response organization?

18 A Yes, of course.

19 Q Now at the bottom of page 15 you set forth a
 20 number of subfactors which comprise the I guess the overall
 21 factor of having an understanding about interorganizational
 22 emergency response. These subfactors go on over to page 16.

23 A Yes.

24 Q Is it your opinion, Dr. Mileti, that each of the
 25 subfactors listed by you is necessary if you are to have an

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JUDGE FRYE: Well, I would certainly think we

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should be through today.

3

MR. MILLER: Maybe we --

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MS. MONAGHAN: Perhaps a two to three hour time

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limit might be appropriate on this if the Board feels it has

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heard most of what it needs to hear.

7

I just believe the County ought to be given an

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opportunity to conduct what cross-examination they feel they

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need to do.

10

JUDGE FRYE: Let me tell you what I'm focusing

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on here, because this goes to the weight of your testimony.

12

If you look at Question and Answer 37 on Page 31, it says:

13

"What do these analyses tell you about the efficacy of the

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LERO training program?"

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And, the Answer says, in essence, that the

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program is as good or better than training programs for off-

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site organizations at other plants in Region II; they

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demonstrate that there is nothing unique about the problems

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identified; almost half of the citations govern dosimetry;

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and, in Shoreham's case the task of improving performance is

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facilitated by the limited areas in which improvement is

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needed.

23

None of that, in my opinion, goes directly to

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the issue of whether there is a fundamental flaw in the

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training program. I mean, it's useful background but it

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simply, in my opinion, doesn't go to the question of whether there is a fundamental flaw in the training program.

And, that's why i don't see spending that amount of time on it.

10 10
1sh 1 MS. MC CLESKEY: My understanding is that we had
2 allotted three days for the issue based on page and other
3 items and that Mr. Miller had already announced a week and a
4 half ago that Mr. Lanpher wanted an additional day at least.

5 JUDGE FRYE: Yeah. I think it was probably
6 something like that. It's about 50 pages, as I recall.
7 Isn't it 50 pages?

8 MS. MC CLESKEY: Yes, sir, that's right.

9 JUDGE FRYE: So, it's about two days.

10 MR. MILLER: Judge Frye, it's 50 pages and four
11 to five or maybe six inches of attachments and 38 other
12 exercise reports.

13 JUDGE FRYE: Yeah, right. I'm not quarreling
14 with that. You know, all I'm saying is that I want the
15 outline, okay.

16 MR. MILLER: Fine.

17 JUDGE FRYE: Understood?

18 MR. MILLER: I will pass on the message to Mr.
19 Lanpher.

20 MR. SUTKO: As to the other problem, Judge Frye,
21 maybe I can make a suggestion. If Ms. Goodkind would like
22 now to select one of these exercises, list training problems
23 and then go through the body of the ARCAs and ARFI's during
24 lunch, I think she would be able to corroborate that these
25 numbers are correct, or any one of them she wishes to pick.

10 10
1 Or, I would be very glad to do that in cross-examination for
2 one or for all 19 exercises.

3 MS. MONAGHAN: That won't solve the problem,
4 Judge Frye.

5 JUDGE FRYE: Well, we need to confer on that.
6 And, it will give counsel an opportunity to study it. And,
7 I want to confer with my fellow Board members with regard to
8 it.

9 So, we will adjourn for lunch at this point.

10 MR. SUTKO: Judge Frye, before we adjourn could
11 I move the other post-exercise assessments into evidence at
12 this time?

13 MS. MONAGHAN: I haven't had --

14 JUDGE FRYE: Just hold all of that until we can
15 confer.

16 (Whereupon, the hearing is recessed for the
17 luncheon break at 11:30 a.m., to reconvene at 1:00 p.m.,
18 this same day.)

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A F T E R N O O N S E S S I O N

(1:00 p.m.)

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3 JUDGE FRYE: Can we go back on the record,
4 please?

5 We conferred again over lunch, and it appears to
6 us based on what has transpired so far this morning that we
7 would be well advised to return to the ruling that we
8 announced first thing this morning. We cannot envision this
9 particular testimony, this particular portion of the
10 testimony, supporting a finding with regard to whether there
11 is a fundamental flaw in the training program.

12 We view it as background information, which is
13 sharply contested. We have got obviously a situation where
14 if we allow this to go on I think the parties are going to
15 be wasting a great deal of their time and effort towards
16 something that really probably isn't deserving of quite that
17 much effort.

18 So, what we propose to do is to stop the cross-
19 examination now, permit Mr. Sutko to make an offer of proof
20 for the record so he will have that in the record for a
21 future reference if it's needed. And, we will only plan to
22 treat this particular information, if at all, as background
23 information, noting that it is subject to a considerable
24 dispute.

25 MR. MILLER: Judge Frye, I just want some

1 clarification if I could get it. Is it the Board's ruling
2 that there will be no further cross-examination of Ms.
3 Goodkind on this testimony?

4 JUDGE FRYE: That's correct.

5 MR. MILLER: And, I take it that that ruling is
6 based upon the fact that the Board effectively is striking
7 the testimony at Pages 27 through 32 and also Attachments C
8 and D of the testimony?

9 JUDGE FRYE: We are not striking it. But, I
10 think for your purposes it probably amounts to the same
11 thing, in that we are saying that we won't base a finding on
12 it.

13 If we use it at all, we would use only as
14 background information. But, we would not base a finding on
15 it.

16 MR. ZAHNLEUTER: May I ask, what would you use
17 background information for if you don't use it for a
18 finding?

19 JUDGE FRYE: We would not use it to determine
20 that there was or was not a fundamental flaw in the training
21 program. We might simply refer to it as saying that LILCO's
22 position is that they are about average with respect to
23 other emergency plans that they examined. And, that's
24 subject to dispute.

25 MR. SUTKO: Judge Frye, as that is the Board's

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2 isolated cases where one individual might need something,
3 and then we do these kind of isolated training sessions
4 where we talk to one person, and I gave you the example.

5 Q Now, Mr. Daverio, at the time of the exercise
6 LERO had been in existence for about three years and there
7 had been about three years of training of LERO personnel;
8 is that correct?

9 (Witnesses conferring.)

10 A In general I would agree. I don't know if it's
11 exactly three or a little more or a little less, but in
12 that range.

13 Q And what you're suggesting to me is that when
14 FEMA identified problems at the exercise and recommended
15 additional training, it's LERO's opinion that they will
16 give LERO personnel more of the same training?

17 A No.

18 Q How does LERO interpret the recommendations by
19 FEMA to provide additional training?

20 A On an individual basis. We take a look at not
21 only the training, but every comment FEMA made and decide
22 which is the most appropriate fix. Is it a procedure
23 change, is it a plan change, a facility change, an
24 equipment change or a training change. You make the
25 appropriate change. If it's a procedure change, that
requires a training change.

1 MS. MONAGHAN: I don't think so.

2 JUDGE FRYE: -- of actions taken after an
3 accident to show negligence? I think that's essentially
4 what you are saying.

5 MS. MONAGHAN: That's part of what I'm saying.
6 Also, the other aspect of it is that this is part of an
7 ongoing training program, and to use an ongoing training
8 program and the self-critique process of an ongoing training
9 program in a fashion that is used to supplement what
10 happened the day of the exercise and to try to establish a
11 fundamental flaw we believe is inappropriate.

12 And, I think that position has already been
13 stated by FEMA also on the record.

14 MR. MILLER: Judge Frye, I --

15 JUDGE FRYE: Well, I --

16 MR. MILLER: -- think we should wait until we
17 come to my questions. But, I will be using the post-
18 exercise grill reports as they have been used on a limited
19 basis in the past to show that LERO's training program has
20 not fixed anything, which is relevant to Contention 50.I.

21 But, I think objections to my questions, if they
22 are going to be made, should be made when my questions have
23 been asked.

24 JUDGE FRYE: Well, it's awfully hard to make an
25 objection without the question, I agree. But, I wanted to

1 get some better feel for what their position was so that I
2 can have a little bit of background when and if the
3 objection arises.

4 MS. MONAGHAN: That was the sole point in
5 raising it, Your Honor.

6 JUDGE FRYE: All right. We will be adjourned
7 until 9 tomorrow. And, let me say also that I think we have
8 two motions to strike on Contentions 15 and 16, one from
9 LILCO and one from Suffolk County.

10 And, we have a motion to limit cross-examination
11 from LILCO which pertains principally, as I read it, to
12 Contentions 15 and 16.

13 So, we will take up all those three on Wednesday
14 morning. I just wanted everybody to be aware of it.

15 MR. MILLER: Judge Frye, the last motion you
16 mentioned, the motion to limit cross-examination, I'm not
17 very familiar with that motion. I will check with my
18 office. I suppose some --

19 JUDGE FRYE: Well, Mr. Lanpher should be aware
20 of it. If he isn't, tell him to get it because it does
21 pertain principally to Contentions 15 and 16.

22 MS. MONAGHAN: The filing date on that, for your
23 information, Mr. Miller, was May 5th.

24 JUDGE FRYE: All right.

25 (Whereupon, the hearing is adjourned at 5:06

1 WITNESS DAVERIO: As I recall our contracts with
2 the ambulance companies, it's their responsibility to
3 provide the vehicle and a trained person. What we have done
4 because we found that they have this attrition problem if we
5 are giving them more opportunities to have training
6 available to their people so that we can maintain them
7 current.

8 JUDGE FRYE: So it's up to them to identify the
9 people who haven't had the training and get them to the
10 training session?

11 WITNESS DAVERIO: Well, we know who has had the
12 training. We don't know who has employment from their
13 company. That's the problem we have with it. We don't
14 monitor who is leaving their company. We just require that
15 they provide us an ambulance and a trained person and we
16 give them monthly opportunities to get people that are new
17 to their company trained.

18 BY MR. MILLER:

19
20 Q Mr. Daverio, the scope of the training that is
21 being provided on a monthly basis to these ambulance and
22 ambulance drivers, is that the full training program which
23 would ordinarily be offered to such drivers, for example, in
24 your quarterly program?

25 A Yes, it's the same training.

1 indicated to LILCO that the proposed modifications to
2 training must be evaluated at some future exercise?

3 A (Witness Daverio) I believe that's the
4 definition of an ARCA. If they give you an ARCA they want
5 to evaluate the next exercise. So, yes.

6 Q I'm referring to the proposed modifications to
7 the training program.

8 A Yes, and what I'm saying is it is consistent
9 with their definition of how they handle issues like this.
10 They want to see the closure at the next exercise.

11 Q Whether that next exercise be a future schedule
12 exercise under the regulations or a remedial exercise?

13 A I assume that's FEMA's decision. That is not
14 mine.

15 Q And I take it that it's your opinion, Mr.
16 Daverio, that in the exercise review, that overall LERO's
17 training program was adequate and therefore major changes to
18 the training program need not be made?

19 A I think you're quoting us somewhere in the
20 testimony. We say something very similar to that.

21 Q So you agree with my statement?

22 A Yes, and if you look at the top of page 65 we
23 have not restructured the basis training regiment that's
24 been approved. I think we have those words there.

25 Q And I take it then, Mr. Daverio, that you would

1 agree with me that none of the post-exercise changes or
2 modifications that have been instituted by LERO in its
3 training program constitute a major change, in your opinion?

4 A We have to be a little careful, and let me
5 explain it. When I talk about training regiment, I'm
6 talking about the basic concepts of training. We have
7 classroom training, we have tabletops, we have drills and
8 exercises and practicals during classroom sessions.

9 That does not mean that I did not feel that
10 there were specific new types of training, i.e., for bus
11 drivers that we had to do which we have outlined in this
12 testimony. So I'm not sure I can agree or disagree exactly
13 with you, but when I used the word "regiment" I'm talking
14 about the big, broad concepts of training and not the
15 details.

16 Q I'm looking at the sentence that starts on page
17 64 where you say that IILCO felt major changes in the LERO
18 training program were unwarranted and would actually be
19 counterproductive. So I'm assuming, Mr. Daverio, that in
20 your opinion none of the changes that have been made since
21 the exercise constitutes a major change. Is that a fair
22 statement?

23 (Witnesses conferring.)

24 A The only one I have that I have that I would
25 like to define as a major addition was the bus driver road

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1 rallies that we did. I don't think it changed the basic
2 thrust of our program. It was just an addition to the
3 program.

4 JUDGE PARIS: The bus drivers' what?

5 WITNESS DAVERIO: The bus driver road rallies
6 that are discussed on page 72 and 73 of our testimony which
7 I assume I'll get questioned on later.

8 BY MR. MILLER:

9 Q Now, Mr. Daverio, as the contention, Contention
10 50 points out, and I'm looking at the first page of your
11 Attachment A, the previous Licensing Board in this
12 proceeding rendered its conclusions regarding the adequacy
13 of LILCO's training program subject to confirmation by a
14 finding to be made by FEMA after a graded exercise; is that
15 correct?

16 A (Witness Daverio) That's what your quote says,
17 and I assume it's right.

18 Q And it's fair to say, is it not, Mr. Daverio,
19 that FEMA made no finding with respect to the adequacy of
20 LILCO's training program based upon the results of the
21 exercise in February 1986?

22 MS. MONAGHAN: Objection. This is all in the
23 record and it's not part of this training contention. So
24 it's a legal argument that's being made here.

25 JUDGE FRYE: Sustained.

1 Q Mr. Behr maybe should answer first, Mr. Daverio.

2 A (Witness Behr) Well, I think Mr. Daverio
3 explained what we considered to be a major format or program
4 change. These do not constitute major program changes.
5 These constitute changes in planning concepts which resulted
6 in changes in procedures which resulted in changes in
7 training that had to be provided in order to support those
8 new procedures.

9 Q Do you classify the changes since the exercise,
10 Mr. Behr, as major changes in the training program?

11 A Not programmatic changes, no.

12 JUDGE FRYE: You are making a distinction there
13 which I'm not sure I grasp entirely. Can you elaborate a
14 little bit on it between the program and --

15 WITNESS BEHR: The training program, for all
16 intents and purposes, consists of classroom training
17 sessions, table-top exercises or drills and practical
18 training drills and exercises, all right.

19 JUDGE FRYE: That's the program?

20 WITNESS BEHR: That is the program. And, those
21 three major components have been in existence for the better
22 part of the last three years.

23 JUDGE FRYE: So, when you say --

24 WITNESS BEHR: We have not changed that.

25 JUDGE FRYE: I see. So, that has not been

1 changed. But, you have changed elements within -- training
2 elements within the program?

3 WITNESS BEHR: Yes, to reflect changes that we
4 have made in the LERO plan.

5 JUDGE FRYE: I think I understand now.

6 BY MR. MILLER: (Continuing)

7 Q But, Mr. Behr, with respect to the changes that
8 have been made within the elements of the program, you would
9 not characterize those changes as major changes, would you?

10 A I think with the one exception that Mr. Daverio
11 pointed out earlier, and that being the bus rallies that we
12 are running?

13 JUDGE PARIS: You mean the road rallies?

14 WITNESS BEHR: The road rallies.

15 JUDGE FARIS: Okay.

16 BY MR. MILLER: (Continuing)

17 Q How long -- let me just back up. In June of
18 1986, there was a training drill held for LERO personnel,
19 true?

20 A That's true.

21 Q And, that was the first training drill that had
22 been held for LERO personnel since the exercise; is that
23 true?

24 A To the best of my knowledge, that is true. Yes.

25 Q And it had been approximately one year since

1 didn't even exist then, did it?

2 A That's correct.

3 A (Witness Keller) That's correct.

4 A (Witness Baldwin) That's correct.

5 Q Now, gentlemen, I would like to turn your
6 attention to the FEMA report, page 8, your evaluation
7 criteria.

8 (Witnesses comply.)

9 That report states, and I quote, "Deficiencies
10 are demonstrated and observed inadequacies that would cause
11 a finding that offsite emergency preparedness was not
12 adequate to provide reasonable assurance that appropriate
13 protective measures can be taken to protect the health and
14 safety of the public living in the vicinity of a nuclear
15 power facility in the event of a radiological emergency."

16 Do you see that statement, gentlemen?

17 A (Witness Kowieski) Yes, I do.

18 A (Witness Keller) Yes, I do.

19 A (Witness Baldwin) Yes.

20 Q And in connection with your evaluation of the
21 Shoreham exercise FEMA identified a number of deficiencies
22 as defined on page 8; isn't that correct?

23 A (Witness Kowieski) That's correct.

24 Q And by definition, therefore, FEMA was not in a
25 position after the exercise to make a reasonable assurance

1 finding; isn't that correct?

2 A That's also correct.

3 A (Witness Keller) Also, prior to the exercise
4 FEMA had stated that they would not make a reasonable
5 assurance finding as part of the negotiations under the MOU,
6 the NRC/FEMA MOU as to whether we would hold this exercise
7 or not.

8 Q You're referring to Mr. Speck's letter?

9 A That's right.

10 A (Witness Kowieski) That is correct.

11 Q Mr. Keller, assume for a moment that that Speck
12 letter had not existed. The fact that you identified four
13 or five deficiencies during the Shoreham exercise, that
14 would have precluded FEMA Region 2 from making a reasonable
15 assurance finding on the basis of that exercise, wouldn't
16 it?

17 MS. McCLESKEY: Objection. His question is not
18 related to any of the contentions before this Board.

19 MR. LANPHER: It's related directly to the
20 question of whether assurance findings could be made, and
21 that's the whole purpose of this proceeding.

22 MS. McCLESKEY: My understanding of his question
23 is that if it were a different kind of exercise would they
24 have made a finding of reasonable assurance.

25 JUDGE FRYE: Is that your question?

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1 MR. LANPHER: That wasn't my question.

2 JUDGE FRYE: Overruled.

3 MR. LANPHER: Mr. Keller, do you recall my
4 question, or would you like me to repeat it?

5 WITNESS KELLER: I think I remember what you
6 said I believe.

7 Generally speaking in a normal exercise, and
8 clearly this is not a normal exercise, when deficiencies are
9 identified the Regional Director does not make a reasonable
10 assurance finding.

11 BY MR. LANPHER:

12 Q In fact, you're aware of no situation where
13 deficiencies were found and a reasonable assurance finding
14 was issued with those deficiencies; isn't that correct?

15 A As a bottom line I would agree with you.
16 However, the particular Regional Director in question did
17 make a statement at a public meeting immediately after an
18 exercise that there were no problems and in fact there was a
19 deficiency.

20 A (Witness Keller) He would have been incorrect?

21 A He had been incorrect.

22 Q But that was because he made an error, correct?

23 A I wouldn't characterize it that way, but that's
24 all right, yes.

25 Q The general rule, Mr. Keller, is if FEMA Region

1 2 identifies deficiencies in an exercise the Region is not
2 in a position to make a positive reasonable assurance
3 finding; isn't that correct?

4 A The other thing that I would like to add ---

5 Q Could you answer the question first, and if you
6 to qualify your answer, fine.

7 A Okay. The Region does not make a finding. FEMA
8 headquarters makes a finding. The finding becomes a FEMA
9 finding when it is transmitted from FEMA headquarters to the
10 NRC. With that clarification, the Region has not, after all
11 the dust had settled -- if deficiencies were identified, the
12 Region has not recommended to FEMA headquarters that a
13 reasonable assurance finding be made when deficiencies are
14 identified in an exercise.

15 Q And Washington D.C. headquarters has not made
16 such a reasonable assurance finding when deficiencies are
17 identified; is that correct?

18 A (Witness Kowieski) As far as FEMA Region 2 is
19 concerned; that's correct.

20 Q I don't want you to speculate about other
21 situations.

22 And isn't it true that the normal practice where
23 deficiencies are identified and it has gone through the
24 review process so you've decided there are deficiencies,
25 that the next step is to schedule remedial actions or a

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1 remedial exercise to deal with those deficiencies?

2 A (Witness Kowieski) That's correct.

3 A (Witness Keller) For a plant which has an
4 operating license, that is correct.

5 Q Well, for any plant in order to remove
6 deficiencies don't you require a remedial exercise?

7 A That is correct. However, the timing, and I
8 think you said schedule immediately, or I thought I heard
9 you, and it may not.

10 Q Well, let me come at it a different way then,
11 Mr. Keller.

12 In order to remove a deficiency, you have to
13 have a remedial exercise, don't you?

14 A Or a drill.

15 Q Or a drill, but some sort of a demonstration;
16 isn't that correct?

17 A That is correct.

18 Q And not just a paper plan fix?

19 A That is correct.

20 A (Witness Kowieski) The paper fix comes first
21 and it is followed by a remedial exercise.

22 Q And in the RAC review which has been marked as
23 FEMA Exhibit 3 in evidence, in some of the tables at the end
24 of that RAC review on the far side where there were
25 deficiencies identified, there is an "I" for incomplete.

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A That's correct.

Q And am I correct that that indicates that the remedial action will not be deemed to be acceptable and complete until a drill or an exercise occurs to demonstrate that the so-called fix in fact would be properly implemented?

A (Witness Keller) Let's clarify. You're talking about the far right-hand column?

Q Yes.

A Yes, that's correct. There are two columns there, and sometimes there are "I's" in the next to the last column also.

Q Why don't you look, so we are all on the same wavelength, at Table 3.1 on page 1 of 16, and this is in FEMA Exhibit 3.

(Witnesses comply.)

Am I correct that this page as well as the following page deals with a deficiency identified by FEMA in LERO's response to the evacuation impediment free-play messages?

A (Witness Kowieski) That is correct.

A (Witness Keller) That's correct.

Q And in the far right-hand corner, Mr. Keller, there is an "I" which indicates the need, does it not, to demonstrate the adequacy of the fix at a remedial drill or

1 exercise?

2 A That is correct.

3 A (Witness Kowieski) Correct.

4 A (Witness Keller) Now if you will turn to page 2
5 of 16, which is all part of this table, I think every time
6 we have done this, there is a statement in the column which
7 is labeled "FEMA Evaluation of LERO Response," and there
8 will be a statement at the end of that which says to the
9 effect, as this one says, effective use of these plan
10 modifications should be evaluated at a future exercise.

11 So there will not only be an "I" in the column
12 labeled "Remedial Action Either Company or Incomplete," but
13 there should be a verbal statement that this has to be
14 demonstrated in a future exercise or drill.

15 Q That verbal statement is really almost a
16 reminder to FEMA to make sure that in the next drill or
17 exercise this has to be looked at specifically because there
18 is an "I" in that other column, correct?

19 A That is correct.

20 A (Witness Kowieski) Correct.

21 Q And those "I's" in the far right-hand column
22 apply to ARCAs as well as deficiencies; is that correct?

23 A That's correct.

24 A (Witness Keller) That is correct.

25 Q To your knowledge, gentlemen, has any remedial

1 Q Yeah, let's talk about Page 1. Now, Page 1
2 relates to the deficiency that we have discussed a little
3 bit already. And, the way you-all did it in your report,
4 your evaluation of the exercise, you identified two problems
5 related to the hard copy communication issue, with respect
6 to the EBS messages and with respect to getting documents to
7 rumor control, right? EBS messages to the media and
8 information to the rumor control, right?

9 A (Witness Kowieski) That's correct.

10 Q Now, there are two separate functions, are there
11 not, that are involved here? One is communication to the
12 media and one is rumor control. Those are separate
13 functions, right?

14 A (Witness Keller) Yes.

15 (Witness Kowieski) Yes.

16 Q But, you nonetheless identified just one
17 deficiency rather than two, right?

18 A (Witness Keller) That is correct.

19 Q And, I believe we already established that in
20 order to -- that in addition to reviewing whatever plan
21 responses LILCO comes up with that there will have to be an
22 exercise to determine the adequacy of whatever plan fixes
23 there are; is that right?

24 A (Witness Kowieski) That is our position.

25 Q Now, would you turn to Page 3 of this table,

1 please?

2 (The witnesses are complying.)

3 Now, this relates to one of the ARCAs identified
4 during the exercise relating to maps and displays in the
5 media briefing room. This goes to the adequacy of LILCO's
6 ability to brief the media; is that right?

7 A That's correct.

8 Q And, I note on here that the NUREG element
9 reference is J.10.B. Shouldn't that be NUREG Element G.4
10 rather than J.10.B?

11 J.10.B doesn't relate to the news media, does --

12 A (Witness Keller) But, it does relate to maps
13 and population zones and evacuation areas. I think probably
14 a more pertinent reference would be to the G, or to both.
15 But, I think the more pertinent would be to the G, because
16 we are talking about media relations. J generally talks
17 about the EOC; and, generally the ENC and the EOC are not in
18 the same place.

19 Q Right. And, in fact, this was a problem which
20 Ms. Jackson identified in her evaluation of ENC Objective 3,
21 correct?

22 A And, Table 3.4 is clearly labeled Emergency News
23 Center.

24 Q And, with respect to this problem identified in
25 the briefing of the media capability the "I" in the final

1 column again indicates that there must be an exercise to
2 evaluate whatever plan fix is proposed; is that --

3 A (Witness Kowieski) That's what I said I believe
4 two minutes ago.

5 Q Well, that was with respect to the deficiency.
6 I wanted to make sure it was also true with respect to this
7 ARCA.

8 A (Witness Keller) It's stated in the third
9 column or in the FEMA evaluation of the LERO response.

10 Q Okay. Would you turn to Page 4 please of Table
11 3.4?

12 (The witnesses are complying.)

13 Now, on this one I notice that there is an "NR"
14 in the NUREG element column. What does that mean?

15 (The witnesses are conferring.)

16 A It's either not reported or not -- I think it's
17 not reported.

18 Q What does that mean, not reported?

19 A The 35 standard FEMA objectives and hence our
20 subset which are breakdowns of those individual ones were
21 cross-referenced when attached to the August '83 memo that
22 promulgated these 35 standard objectives. Each one of the
23 objectives was cross-referenced to at least one, and
24 sometimes multiple, planning elements in NUREG 0654 in most
25 cases.

1 Q And, in the FEMA report, based upon Mr.
2 Giardina's observation, FEMA found that objective only
3 partly met, correct?

4 A (Witness Keller) That is correct.

5 Q And, in the RAC review which is FEMA Exhibit
6 Number 3 that item is -- give me just a second.

7 (Pause.)

8 A 6, 7 and 8 of --

9 Q Right. And, those items are --

10 A Page 6, 7 and 8 of Table 3.1.

11 Q Well, it actually begins on Page 5, doesn't it,
12 Mr. Keller?

13 A That's correct, yes.

14 Q So, it's 5 through 8, and those items, based on
15 Mr. Giardina's observation, are still incomplete because
16 they require an exercise; is that right?

17 A I -- yes, that is correct. I think we might
18 save time. We would stipulate that all corrective actions
19 arising from the exercise are still incomplete, because they
20 require some verification that the correction has been
21 made. No verification has been made. To my knowledge, no
22 verification at this time is planned. All of those are
23 incomplete.

24 JUDGE FRYE: So, now they require some
25 verification at an --

1 WITNESS KELLER: An exercise.

2 JUDGE FRYE: -- exercise?

3 WITNESS KELLER: That's correct.

4 JUDGE FRYE: Is this a full
5 participation/integrated exercise?

6 WITNESS KELLER: Based on Mr. Husar's statement.

7 JUDGE FRYE: Okay. You don't really know the
8 answer?

9 WITNESS KELLER: Well, he told me personally
10 that he feels that it ought to be -- he told me that he
11 feels it ought to be an integrated exercise; that's correct.

12 JUDGE FRYE: So far as you know at this point,
13 all of the deficiencies and ARCAs that were identified in
14 the February 13 exercise before the remedial actions may be
15 accepted they must be demonstrated at a full participation
16 exercise?

17 WITNESS KELLER: That's right. The plan changes
18 may or may not be accepted. That's documented in Exhibit 3.

19 But, everything is incomplete at this point in
20 time to my recollection.

21 JUDGE PARIS: Including the deficiencies?

22 WITNESS KELLER: Yes, sir.

23 JUDGE PARIS: I thought there was a 120-day time
24 limit?

25 WITNESS KELLER: For an operating plant.

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2 A (Witness Kowieski) The specific time frame that
3 FEMA Region 2 has been using? No, we don't have any
4 specific time frame as long as traffic guides or any other
5 emergency workers are in a proper location at a time when
6 they are needed.

7 Q How does FEMA Region 2 determine that time frame
8 when traffic guides are needed?

9 A To respond to your question, first of all, you
10 have to see how a plan is designed.

11 Q I'm talking about the LILCO plan.

12 A Right, and when evacuation starts it's
13 reasonable to expect if the plan calls for it that the
14 traffic guides should be there.

15 Q So it's your understanding and your testimony
16 that the traffic should be at their posts in the field when
17 evacuation starts; is that correct?

18 A If the plan has a statement to this effect, yes,
19 it's an accurate characterization on your part.

20 Q And if the evacuation process starts prior to
21 the time that LILCO would recommend an evacuation order to
22 the public, therefore traffic guides should be in the field
23 in place at their traffic control posts; is that correct?

24 A No, I don't understand your question. If you're
25 asking me whether there is an early or volunteer
evacuation, is that what you're asking me for to respond to

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complete first shift for purposes of an exercise."

2

Would you explain that statement to me?

3

A (Witness Keller) For example, there are 333 bus routes to be run and we never evaluate 333 bus routes in any one exercise.

6

Q Let's stick with the road crews.

7

A Okay. If we leave the gas trucks in, right, there are 19 road crew vehicles staffed by 38 people. In any one exercise we would never evaluate 19 road crews.

10

A (Witness Baldwin) I know this isn't a test, but I'm going to clarify something. Mr. Keller just said 333 bus routes I believe. It's 333 bus drivers and there are 40 some routes.

14

A (Witness Keller) Sorry.

15

(Laughter.)

16

Q Let me back off. Looking at the sentence that I was referring you to, gentlemen, on page 16, you are just simply saying there that FEMA would not have required LERO to have mobilized all of its road crew personnel?

20

A (Witness Keller) That's correct.

21

Q FEMA did not require LERO to do that, did it?

22

A That's correct.

23

JUDGE PARIS: Is this a matter that would be evaluated at some exercise in the next six years or in a six year period?

25

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2 Q Well, let me ask you, Mr. Keller, from your
3 knowledge of other exercises with respect to the road
4 impediments, simulated road impediments, of other
5 exercises, have you ever seen a response as poor as LERO's
6 response to the two simulated impediments on the day of
7 February 13, 1986?

8 MR. PIRFO: Staff counsel objects to that.

9 JUDGE FRYE: Why?

10 MR. PIRFO: I'm not sure it points out a
11 fundamental flaw in this plan. I mean, we are comparing --

12 JUDGE FRYE: Overruled.

13 WITNESS KELLER: I'm trying to remember. I
14 don't believe we've had in Region II a deficiency
15 previously on impediments to evacuation.

16 BY MR. MILLER: (Continuing)

17 Q So, you --

18 A (Witness Keller) Therefore, since deficiency is
19 the worst category that we can evaluate, therefore, aside
20 from some quibbling about your words, this is as bad a
21 grading as we can give. I don't believe we -- this is
22 based on recall of about 10 exercises, I don't believe we
23 have ever given this bad rating previously.

24 So, this would be in that regard the worst one
25 we have ever given.

Q And, I don't want you to quibble with my words,

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2 Mr. Keller. Your words in the past, under oath, have
3 described the response by LERO to the simulated impediments
4 as terribly done, just terrible; is that correct?

5 A I recall saying something like that.

6 Q And, you still believe that, I assume, Mr.
7 Keller?

8 A I said that it was -- as far as I'm concerned,
9 and I think I can speak for my colleagues here, the
10 performance in the LERO EOC was not good. It was a
11 deficiency.

12 We do not rate things deficient lightly. It was
13 not a good performance; it was terrible.

14 MR. MILLER: Now, Judge Frye, I think in another
15 five minutes or so we can wrap up this contention and maybe
16 take the lunch break then if we could -- I would like to
17 finish up this traffic issue.

18 BY MR. MILLER: (Continuing)

19 Q Mr. Kowieski, I want to explore a little bit
20 your discussion with Judge Frye and Judge Paris regarding
21 the reason you have injected the free-play message at the
22 EOC rather than in the field.

23 Is it fair to say, Mr. Kowieski, that prior to
24 the exercise consideration was given by yourself, Region
25 II, to injecting the free-play messages regarding the
impediments at locations other than the EOC?

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Brookhaven people by LILCO. That's the only caveat.

2 Q Just the Brookhaven caveat, that's it?

3 A Yes. Yeah.

4 Q Now, on Page 73 of your testimony, gentlemen,
5 when I read your testimony it appears to me that insofar as
6 Contention 50 accurately states the facts expressed in the
7 FEMA report, FEMA agrees with Contentions 50.A through 50.H
8 and Contentions 23, 27 and 28; is that correct?

9 A The factual part of the contentions, that is
10 correct. We don't necessarily agree with the conclusions,
11 with the same -- that's all.

12 Q Well, would you agree with me, gentlemen, that
13 the exercise for Shoreham demonstrated that LERO personnel
14 were unable to carry out effectively or accurately the
15 LILCO plan because of inadequate training?

16 A (Witness Kowieski) Some. Some of the LERO
17 personnel demonstrated that the training was not really
18 adequate.

19 Q And, with respect to those personnel, Mr.
20 Kowieski, who were unable to carry out effectively or
21 accurately the LILCO plan because of inadequate training,
22 those personnel would be identified in the FEMA report, in
23 your view, and to that extent you would agree with
24 Contentions 50.A through H, Contentions 23, 27 and 28?

25 A That's correct.

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(Witness Baldwin) We have tried to respond to this in writing where we say it's FEMA's position that the effectiveness of the training program must be enhanced to ensure that the emergency response personnel will be able to carry out their assigned roles within the framework of the plan.

Q Okay. We are going to come to that, Dr. Baldwin.

Now, the beginning of your answer on Page 73 states that most of the exercise inadequacies that were identified and evaluated as either deficiencies or ARCAs were attributed to breakdowns in the training program.

Do you see that statement?

A (Witness Keller) Yes.

(Witness Baldwin) Yes.

Q Did you attempt to make or conduct the same kind of analysis with respect to the areas recommended for improvement, whether or not those were related to the training program?

A (Witness Keller) I didn't.

(Witness Baldwin) No, not specifically.

Q Mr. Kowieski?

A (Witness Kowieski) I did not.

Q Okay. Now, when you state that most of the ARCAs and deficiencies were attributable to breakdowns in

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2 the LILCO training program, could you tell me what you mean
3 by breakdowns in the training program?

3

4

5

6

A (Witness Keller) That training needs to be
enhanced. We were not satisfied with the performance of
the individuals in some portion of the plan, implementation
of the plan.

7

8

9

10

11

12

An issue was identified that was either rated as
an ARCA or as a deficiency. And, we said this has to be
fixed. If it's deficient, under normal circumstances it
will be done in a remedial exercise or an expeditious
basis. For the ARCAs, it would be in the biennial
exercise.

13

14

15

16

17

18

And, generally speaking, the recommendation is
to improve the training. I think, to the best of my
recollection, that -- I tabulated these at one time but it
was a long time ago -- the only one that comes to mind
offhand that was not a training issue was the copy machine
breakdown. That was an equipment issue.

19

20

I think -- I would hazard a guess that greater
than 95 percent of the rest involved training.

21

22

23

24

25

Q Okay. Now, let me ask you this question,
gentlemen, because I think we are all looking for the
bottom line in a sense here, when do breakdowns in a
training program lead you to conclude that there is an
inadequate training program?

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2 that no such finding was made by FEMA following the
3 February 13th exercise?

4

A (Witness Kowieski) That's correct.

5

Q It is also true, gentlemen, that FEMA did
6 identify a significant number of training problems and
7 inadequacies following the February 13th exercise?

8

A That's correct as identified in the post-
9 exercise assessment.

10

Q Therefore, gentlemen, if a finding were to be
11 made by FEMA with respect to the adequacy of the LERO
12 training program, is it not the case that that finding
13 would be that LERO's training program has been, is and
14 remains inadequate?

15

A (Witness Keller) No. 1, I am not aware that
16 FEMA has ever made a finding on a training program as we
17 stated previously. The performance of the training program
18 is evaluated as part of the other objectives. An overall
19 finding which was precluded going into this exercise by the
20 letters between Mr. Speck and the NRC is not the same
21 thing.

22

When you put your question together you said
23 was, is not now, hasn't been, wasn't and isn't. All I can
24 is based on our evaluation of the February 13th exercise as
25 you had stated in your previous question, we observed many
areas where the training needs to be improved and was not

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completely adequate.

2

What it is now, we have no way of knowing. We have not evaluated that, and I think you had the future in there also I believe.

5

Q What about at the time of the exercise?

6

A At the time of the exercise, as we have stated several times, there were a number of issues raised by the performance of the individuals participating in the exercise which indicated that the training program needs to be enhanced and it was not completely adequate at that time.

12

A (Witness Baldwin) Could you be a little bit more specific when you say at the time of the exercise. Is that the day before the exercise or the day of the exercise? It makes a difference to me because in answering it FEMA did not evaluate the effectiveness of that training program before the exercise. It did it at the exercise.

18

Q We understand, Dr. Baldwin.

19

Gentlemen, let's go to Contention 42.

20

A (Witness Kowieski) What page?

21

Q It's page 59 of your testimony.

22

Q One little follow-up to this last line of questions, gentlemen. I take it from your answers that FEMA has not reviewed any post-exercise training materials such as drill reports and training logs and other records;

25

1 A No. The second part, the offsite, the offsite
2 considerations were properly addressed, yes. The onsite
3 considerations were the responsibility of NRC and not FEMA.

4 Q FEMA had some responsibility, didn't it, for
5 providing for a technically sound exercise upon which an
6 assessment of preparedness capabilities can be based?

7 A Yes, we did, and as far as coordination of NRC,
8 this was accomplished through the NRC RAC member who was
9 provided with the proposed exercise objectives and he was
10 provided with a copy of the exercise scenario.

11 Q On page 105 of your testimony in fact you state
12 "It is FEMA's position that the above exercise objective
13 required mobilization of LILCO's local emergency response
14 organization, LERO, its personnel and resources in
15 sufficient number to verify the capability to respond to an
16 accident scenario."

17 Now I direct your attention to the second
18 paragraph under the heading "Preparation For an Evaluation
19 of Joint Exercises in the MOU," which is where we were just
20 talking about.

21 The second sentence says "Exercise evaluations
22 will identify one of the following conditions:

23 "1) There is reasonable assurance that the plans
24 are adequate and can be implemented as demonstrated in the
25 exercise;

1 "2) There are deficiencies that may adversely
2 impact public health and safety that must be corrected by
3 the affected State and local governments in order to provide
4 reasonable assurance that the plan can be implemented; or

5 "3) FEMA is undecided and will provide a
6 schedule of actions leading to a decision."

7 My question is which one of these three
8 conditions did FEMA identify in its post-exercise evaluation
9 for Shoreham?

10 (Witnesses confer.)

11 A Well, I believe that part of 2 would be
12 appropriate, the first few lines, I would say two lines,
13 that we identify deficiencies in the exercise.

14 Q Which part of No. 2 are you discounting?

15 A To provide reasonable assurance that a plan can
16 be implemented. We did not provide reasonable assurance
17 whether the public health and safety can be protected or
18 whether the plan can be implemented or not.

19 Q Is it your testimony that this portion of the
20 MOU which says exercise evaluations will identify one of the
21 following conditions gives you that latitude to ignore that
22 part of No. 2?

23 A That's right, but I must go back to Mr. Speck's
24 letter to NRC to Mr. Dircks of October 29. The letter dated
25 October 29th from Mr. Speck to Mr. Dircks outlined FEMA's

1 particular was tasked with getting the job done, and in the
2 process of getting the job done we had to deal with someone,
3 and in this case it was LILCO. So GM-8 was modified, if you
4 will, for FEMA to discuss directly with the utility on the
5 operational details of how the exercise could be put
6 together, how the evaluation process would go, what the
7 objectives would be and what the scenario would be.

8 I see a clear distinction in the philosophic
9 decisions of how the exercise was going to be structured on
10 the grand scale and no bottom line that NRC has got to
11 decide the value. And if NRC decides it's valuable to have
12 the exercise, which they ultimately did, we now move into an
13 operational phase, how do we get the job done. And then you
14 would easily substitute the utility for the State and
15 locals.

16 Q Mr. Keller, why is it not possible for FEMA to
17 read this portion, No. 2, of the MOU to be there are
18 deficiencies that may adversely impact public health and
19 safety that must be corrected by the utility in order to
20 provide reasonable assurance that the plan can be
21 implemented?

22 A FEMA could do that, but going into the exercise
23 FEMA said there would be no bottom line. That was FEMA's
24 position and to my knowledge it hasn't been changed. We
25 have identified deficiencies within the exercise report,

1 which are part of the record, but this is a bottom-line
2 statement.

3 A (Witness Kowieski) Let me add. You know, I
4 didn't finish the second point you cited, the portion
5 dealing with the public health and safety, but you omitted
6 the last part, that must be corrected by the affected State
7 and local governments in order to provide reasonable
8 assurance. It refers to the State and local governments and
9 not to the utility plans.

10 Q Well, Mr. Kowieski, GM-8 refers to the
11 development of exercise objectives and scenarios with State
12 and local governments and you ignored that and substituted
13 utilities.

14 Now why can't you include utilities when you
15 talk about corrections of deficiencies shown by the scenario
16 and the objectives?

17 A I call your attention to the fact again that
18 Roger Kowieski did not make a decision whether to include or
19 not to include or substitute the State for the utility, or
20 vice versa. The decision was made by Mr. Sam Speck.

21 Q Mr. Kowieski, I think we need to clear something
22 up right now. Are you testifying as Roger Kowieski or are
23 you testifying on behalf of FEMA?

24 A I'm testifying on behalf of FEMA.

25 Q And Mr. Keller and Mr. Baldwin, the same is true

1 exercises.

2 And, I'm glad to ask these witnesses if they
3 have participated in any first evaluated exercises other
4 than --

5 JUDGE FRYE: Why don't you do that?

6 BY MS. McCLESKEY: (Continuing)

7 Q Have you?

8 A (Witness Keller) In New York or --

9 Q Anywhere?

10 A Yes.

11 (Witness Baldwin) Yes.

12 Q And, Mr. Kowieski.

13 A (Witness Kowieski) Yes.

14 Q Okay. Now, how does LERO's overall
15 effectiveness as evaluated in the post-exercise assessment
16 compare to other first evaluated exercises?

17 MR. LANPHER: I object to the question. It's
18 just far too broad to be meaningful.

19 JUDGE FRYE: Let's get the answer.

20 WITNESS KOWIESKI: I would say that LILCO
21 demonstration was an average or better than any other first
22 FEMA evaluated exercises in the State of New York.

23 BY MS. McCLESKEY: (Continuing)

24 Q And, is it fair to say, Mr. Kowieski, that the
25 Shoreham post-exercise assessment notes about an average

1 number of training problems when compared with other post-
2 exercise assessments?

3 A (Witness Kowieski) It would be hard to pass a
4 judgment without really going back to other post-exercise
5 assessments. The category of problems that we identify
6 during the Shoreham exercise are similar in nature to those
7 identified at other sites, like issue of training, training
8 of emergency response personnel, the use of KI or dosimetry.

9 This is, you know, consistently, from exercise
10 to exercise, at every single site this type of problem you
11 see over and over again. And, I haven't seen any -- one
12 single exercise in the State of New Jersey, in the State of
13 New Jersey or New York State that would not reveal this type
14 of problem.

15 The bus drivers, route alert drivers, a lot of
16 field personnel wouldn't have some kind of problem with the
17 knowledge, the use of KI, administration of KI, or
18 dosimetry. There is always some kind of problems revealed
19 during the FEMA evaluation.

20 JUDGE FRYE: What you are saying essentially
21 then is that the problems revealed in LERO's training
22 program are typical of those that are revealed --

23 WITNESS KOWIESKI: With respect to KI and
24 dosimetry. Impediments -- we already testified, impediments
25 it wasn't a typical one. Generally speaking, counties in

1 the State of New York handle impediments to evacuation very
2 well. There are some problems, but we never identified
3 problems of this significance like at the Shoreham exercise.

4 WITNESS KELLER: In the earlier system of
5 exercise evaluations prior to what we have now, prior to the
6 35 standard objectives and the modules, the evaluator was
7 required to place -- when an inadequacy was identified of
8 any magnitude, whatever magnitude, it was either a
9 procedural problem, an equipment problem or a training
10 problem.

11 In the earlier exercises, '81 and '82, earlier
12 ones, you saw more procedure problems and you saw more
13 equipment problems, okay. As the exercise cycle has gone
14 on, the procedure problems and the equipment problems have
15 all pretty well been resolved, so that the bulk of what's
16 left are training problems. So, in that regard it's about
17 the same.

18 We have not done a statistical 86 percent here
19 and 85 percent there, no. But, it's in general the same
20 sort of thing.

21 BY MS. McCLESKEY: (Continuing)

22 Q It's true then, isn't it, that when FEMA
23 evaluates an exercise it evaluates the overall performance
24 of the organization and not of individuals, right?

25 A (Witness Baldwin) That's correct.

1 Q Dr. Baldwin, you answered a series of questions
2 today about what you considered -- from Mr. Zahnleuter,
3 about what you considered in placing the impediment where
4 you did, and how you chose those and that sort of thing.

5 Did you also consider in putting these
6 impediments in this exercise whether they were within the
7 realm of reasonable possibility, given the traffic
8 conditions on Long Island?

9 MR. LANPHER: I object to the question. What
10 does she mean by, 'the realm of reasonable possibility?'

11 JUDGE FRYE: Do you understand the question.

12 MR. LANPHER: I object. I don't understand it.

13 JUDGE FRYE: I know you don't, but I want to
14 know --

15 WITNESS BALDWIN: Yes, I do.

16 JUDGE FRYE: I think we will permit it.

17 WITNESS BALDWIN: Well, as we said in the
18 prefiled testimony, they were designed to be realistic, and
19 we felt collegially that they represented a realistic
20 problem involving a blockage of an impediment route.

21 JUDGE FRYE: What do you mean by, 'realistic?'

22 WITNESS BALDWIN: That this could really
23 happen. That you could get --

24 JUDGE FRYE: In the situation of an evacuation,
25 this could happen?

1 WITNESS BALDWIN: Right.

2 BY MS. McCLESKEY: (Continuing)

3 Q Mr. Keller, do you agree with what Dr. Baldwin
4 just said?

5 A (Witness Keller) Yes. I would add we did not
6 do a probabilistic analysis of the likelihood of this
7 happening, but I -- it was something that was not
8 impossible, we thought.

9 JUDGE FRYE: Not so improbable as to be
10 unrealistic?

11 WITNESS KELLER: Yeah. It was not beyond all
12 credibility when you insert a message that -- we could have
13 crashed a 747 on that route, and that is possible, too.

14 There are airports around here. There are
15 planes flying over, but I think that was a little further
16 than we wanted to go to strain realism.

17 WITNESS BALDWIN: These are the kinds of -- and
18 I would say similar to the types of impediment messages we
19 have used in the past.

20 WITNESS KOWIESKI: At other sites.

21 BY MS. McCLESKEY: (Continuing)

22 Q Is it fair to say that your main concern was
23 getting an impediment that blocked the road so that you
24 could see a response of rerouting?

25 A (Witness Baldwin) Yes.

1 were not at their posts when evacuation was in progress.
2 That's what we are referring to.

3 Q And, so the statement, "you will be directed,"
4 is misleading because some people might not have seen all
5 the traffic guides out; is that your position?

6 A That's correct.

7 Q You didn't find that sentence misleading when
8 you reviewed the plan and the EBS messages, did you?

9 A No, we did not.

10 (Witness Keller) We didn't know at that time in
11 the paper review of the plan when the traffic guides would
12 be on station vis-a-vis when an evacuation message would be
13 aired. That's why you have exercises.

14 (Witness Kowieski) We anticipated when we
15 reviewed the plan that the traffic guides would be
16 dispatched and would be present at their posts when
17 evacuation will start, when evacuation will be in progress.

18 It happened that some of the traffic guides did
19 not arrive at their posts in timely manner.

20 Q Would you look at Contention 44, please? In my
21 set of the contentions, it's on Page 58 if that gives you a
22 ball park.

23 (The witnesses are looking at documents.)

24 Now, you will probably recollect that you
25 testified previously that leaving aside the words "the

1 assurance finding on the basis of those three deficiencies
2 if you had made any finding?

3
4 MR. CUMMING: Objection to this line of
5 questioning. The FEMA official position has been stated by
6 Mr. Kowieski. Is he asking a personal opinion?

7 MR. LANPHER: Excuse me. The FEMA position is
8 in their testimony.

9 JUDGE FRYE: Yeah, it is. And, I think it's a
10 legitimate question.

11 Overruled.

12 WITNESS KOWIESKI: Would you be kind enough to
13 restate your question again?

14 BY MR. LANPHER: (Continuing)

15 Q Mr. Kowieski, I -- let's go back a second. I
16 understand from your previous testimony that FEMA's initial
17 caveat about not making a finding was it's concern about how
18 to judge an exercise where there was no state and local
19 government participation, correct?

20 A (Witness Kowieski) That's correct.

21 Q But, after the Shoreham exercise you found
22 deficiencies that were entirely independent of that caveat,
23 correct?

24 A That's also correct.

25 Q And, given that fact that you found those
deficiencies, isn't it true that there was no reason that

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1 FEMA could not have issued a negative finding on the basis
2 of this exercise?

3 A There is -- there was a reason. There was an
4 agreement reached between NRC and FEMA.

5 Q But, that had nothing to do with the merits of
6 the exercise review, did it?

7 A That's correct.

8 Q That was a policy decision having nothing to do
9 with the exercise?

10 A Nothing to do with the results of the exercise,
11 that's correct.

12 Q Okay. And, the results of the exercise, the
13 three independent deficiencies, would have required a no
14 reasonable assurance finding under the MOU in any other
15 exercise?

16 A By definition of deficiency, that's correct.

17 Q In any other exercise, it would have led to a no
18 reasonable assurance finding, correct?

19 (The witnesses are conferring.)

20 A (Witness Kowieski) If -- again, big "if." If
21 NRC would request interim finding on the status of plans and
22 preparedness, most likely FEMA would have to conclude that
23 FEMA cannot give a reasonable assurance that public health
24 and safety can be protected; that's correct.

25 JUDGE FRYE: Mr. Kowieski, let me put this --

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1
2 WITNESS KELLER: That's correct. We just went
3 through this after Mr. Kowieski was relieved of his FAC
4 Chairmanship duties.

5 But, Guidance Memorandum EV-2 -- I'm sorry, EX-
6 1, excuse me. Guidance Memorandum EX-1, which I'm not sure
7 is an exhibit or not --

8 MR. LANPHER: It's an exhibit.

9 WITNESS KELLER: Okay. And, I don't remember
10 which exhibit it is, but on Page 4 of EX-1 there is a
11 section which is titled "Action on Inadequately Performed
12 Remedial Exercises." Okay. And, you only get into remedial
13 exercises if you have a deficiency.

14 JUDGE FRYE: Okay.

15 WITNESS KELLER: There are two actions
16 basically. One, if there isn't a formal 350 -- has not been
17 approved, okay, you haven't gone through a 350 process which
18 is the FEMA finding that reasonable assurance can be
19 assured; that's the formal process, the public hearing, the
20 whole thing, if you don't have that, you do not have the 350
21 in place, FEMA may, in consultation with NRC, require
22 another remedial exercise and NRC may consider enforcement
23 actions, which is exactly what Mr. Kowieski just said.

24 And, that was the case at Indian Point last
25 Summer. Okay.

If a 350 process has been finalized and the site

1
2 has been certified by FEMA, you initiate steps to withdraw
3 the 350. And, those are the two options for operating
4 plants.

5 We have no --

6 JUDGE FRYE: But, the point of it, if I
7 understand you correctly, is that if you have deficiencies,
8 you know, that have been demonstrated, whether the plant is
9 operating -- if the plant is operating, a process is going
10 to be started to correct the deficiencies or take
11 enforcement action?

12 WITNESS KELLER: That's correct.

13 JUDGE FRYE: If the plant is not operating, FEMA
14 would not take steps that would permit it to operate under
15 those circumstances, would it?

16 WITNESS KELLER: FEMA makes its position, its
17 opinion, known to the NRC.

18 JUDGE FRYE: That's right.

19 WITNESS KELLER: The NRC is the only entity
20 which can either allow the plant to operate or deny the --

21 JUDGE FRYE: I understand that. But, if FEMA
22 has conducted an exercise and there are deficiencies, FEMA
23 isn't going to say to NRC, yes, there is reasonable
24 assurance that the health and safety of the public can be
25 protected, is it?

WITNESS KELLER: That's a true statement in my

1
2 opinion.

3 BY MR. LANPHER: (Continuing)

4 Q And, in fact, given the deficiencies the only
5 finding that could have been made was that there are
6 deficiencies that may adversely impact the public health and
7 safety that must be corrected, right?

8 A (Witness Keller) If a finding were to be made,
9 that is the only finding that could be made; that's correct.

10 Q And, that's a negative finding, isn't it?

11 A Yes.

12 JUDGE FRYE: We will take a five minute break.

13 (Short recess.)

14 BY MR. LANPHER: (Continuing)

15 Q Gentlemen, you testified yesterday that on only
16 one occasion had you actually evaluated an EBS radio
17 station's performance during an exercise.

18 Do you recall that testimony?

19 A (Witness Kowieski) Yes, I do.

20 Q And, I believe you identified that as the August
21 11th, 1982 Fitzpatrick exercise? Maybe it wasn't clear on
22 yesterday's transcript which it was, and that's what I want
23 to clarify.

24 (The witnesses are conferring.)

25 MR. PIRFO: Could we have a transcript cite, Mr.
Lanpher?

ewalsh 1 you, and I think that LILCO might owe you, some offers of
2 proof. And, I'm wondering --

3 JUDGE FRYE: Well, I don't know that we need to
4 have --

5 JUDGE PARIS: LILCO Exhibit what?

6 MS. McCLESKEY: 22.

7 JUDGE PARIS: Thank you.

8 JUDGE FRYE: So, who would like to go first with
9 regard to definitions?

10 MR. LANPHER: I'm not offering to go first. I
11 don't think we should be doing it. I told you that
12 yesterday.

13 JUDGE FRYE: We will take LILCO first.

14 MS. McCLESKEY: Fine.

15 JUDGE FRYE: And, all we really want is your
16 definition. We don't -- you don't need to argue it at this
17 point.

18 MS. McCLESKEY: Right. A fundamental flaw is a
19 pervasive, systemic, conceptual flaw in a plan that has been
20 revealed by an exercise which, if not fixed, prevents the
21 issuance of a license because it affects the public health
22 and safety.

23 It is not readily correctable by equipment or
24 training but requires far-reaching changes to the plan
25 because it is a fundamental defect in the way an emergency

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walsh 1 plan is conceived.

2 Now, the term is not a regulatory requirement
3 and it's not defined in judicial decisions. It's used
4 rather as a pleading threshold. And, the legal etymology of
5 it, if you will, comes from the NRC's use of it in the Union
6 of Concerned Scientists case. They use the term
"fundamental flaw" to explain to the D.C. Circuit what the
NRC uses an exercise for.

9 They said they use it to identify fundamental
10 flaws. The D.C. Circuit picked the term up and used it in
11 dicta in its opinion in the Union of Concerned Scientists
12 case. The Shearon-Harris Board picked it up and used it as
13 a pleading requirement for the contentions filed in that
14 proceeding and applied it to all of the contentions, denied
15 all but two of them and disposed of the other two on summary
16 disposition.

17 And, then the Commission picked it up in this
18 proceeding in CLI 86-11 in ordering these hearings to go
19 forward on the Shoreham exercise. And that, if you will, is
20 the legal etymology.

21 Now, there are five definitional observations
22 that I would like to make. First, this Board, of course,
23 can order changes to the plan as a result of this litigation
24 without finding any fundamental flaw.

25 Second, a licensee always gets an opportunity to

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correct a fundamental flaw. That's the meaning of due process in the context of this sort of hearing.

3

Third, a finding of fundamental flaw does not necessarily require a remedial exercise.

5

Fourth, the deficiency definition by FEMA is not necessarily a fundamental flaw.

7

And, fifth, the use of the term shouldn't divert us from the NRC regulation's mandate which is, of course, reasonable assurance.

10

That's our definition.

11

JUDGE FRYE: Thank you. Does Suffolk County have a definition?

13

MR. LANPHER: Judge, I took to heart what you said yesterday, that you wanted something very brief. Mine is very brief.

16

JUDGE FRYE: That's right. That's fine.

17

MR. LANPHER: And, our conception is that fundamental flaws are exercise results events -- fundamental flaws in the context of an exercise proceeding, I should say, are exercise results, events or omissions and/or omissions which singularly or with other results, events or omissions preclude a finding of reasonable assurance that adequate protective measures can and will be taken on the basis of the LERO plan.

25

Thus, they reflect problems in the plan and/or

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2 its implementation which would preclude a reasonable
3 assurance finding.

4 JUDGE FRYE: Does New York have a definition?

5 MR. ZAHNLEUTER: The State concurs with that
6 definition so that the governments have one definition.

7 JUDGE FRYE: All right.

8 MR. PIRFO: Judge Frye, we really didn't
9 understand all of Mr. Lanpher's definition. If he could
10 just read it again slowly for us on the record so we might
11 pick it up.

12 MR. LANPHER: In the context of an exercise
13 proceeding, fundamental flaws are exercise results, events,
14 and/or omissions which singularly or with other results,
15 events or omissions preclude a finding of reasonable
16 assurance that adequate protective measures can and will be
17 taken on the basis of the LERO plan.

18 Thus, they reflect problems in the plan and/or
19 its implementation which preclude a reasonable assurance
20 finding.

21 MR. PIRFO: Thank you.

22 JUDGE FRYE: Does the Staff want to offer a
23 definition?

24 MR. JOHNSON: The Staff's definition is the
25 Commission's definition as found in CLI 86-11 and cited in
the Shearon-Harris case, as counsel for LILCO has stated.

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JUDGE PARIS: I can't hear you.

2

3

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MR. JOHNSON: A fundamental flaw means a deficiency which precludes a finding of reasonable assurance that protective measures can and will be taken.

5

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JUDGE FRYE: Does FEMA have any views on this? I'm not requiring --

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8

MR. CUMMING: FEMA has no views on this for the record.

9

10

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JUDGE FRYE: Okay. Thank you. Now, we need to talk about schedules for findings. Who wants to lead off?

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Ms. McCleskey?

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MS. McCLESKEY: I will be glad to. Judge Frye, LILCO proposes the following findings schedule. Now, when I made the dates up I was assuming the record was going to close tomorrow and I've counted all of my days from then. And, I think for simplicity I will just leave it that way for now.

That in 30 days from tomorrow that the Applicant file proposed findings. That would be on Monday, July 20 which is actually 31 days because 30 days is a Sunday. That in 40 days from tomorrow, the Intervenors file their proposed findings which would put them at Thursday, July 30. That in 50 days, the NRC Staff file which would put them at Monday, August 10 which also is 11 days from the Intervenors' filing because 10 days puts us on a Sunday.



October 31, 1986

0630-031-NY-015

To:

From:

Subject: Drill Report for June 6, 1986 for LERO Facilities - EOC, ENC and Riverhead Staging Area (partial)

Background:

A drill was held on June 6, 1986 to exercise portions of LERO. Those portions that were exercised on this date were the EOC, the ENC and the Riverhead Staging Area Management staff, administrative support staff, dosimetry staff and the traffic guides. All other groups within the LERO were simulated. Shift 2 was the team that participated.

Emergency Preparedness Drill Scenario 8A Rev. 0 (attachment 1) was used. This scenario was essentially the same as was used during the FEMA graded exercise on February 13, 1986 with the following major exceptions:

- o The length of the drill was shortened from 12 to 8 hours;
- o The start time was changed from 5:30 AM to 8:00 AM;
- o The length of time between the events for the Unusual Event and the Alert was shortened;
- o The LERO staff was prestaged at their respective facilities rather than being called out.
- o Proposed Revision 7 to the LERO plan and procedures were tested; in particular the assignment of traffic guides for the 2 - mile evacuation, and the new position of Traffic Engineer.

As a result of the FEMA evaluation of the February 13 exercise the following specific additional objectives and tests were added to the scenario:

- o Two impediments to evacuation were simulated to test the communications within LERO and LERO's response to the impediment; namely rerouting of traffic and public notification of the impediment;
- o The performance of traffic guides dispatched out of the Riverhead Staging Area was specifically looked at; namely all traffic guides stationed for a 2 - mile evacuation and the majority of the remainder, were verified to be on station;
- o Use of the Traffic Engineer as a new position within the LERO was exercised;

- o Demonstrate adequate reproduction capabilities (EMC) throughout the duration of the exercise.

Scenario Objectives:

Attached

Major Observer/Controller Comments:

Emergency Operations Center (EOC)

1. Set-up of the facility was adequate. The EOC was declared activated 49 minutes after the participants were told to report.
2. The notification for early dismissal of the schools within the EPZ was not done efficiently. It took 40 minutes to issue an EBS message following the declaration of the Alert. Eventhough the EOC was not declared activated, the Director and the Public Information Coordinator could have expedited this process.
3. A simulator was used to simulate the presence of Suffolk County. He was not to assume command and control of the EOC, but rather to offer any assistance to LERO which might be asked for, and which might be available from the County. The simulator proved to be a slight distraction to the Director of Local Response. EOC management personnel must be cognizant of outside parties in the EOC but should not lose sight of their prime responsibility unless that function is assumed by that outside party.
4. The preparation of EBS messages took too long. The Public Information Coordinator was getting involved in minute details of the message i.e., which persons were consulted by the Director. This caused several of the messages to miss the 15 minute deadline.
5. The EBS message for the General Emergency took 25 minutes to issue following the decision to initiate protective actions. This was due to the reasons stated above. Personnel, particularly the Director and the Public Information Coordinator, must be aware of the 15 minute time limit with regards to the issuance of EBS messages.
6. It took between 10 to 15 minutes to get the word out to the Staging Areas about the evacuation. Personnel in the EOC responsible for passing this word out are relying too much on the use of written message forms and the EOC Communicator. The use of the commercial phones on the

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individuals desks should be emphasized as a means of communicating to the Staging Areas and then followed up with the written message.

7. Written messages were frequently written on scraps of paper and then transcribed onto the standard message form. Often, no transcription took place. When the supply of message forms was depleted in the EOC, messages were not written down at all.

8. Updating of the status boards in the EOC was not very timely. At times entries were 30 to 45 minutes behind the actual events.

9. The Public Information staff did inform the EMC of the presence of the Suffolk County Simulator. However they did not inform them that [redacted] had relieved [redacted] as Director.

10. There was a communications problem between the dose assessment staffs in the EOC and EOF. The problem was one of a lack of cooperation between the two organizations. This is an area to be emphasized during future training sessions.

11. The EOC staff must talk to the TSC when the EOF is not staffed. Delays were encountered in the EOC because the EOF was not ready to assume command and control while the EOC was. (This was due to the way that the EOC staff was prestaged). In order to make contact with the TSC easier, telephone numbers of key individuals in the TSC should be placed in the LERO phone directory. Telephone numbers of the Control Room would also be helpful. The LERO staff must be reminded that contact should only be with the facility which has command and control.

12. In order to assist the dose assessment staff in dose projections, the telephone number for Weather Service Corporation should be included in the LERO phone book.

13. No comparison between the DOE field team data and the SNPS field team data was observed to be made by the REC.

14. There is a difference between the RECS forms used by the on site organization and the one in the OPIP's. This caused a lot of confusion especially in transmittal of the Part III data. This will be corrected in a future revision to the plan and procedures.

15. The Nuclear Engineer did a good job of assessing plant conditions and conveying to the Director the various possibilities of core failure and release paths.

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15. The Special Facilities Evacuation Coordinator thought that the one-hour delay in the start of the evacuation process from the time the word is conveyed to the public applies to all LERO assisted evacuation processes. He wanted to wait one hour to evacuate the mobility impaired following the order to evacuate. All persons should be reminded through training that the one-hour delay only applies to the buses leaving the transfer points for general public evacuation.

17. The Special Facilities Evacuation Coordinator delayed in proceeding with the deaf notification process until he had a copy of the EBS message for the evacuation. The only reason he needed the EBS message was for the zones to be evacuated. This information was readily available from other sources, namely the status board which was directly in front of his desk. This delay was unnecessary.

18. The ambulance group did a fine job in dispatching of the simulated ambulances and in briefing the simulated ambulance drivers.

19. The bus coordinator did a very good job considering it was her first time in this position.

20. The Traffic Control Coordinator delayed in getting traffic guides out after the word to evacuate was given. It took approximately 40 minutes to transmit the message to the Staging Area from the time the General Emergency condition was known in the EOC.

NOTE: This is a special objective item.

21. The handling of the first impediment to evacuation (the gravel truck) was generally done in a well organized and expeditious manner. The second road impediment (the fuel truck) was confused and the response was delayed. Specific comments on these two impediments are listed below:

NOTE: These are special objective items.

- o The Transportation Support Coordinator should have done a better job of keeping control and managing his group during the road impediment scenarios. No one individual was assigned to be in charge of handling these impediments. Because practically all groups in the EOC need to be made aware of such a problem it is important that one individual be responsible for coordinating this effort.

- o The RHC was not made aware of the impediment to evacuation until 2:15 PM; 1 hour and 30 minutes after

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the event had occurred.

- o The EBS message telling of the road impediment was issued at 1:29 PM; almost 45 minutes after the event had occurred. In addition this important piece of information was included with the entire EBS message and might have been missed by the general public. A special EBS message should have been issued.
- o The message for the second road impediment was called into the EOC and was properly logged on a message form, however when the information was relayed to the field, the wrong road was mentioned; Route 25-A vs. Route 25. The word came back from the controller, simulating a route spotter, that there was no impediment at the location indicated. At that time it was assumed that the impediment was either a false alarm or had been cleared, and no follow up action was taken. It was not until the controller in the EOC prompted the players three times to review the original message that any action was taken.

22. The position of the Traffic Engineer was utilized for the first time. Their exact responsibilities was not very clear in their own minds. They became too involved in traffic engineering details, i.e. extent of the crown on the road and its effect on traffic flow, rather than quickly advising the Evacuation group of alternate evacuation routes and their effect on evacuation time estimates.

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1. The dedicated telephone line between the EOC and ENC was not available for the drill. Backup commercial telephone lines were used satisfactorily. Repairs to the dedicated line have subsequently been made.

2. Of the two copier machines in the ENC, one failed during the drill. The repair technician was called twice and showed up two hours later. As a result of this problem, press releases were not distributed in a timely manner. The total copies made by the two machines were 1429 and 501 respectively. The Emergency Preparedness Group is in the process of obtaining new reproduction equipment.

NOTE: This is a special objective item.

Staging Areas

1. The lead traffic guide in Riverhead gave a clear and thorough briefing to the traffic guides.

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2. The Traffic Guides were dispatched approximately 13 minutes after the message to do so was transmitted from the EOC. This is an adequate time frame.

3. The Patchogue communicator in the EOC did not transmit the message to dispatch buses until prompted by the controller in Patchogue; 1-1/2 hours after the message was given to him by the bus coordinator.

4. When issuing revised or amended evacuation instructions to the Staging Areas, entirely new forms should be filled out and transmitted. The Patchogue Staging Area received a modified form for bus dispatching and this created a lot of confusion in the staging area.

5. Of those Traffic Guides questioned, all were very familiar with their traffic guide duties. Several however were still not clear on the procedure regarding reaching certain exposures, i.e. 3.5 Rem and 5 Rem. This will continue to be stressed in future training sessions.

Summary:

This is the first LERO drill held since the February 13 exercise and the first drill with Shift 2 since the Fall. Many of the participants were new to LERO and unfamiliar with their procedures and job functions. Several new concepts were also exercised for the first time. Overall response by the participants can be classified as poor, however due to the nature of the drill and the participants, this was not totally unexpected.

During the post drill critique, emphasis was placed upon rapid and accurate communications flow within the EOC and to outside facilities, i.e. Staging Areas, ENC and the general public. This is especially true during an evacuation when the evacuation process is impeded and a radioactive release is imminent or in progress.

This is the first time since the exercise that a traffic impediment was simulated during a drill. The response to the two impediments was generally good for the first one and somewhat poorer for the second one. The response by the public information group in getting the information out to the general public was not as rapid as it should have been. Information flow to other groups within the EOC, i.e. the Radiological group was almost non-existent.

LERIO will continue to emphasize the response to traffic impediments in all future drills and training sessions.

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October 31, 1986

0630-031-NY-017

TO:

FROM:

SUBJECT: Drill Report for September 10, September 17 and
October 1, 1986 for LERO

Background:

As part of the quarterly Emergency Preparedness drill program, drills were held on September 10, September 17 and October 1, 1986 to test the response of the Local Emergency Response Organization's (LERO) to a simulated emergency at the Shoreham Nuclear Power Station (SNPS). The purpose of the drills was to exercise LERO's ability to implement the Offsite Radiological Emergency Response Plan Implementing Procedures (OPIP's) and to train new personnel to improve their ability to respond to an emergency, make appropriate recommendations to the public and implement those recommendations. All sections of LERO participated in the drills with the exception of the Emergency News Center on September 17, LERO Relocation Center and Family Tracking on September 10. The facilities which did participate included the Local Emergency Operations Center (EOC), the Emergency Worker Decontamination Facility (EWDF), Patchogue Staging Area (PSA), Port Jefferson Staging Area (PJSA) and Riverhead Staging Area (RSA). Due to the revisions being made in the plan, the Relocation Center was not tested at all. Only 1/3 of the field personnel were exercised during each of the three drills. All field workers performed their normal emergency duties with the exception of the bus drivers who were involved in a special training session to familiarize them with all bus yards and transfer points.

Emergency Preparedness Drill Scenario 7A Revision 0 (objectives attached) was used for all three drills. Shift 3 participated on September 10 and 17, and Shift 2 participated on October 1. Shift 3 had not drilled as a team since late in 1985, and Shift 2 was last drilled in June 1986. The purpose of drilling Shift 3 on two consecutive weeks was to allow the participants to use the first week as a learning process, and to allow the new members of the organization to become familiar with their new positions; and the second week would be conducted as a more normal "hands off" drill.

All LERO members were pre-staged, i.e. told to report to their work locations at preassigned time, rather than exercise the normal notification and call out procedures. To vary the scenario seen by Shift 3 personnel the EOC staff was told to report at 9:30 AM on September 17, rather than 8:00 AM. In

addition the type and location of the traffic impediments were changed for the September 17 drill.

Revision 7 to the Offsite Radiological Emergency Response Plan and Procedures was in effect at the time of the drills and all persons were tested to that revision. Specific objectives to demonstrate the response to this revision were as follows:

- o Demonstrate the ability to assess the effect of road impediments upon evacuation traffic and develop and implement timely response actions. These actions may include rerouting and the broadcast of an associated EBS message, as necessary.
- o Demonstrate the ability to pre-assign Traffic Guides to Traffic Control Posts within the two mile EPZ and to dispatch the Traffic Guides in an expeditious manner at the appropriate time.
- o Continue the bus driver training to ensure bus drivers are familiar with all bus yards and transfer points.
- o Reinforce the concepts of dosimetry and KI.

Scenario Objectives:

Attached

Below is a summary of the major comments generated by the Observer/Controllers during the series of drills.

September 10, 1986

Emergency Operations Center

1. The EOC was staffed and activated within 45 minutes of the time the players were told to report. This is a very good response. All personnel were actively helping to set up the facility.
2. The Coordinator of Public Information was participating in his first drill, as were many of the people on his staff. As such the controller assigned to that area was forced to walk the players through their procedures. The EBS messages for the traffic impediments were slow in being generated. The wording was ambiguous and not concise.
3. One EBS message out of approximately 7 was broadcast without the sounding of the sirens. Better coordination is needed between the Director of Local Response and the Coordinator of Public Information.
4. Several communications problems occurred during the day but were attended to and were repaired; the TSO in the public information area, the dedicated line between the EOC and PJSA and the radios of PSA and PJSA. The staff was able

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to make use of the backup systems available.

5. The Radiation Health Coordinator (RHC) ordered the ingestion of KI prior to performing the calculations necessary for the technical justification. This omission was pointed out at the post drill critique.

6. Security was not observed to perform accountability checks of the EOC and a sweep of the facility to check for improper or non-existent identifications. What security did do was have each person sign out as they left the facility and sign back in as they returned, however this procedure was not strictly adhered to.

7. The dose assessment staff in the EOC had difficulties in obtaining data from the dose assessment staff in the EOP. Only one (1) Part II RECS message was received during the drill. In addition, the lines of communication for technical data was almost non-existent. This matter was brought to the attention of the Emergency Preparedness group and will be an item for further discussion and training.

8. Response to the traffic impediments was generally good. The Traffic Engineer was instrumental in developing rerouting schemes and there was good lines of communication among all groups in the EOC relative to the problems.

9. There was approximately a 1/2 hour delay at the Road Crew Communicator's desk in getting the message transmitted to respond to one of the road impediments. It was stressed during the critique the importance of transmitting messages in a timely manner.

10. The use of message forms needs to be improved. It was observed that many people are using scraps of paper to transmit messages and therefore the appropriate copies are not being distributed, or that messages are being written on scraps of paper and then being incorrectly transcribed on the message forms.

Emergency Worker Decontamination Facility

1. The normal Brentwood Security was not prepared for the arrival of the emergency workers from the field and the workers were given different directions upon their arrival at Brentwood. In addition, the direction given the workers at the staging areas, was not correct and the workers did not report to the correct gate. The Emergency Preparedness group is aware of the problems and has ensured that Brentwood will be aware of the arrival of the emergency workers in future drills, and has revised the maps from the

staging areas to the to the EWDF.

2. The personnel reporting to establish the EWDF were not familiar with their jobs, and took no action until prompted by the controller.

3. The personnel were unfamiliar with the location of the storage rooms for EWDF equipment. The equipment checklist was not used per the procedure. The correct setup of the facility was demonstrated by the controller.

4. No check sources were available testing the survey instruments; several of the instruments had more than one calibration sticker with conflicting information; one instrument's cable and detector failed due to a short; two instruments went into continuous alarm; one instrument was completely dead. All equipment problems and shortages were brought to the attention of the Emergency Preparedness group and have been corrected.

Patchogue Staging Area

1. Due to the lack of experience of the participants, the set up of the facility was slow and undirected. No priority was given to the activation activities. The establishment of security and issuing of badges was also slow. These issues were discussed during the post drill critique.

2. Briefings conducted by staging area management were not very frequent. This led to a lack of information regarding the emergency within the staging area. The need to periodically conduct staff meeting and the need to keep the emergency workers informed of the status of the emergency was emphasized at the critique.

3. Due to the problem mentioned earlier concerning communications, personnel dispatched into the field were provided telephone numbers during the briefings. This showed good foresight on the part of the Lead Traffic Guide.

4. The dispatch of the Traffic Guides from the Staging Area was done in an efficient and timely manner. The Traffic Guides necessary for the two mile evacuation were preassigned and were issued their equipment. Upon the order to evacuate, they were dispatched and the average time to arrive at their posts was approximately 30 minutes.

5. In all cases the Traffic Guides who were questioned were knowledgeable in their individual tasks relative to traffic guidance, however of the 9 Traffic Guides questioned most of them were not aware of the maximum allowable dose, and the

proper procedures governing the use of KI. This will continue to be stressed in all future training.

6. The performance of the emergency field workers relative to the traffic impediment was satisfactory. They communicated the situation properly to the Staging Area and responded well to the direction of the Staging Area.

Port Jefferson Staging Area

1. Due to a turbine maintenance outage at Port Jefferson, the turbine floor was not available for the drill. As a result temporary arrangements had to be made to accommodate the large number of participants. A tent was erected outside the Staging Area. This additional problem compounded the lack of experience of the drill team and as a result the Controllers provided direction to the participants. This situation existed during the September 17 and October 1 drills.

2. The Traffic Guides for the two-mile evacuation were preassigned and were standing by prior to the evacuation order. Once the message to evacuate was received from the EOC, they were dispatched within minutes.

3. The response to the traffic impediment at Traffic Control Post #45 was very slow. There were repeated requests from the Traffic Guide as to the status of the road crew. The Road Crew never did arrive.

Riverhead Staging Area

1. Similar to the other Staging Areas, the personnel at Riverhead were slow to activate the facility. The controllers had to prompt and train the personnel during the drill as to their duties.

2. Several P.A. announcements were made during the day, however no staff briefings were conducted by the Staging Area Coordinator. It was pointed out during the critique that it is important to keep key coordinators apprised of emergency conditions on a regular basis.

3. The packets for the deaf notifications were missing from Riverhead and as a result this portion of the drill was not able to be demonstrated. This was pointed out to the Emergency Preparedness group and has been corrected.

4. The dispatch of the Route Spotters was delayed because the message from the EOC took 20 minutes to go from the Administrative Support Staff to the Lead Traffic Guide. The

importance of prompt handling of messages was stressed at the post drill critique.

5. The Road Crews which were dispatched from Riverhead arrived at their locations in a timely manner. They had a good general knowledge of road-clearing procedures, and maintained good communications with the EOC and other road crews.

6. Two Road Crews questioned were not aware of the proper procedures regarding the use of dosimetry and maximum exposure allowances. They were also not properly informed to take their KI tablets.

September 17, 1986

Emergency Operations Center

1. The participants were prestaged so that notification was not demonstrated. The setup and activation of the facility from the time the participants were told to arrive was approximately 1 hour. The activation of the facility was orderly and well coordinated.

2. The Command and Control of the EOC was handled well by the Director and the Manager.

3. The Coordinator of Public Information did a very good job in working with the Director in issuing EBS messages. The CPI anticipated well and there was no delay in issuing the messages.

4. The EBS message which was issued for the traffic impediment gave too specific information relative to the new traffic directions and rerouting. The messages should have been more general and should only have instructed the evacuees to follow the directions of the Traffic Guides. This was pointed out at the post drill critique.

5. The Radiation Health Coordinator did an excellent job in performing dose projections and assisting the Director in making the proper protective action recommendations. The posting of the DOE/RAP team field data was a little slow and this was pointed out to the RHC.

6. The overall response to the traffic impediment was good. Improvement could be made in generating the rerouting information and arriving at new evacuation time estimates.

7. Information flow from the Staging Area to the EOC needs improvement. At times messages were left on the

communicators desk for 10 to 15 minutes before it was transmitted to the proper individual in the EOC. In addition the flow from the EOC to the Staging Area could also be improved. The message indicating that an Alert had been declared was sent at 1038. The announcement was made at 1014.

8. At times when the key coordinators were at staff meetings, their phones would go unanswered. It was pointed out at the critique that all phones should be monitored and answered if the person is not at his desk.

9. The Special Facilities group performed well in carrying out their duties. All procedures were followed.

Emergency Worker Decontamination Facility

1. The set up of the EWDF was done in an efficient manner and quickly. The Decon. Leaders took charge of the personnel arriving and began assigning tasks. The status of the emergency was known to the staff by periodic briefings.

2. Several pieces of equipment had conflicting calibration stickers on them. This was pointed out to the Emergency Preparedness group for resolution.

3. There were several pieces of faulty equipment which were not recognized by the participants and were used to monitor the emergency workers. The equipment problem was pointed out to the Emergency Preparedness group and the error in not checking the equipment properly was pointed out to the participants at the post drill critique.

Patchogue Staging Area

1. In general, command and control of the facility was very good. The Staging Area Coordinator made good use of the personnel available to him.

2. The documentation of messages in the Staging Area was not done on the standard message form. Many messages were being written on blank pieces of paper and then later transcribed on the message form. This caused delays in delivering the message to the appropriate party and caused transcription errors and erroneous information being transmitted. The proper use of the approved message forms was reiterated at the post drill critique.

3. The preassigning of Traffic Guides for the two mile evacuation was done in a timely manner.

4. The Traffic Guides which were observed demonstrated adequate knowledge in their duties and responsibilities and also were knowledgeable in proper radiation and exposure control.

Port Jefferson Staging Area

1. The set-up and activation of the facility went very smoothly and was better organized than the drill on September 10 with the same crew.

2. The command and control of the facility by the Staging Area Coordinator was very good. He utilized the P.A. system effectively for general announcements and conducted briefings with his key coordinators as the need arose.

3. The preassignment of the Traffic Guides for a two mile evacuation was done promptly. The Lead Traffic Guides performed properly and knew their procedures well.

4. Response to the traffic impediments by the field workers was very good. The information flow to the staging area was timely and accurate. The Road Crew arrived within 17 minutes of the request for help from the scene of the accident at Oakland Ave. and Rte. 25A.

Riverhead Staging Area

1. The setup and activation of the facility proceeded smoothly and was accomplished in a timely manner.

2. The conduct of operations within the Staging Area were much improved over the previous week. Briefings were better conducted and were more complete. Communications between staging area personnel were improved.

3. The distribution of dosimetry was observed to be not well controlled. Emergency workers were arriving at the briefings near the completion of the session and were not afforded the benefit of a complete briefing. A better coordinated dosimetry briefing and issuing session was pointed out at the post drill critique.

4. The response by the Road Crew to the traffic impediment was timely. He arrived within 10 minutes of being requested. There was a problem however in the area of communications; several of the vehicles which are used for the road crew simulation do not have cigarette lighter receptacles for the radio power supply. This however is only of a concern during a drill when actual road crew vehicles are not used.

5. The Traffic Guides which were observed performed satisfactorily. Each arrived at his location in a timely manner and were knowledgeable in their procedures. They periodically updated the EOC of traffic conditions. The redirection of traffic following the traffic impediment was handled well. The Traffic Guides were observed to periodically check their dosimetry per the procedure.

6. The performance of the Route Spotter was very good. He was familiar with his procedures and was in contact with the EOC. His response to the simulated accident was prompt. He was observed to check his dosimetry periodically and was knowledgeable as to as to maximum exposure allowances.

October 1, 1986

Emergency Operations Center

1. The participants were prestaged. The facility was fully staffed and set-up within 45 minutes of the time the participants were told to report.

2. Only 2 general staff meetings were held by the Manager of Local Response. Several more general announcements were made to the EOC floor. It was pointed out at the critique that the information flow to the staff either through staff meetings or general status meetings could be improved.

3. The distribution of RECS messages to the EOC staff was very slow. This was due to the number of copies being distributed. It was pointed out at the critique that the distribution should be reduced to expedite that process.

4. The broadcast of the EBS messages was well coordinated with the sounding of the sirens and all messages were aired within 15 minutes of the decision to do so.

5. The handling of the traffic impediments in the EOC was done very well. All persons concerned exhibited a high level of concern and urgency. There was good coordination among all groups. The Traffic Engineer however, had to be prompted to develop revised evacuation time estimates based upon the rerouted traffic. The information flow into the public information office could have been improved so that they would have information immediately available to them to generate the EBS messages. These shortcomings were pointed out during the post drill critique.

6. The information flow between the EOF and the EOC in the dose assessment area was very good. Both organizations were comparing data and field team deployment was well

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coordinated.

7. The information flow from the EOC to the Staging Area was slow and as a result the field personnel were working with information and data that was up to 30 minutes old. The rapid and accurate transmission of information to the field was emphasized during the critique.

8. The generation of EBS Messages, Press Releases and Summary Sheets by the Public Information Staff in the EOC was very good. However the information flow from the EOC to the ENC was poor. Due to a malfunction of the TSO, and no alternate means of transmitting information to the ENC explored, the LERO Spokesperson in the ENC was not in "sync" with the SNPS Spokesperson during press briefings and press conferences. It was pointed out during the critique that it is imperative that both organizations represented at the News Center have the same information in the same time frame.

Emergency Worker Decontamination Facility

1. There were several pieces of equipment which were used during the drill which were not functioning properly or were used improperly; bad or dead batteries, broken connectors, wrong probe, open vs. closed window etc. The proper use and checking of the equipment was stressed at the critique. Equipment deficiencies were reported to the Emergency Preparedness group for resolution.

2. The status of the emergency was not regularly announced to the EWDF staff. The importance of timely information flow was pointed out during the critique.

3. The controller conducted several contamination scenarios which were presented to the participants for their resolution. In one instance the contamination was not found due to poor monitoring techniques, in another the monitoring personnel cross-contaminated the area by improper controls. These discrepancies were pointed out to the personnel during the critique.

Patchogue Staging Area

1. Briefings given by the coordinators to the Staging Area personnel were few in number and not specific enough. Dosimetry information was not repeated during the briefings to the field workers. During the critique it was pointed out that the staff must be kept up to date with respect to the status of the emergency and this is done by frequent and timely briefings. It was also pointed out that dosimetry

and exposure control procedures and criteria should be repeated as often as possible.

2. The Lead Traffic Guides needed guidance to perform their function and implement their procedures. This was due to the fact that they were relatively new to the position.

3. The message concerning the failed sirens was transmitted to the Staging Area by the EOC at 9:48 A.M. It was not until 10:25 A.M. that the Route Alert Drivers were dispatched. At the post drill critique it was stressed that message handling must be expedited especially when the dispatch of field personnel is involved.

4. The issuing of dosimetry and the dosimetry briefings got off to a slow start. However as the drill progressed, the dosimetry briefings improved as the personnel gained experience.

5. Information for transmittal was frequently given to the communicator verbally instead of written. The use of written messages and the procedure governing the handling of messages was discussed at the post drill critique.

6. Of the 5 Traffic Guides questioned, all were unclear as to the maximum allowable doses.

7. The Route Spotter questioned in the field was knowledgeable in his job function and was knowledgeable in dosimetry and exposure control.

8. The Route Alert Drivers questioned were knowledgeable in their job function and were knowledgeable in dosimetry and exposure control.

Port Jefferson Staging Area

1. Many personnel at the facility were new to LERO and were participating in their first drill. As such the more experienced personnel had to perform many of the tasks which otherwise could have been delegated. This detracted from the success of the drill.

2. The message to dispatch the preassigned traffic guides arrived in the Staging Area at 1245. This was approximately 13 minutes after the information relative to the evacuation protective action recommendation was known to the evacuation group in the EOC. This time could be reduced. The traffic guides were dispatched from the Staging Area slower than previously due to confusion arising when three separate dispatch messages arrived in the Staging Area within a few

minutes of each other. There was also confusion relative to the procedure for one-way traffic flow.

3. The briefing of the players and the issuing of dosimetry by the Dosimetry Record Keepers was good. The briefings were clear and concise. The DRK's displayed a good knowledge of their procedures.

4. Several prompts were issued by the Communications Controller to the Staging Area Coordinator to issue updates to the EOC relative to facility status and to request status reports from the EOC. During the post drill critique it was stressed that the information flow is a "two-way street" and that the lines of communication must continually be open.

Riverhead Staging Area

1. Similar to the situation at Port Jefferson many of the players were new to their position and had to be walked through their jobs either by more experienced people or by the controllers.

2. The message to dispatch the bus drivers following the recommendation by the EOC to do so was very late getting to the Staging Area. It was not until 1:30 P.M. that this information was available in the Staging Area and only after the Bus Dispatcher requested it from the EOC. Another message received in the Staging Area at 1:40 P.M. indicated that a release had occurred at 12:35 P.M. The bus drivers were dispatched into the plume without prior knowledge. At the critique it was pointed out that this type of delay in message transmission and working with information which is very old can have negative results as was demonstrated in this case.

3. The dispatch of the Traffic Guides for the 2 mile evacuation was done promptly following the instructions to do so by the EOC.

Summary

The concept of conducting drills on consecutive weeks with the same team proved to be beneficial especially in the Staging Areas. Shift 3 personnel were better able to cope with the emergency on September 17 than they were on September 10. Shift 2 on October 1, did not perform as well overall primarily due to the fact that they had not drilled since June.

The assessment of the response to the special objectives itemized in the "Background" section of this report is as follows:

o The ability of the EOC staff to recognize and to develop a plan to counteract impediments to traffic were generally good. Communications within the EOC relative to the impediment and the cooperation of the various groups involved were good. The use of the Traffic Engineer proved to be very valuable in developing recommendations for alternate evacuation routes, however more emphasis should be placed on rapidly generating new evacuation time estimates, even if they are first order approximations, so that a more informed decision can be made. In addition more emphasis needs be placed on the roll of the Public Information group. EBS messages need to be streamlined concerning the impediment information and what the general public need know. The flow of information into the Public Information Office needs to be improved so that the messages can be generated in more expeditious manner.

The response of the Staging Area to traffic impediments was also generally good. The flow of information within the Staging Area and between the Staging Area and the field needs to be improved. There is considerable delay caused by the handling of messages. The response of the field forces to the impediment was good. Generally, most of the field personnel were knowledgeable in their procedures and would have been able to handle the situation in the field without too much difficulty.

o The procedure to pre-assign Traffic Guides for the two mile evacuation was demonstrated very well. The staff at the Staging Areas knew the procedures and were able to carry them out. The dispatch of the Traffic Guides to the field once the order to do so was recieved from the EOC was generally good. Some improvement could be attained in the area of establishing one-way traffic flow per the procedures. Once dispatched, the Traffic Guides were able to locate their positions and establish the post in a reasonable amount of time.

o The continuation of the bus driver training did occur during this drill series. The results of that training is included in a seperate report.

o The concepts of dosimetry and KI were reinforced by the controllers and the players during the briefings held by the Dosimetry Record Keepers. However, when questioned in the field by controllers, responses still showed a lack of understanding by some of the players. Continued education in this area is needed.

One of the major areas of concern during this drill series continues to be the communications between the EOC and the Staging Areas. Long delays in getting information to the Staging

Areas were experienced throughout the drills. Much more emphasis needs be placed on communications, both in accuracy and timeliness. Delays in the response by the Staging Areas can be traced back to delays in transmitting information or instructions by the EOC. The information flow from the EOC to the ENC also proved to be major deficiency noted in one particular drill. It appears that the common denominator in communications delays is the EOC, and emphasis must be placed in training that facility.

The information available to the staff at a particular facility, i.e. the EOC of the Staging Area is a function of how well, how often and how accurate the staff briefings are. One of the major reasons for a lack of available accurate information was the lack of proper staff briefings. During future training sessions this area of communication will be stressed.

Another area of communications that has been a problem in the past, and is still a problem with certain shifts, is the communications link between the EOC and the EOF in the area of dose assessment. The exchange of information from the EOF to the EOC needs to be improved. This will continue to be examined in future drills where the EOF and the EOC are both participating.

March 4, 1987

D.M. Crocker

Drill Report for December 2 and December 10, 1986 for LERO

Background

As part of the quarterly Emergency Preparedness drill program, drills were conducted on December 2 and December 10, 1986 to practice the response of the Local Emergency Response Organization (LERO) to a simulated emergency at the Shoreham Nuclear Power Station (SNPS). The purpose of the drills was to exercise LERO's ability to implement the Offsite Radiological Emergency Response Plan Implementing Procedures (OPIP's) to improve their ability to respond to an emergency, make appropriate recommendations to the public and implement those recommendations. All sections of LERO participated in the drills with the exception of the LERO Relocation Center and the Evacuee Reception Centers. The facilities which did participate included the Local Emergency Operations Center (EOC), the Emergency Worker Decontamination Facility (EWF), Patchogue Staging Area (PSA), Port Jefferson Staging area (PJSA), Riverhead Staging Area (RSA), Family Tracking and the Emergency News Center (ENC). Only 1/2 of the field personnel were exercised during each of the two drills. All field workers performed their normal emergency duties with the exception of a few bus drivers who were involved in a make-up session to familiarize them with bus yards and transfer points.

Emergency Preparedness Drill Scenario 8A Revision 1 was used for the December 2 drill and Scenario 7A Revision 1 for the December 10 drill. Shift 1 participated in both drills. They were last drilled in the February 13, 1986 exercise. The purpose of drilling Shift 1 on two consecutive weeks was to allow the participants to use the first week as a learning process to become familiar with the latest procedures and the second week to reinforce their knowledge gained during the first drill.

All LERO members were pre-staged, i.e. told to report to their work locations at preassigned time, rather than exercise the normal notification and call-out procedures. This provided the opportunity to brief LERO personnel on procedure changes and reinforce earlier training on OPIP revisions.

Revision 8 to the Offsite Radiological Emergency Response Plan and Procedures was in effect at the time of the drills. All persons were drilled to that revision.

Scenario Objectives

The following is a summary of how well LERO performed the scenario objectives. The LERO objectives were the same for both scenarios and are listed in Attachment 1.

EOC Objective 1

December 2 &
December 10:

Initial and follow-up communications were accurately and timely received. RECs messages from the TSC and EOF were telecopied to the EOC to prevent any misinformation.

This objective was met for both drills.

EOC Objective 2

December 2:

LERO EOC members were told to report at 0800. The EOC was fully staffed and operational at 0845. However, the facility was not declared activated until 0910 because the TSC/EOF staff were not pre-staged and were thus, not available. The Manager informed the Lead Controller of this and it was deemed acceptable to him.

December 10:

LERO EOC members were told to report at 0800 with the EOC being declared activated at 0848.

EOC activation for both drills was adequate. This objective was met. During the February 13th exercise, LERO EOC members began arriving at 0707 with the EOC being declared activated at 0810.

EOC Objective 3

December 2:

Rosters could not be found by the Lead Communicator. The Equipment Controller for the EOC claims the rosters were on the cart but must have been misplaced during set-up. This objective was not met. The critique emphasized the importance of these rosters.

December 10:

Rosters were available to the Lead Communicator and he verified the ability to maintain 24 hour staffing. This fulfilled the objective.

EOC Objective 4

December 2 &
December 10:

No shortage of space, equipment or supplies was observed during these drills. This objective was met.

EOC Objective 5

December 2 &
December 10:

As stated in the objective, the RECS communications between the state and county were simulated. In addition, communications with FEMA, EBS station, local schools, hospitals and ambulance companies were simulated. For December 10, communications with the radiological monitoring teams were also simulated (this was not practiced on December 2). All other communications were practiced and found satisfactory. On December 2, the EOC had minor difficulty receiving data from the EOF via the dedicated line due to background noise by personnel in the room. However, this did not hinder any response to the scenario and did not recur during the December 10 drill. This objective was adequately met.

EOC Objective 6

December 2:

Security was unable to locate their box of procedures for 20 minutes during the drill due to it being misplaced during set-up. However, Security was familiar enough with the procedures to do without them. They also obtained pertinent procedures from the Manager and Director. Therefore, their inability to locate their own procedures for 10 minutes did not hinder their performance.

Finally, Security did not maintain a log-in/log-out policy during the course of the drill. This should be done per procedure to maintain accountability in the EOC.

The need to maintain accountability with the log-in/log-out procedure was stressed in the Critique and a form will be provided to Security in a later revision of the OPIPs to assist them in this matter. This objective was partially met.

December 10:

No problems were observed during the drill. This objective was met.

EOC Objective 7

December 2:

Six staff meetings were held during the course of the drill which is adequate. All messages were properly logged by the Lead Communicator; however, some persons (approximately 20% estimated by the EOC Lead Controller) wrote messages on a scrap sheet of paper rather than standard LERO message forms. Status boards were observed to be kept up-to-date and communications were observed to be transmitted accurately. Proper use of message forms was discussed in the critique.

Status updates from the EOC contained conflicting information. For example, at 1215 an EOC message was sent to the Riverhead Staging Area instructing field personnel to don their protective clothing and inject KI. At 1307, a status update was sent to Riverhead indicating no change in status with no recommendation to don protective clothing or inject KI. This problem was addressed and corrected for the December 10 drill.

This objective was partially met.

December 10:

Five staff meetings were held during the course of the drill which is fewer than December 2 but is still adequate. Two general status updates were made by the Lead Coordinators. All messages were properly logged by the Lead Communicator.

The information contained in the communications relative to the brush fire on the Long Island Expressway changed as the message was transmitted through the LERO Organization. The message stated that a brush fire was causing a complete blockage of the east and westbound lanes of the Long Island Expressway and also the north and southbound lanes of Patchogue-Mt. Siani Road. (Refer to LERO Message Nos. 14 and 14A). The Lead Controller at the EOC decided to initiate the message at the ENC rather than at the EOC as the message dictates. In the transmittal of the information from LERO ENC personnel to the EOC, the information on which roads were blocked was left out. This information was given to the Traffic Group at 0934. The Traffic Group attempted to determine which roads were blocked by seeking information from the Patchogue Staging Area. The Public Information Group was prompted by the Public Information Controller to re-contact the ENC for the road blockages. This complete information was given to the Traffic Group at 0942. However, the Traffic Group continued its efforts to verify the road blockages. Ultimately, at 1025, through information provided by the Patchogue Staging Area (Patchogue Traffic Controller simulating a Route Spotter per the scenario) the information was that only the westbound lanes of the Long Island Expressway were blocked. However, the EOC began investigating re-routing, if necessary, and the fire's effects on the evacuation time estimates at 1008.

The importance of obtaining all information was discussed with the Public Information staff. In addition, the necessity of verifying reliable information (i.e. radio broadcast) was discussed at the critique.

In an announcement to the EOC, the phrase "10-mile keyhole" was used to describe the area to pre-stage buses which led to some confusion by the Transportation Group. However, this did not slow their response since these players are well versed in determining zones based on wind direction. Still, the exact zone letters should be used and was mentioned in the critique.

The Emergency Planning Group developed a new method to improve the speed and accuracy in which status updates are transmitted to the Staging Areas. This new method was tested by LERO members in this drill. Instead of being given to the Evacuation Support Communicators for transmission to the Staging Areas, the Lead Communicator, with help from the Administrative Support Staff, telephoned status updates directly. In addition, the Manager reviewed and approved all messages prior to their transmittal to ensure accuracy. This process worked well. This change will be reflected in a later revision to the procedures.

This objective was partially met.

EOC Objective 8

December 2: The Director of Local Response was in control throughout the drill and decisions were handled in a proper and expeditious manner. This objective was met.

December 10: The Director of Local Response was in control throughout the drill; however, the PAR decision took from 1220 to 1250. The Director was trying to obtain information from the EOF relative to the declaration of the General Emergency and the rationale for their protective action recommendations. The EOF recommended evacuation of zones A-J at 1225. The RHC and the Nuclear Engineer tried to obtain data from the EOF to make their independent assessment of the potential for containment failure. Since the persons in the EOF were in a meeting at the time, the RHC and the Nuclear Engineer were content to wait. At 1250, the Lead Controller prompted the Director to call for an evacuation of the affected zones so as not to impact the remainder of the scenario. This objective was not adequately fulfilled. In the critique, the RHC and the Nuclear Engineer were informed that they weren't forceful enough in trying to obtain the data and they should have informed the Director so that he might try to obtain the information from another source.

EOC Objective 9

December 2: The Alert was declared at 0842. The Director decided to recommend early school dismissal at 0908. Sirens were activated at 0913 and an EBS message with early dismissal of schools was sent at 0914. The Public and Private School Coordinators obtained a copy of the EBS message and contacted simulated schools.

December 10: The Alert was declared at 0808. The Director decided on an early dismissal of schools and sent an EBS message at 0828. Sirens were activated at 0834 and EBS message with early dismissal of schools sent at 0833-0836. The Public and Private School Coordinators obtained a copy of the EBS Message and contacted simulated schools.

Response at both drills was adequate; this objective was met.

EOC Objective 10

December 2: EBS Message 1 - Alert declared at 0842.
Director decides on PARs at 0908.
Sirens sounded at 0913 (simulated).
EBS aired at 0914 (simulated).

EBS Message 2 - Site Area Emergency declared at 1010.
Director decides on PARS at 1027.
Sirens sounded at 1030 (simulated).
EBS aired at 1031 (simulated).

The section referring to placing animals on stored feed was deleted and a follow-up message had to be issued. This item was discussed at the December 9 critique with the Lead Controllers and the problem did not recur at the December 10 drill.

EBS Message 3 - General Emergency declared at 1132.
Director decides on PARs at 1149.
Sirens sounded at 1154 (simulated).
EBS aired at 1155 (simulated).

EBS Message 4 - This is a Traffic Impediment message and doesn't fall into the 15 minute criteria. Refer to EOC Objective 11 for further information.

EBS Message 5 - This is a Traffic Impediment message and doesn't fall into the 15 minute criteria. Refer to EOC Objective 11 for further information.

- December 10:
- EBS Message 1 - Alert declared at 0808.
Director decides on PARs at 0828.
Sirens sounded at 0834 (simulated).
EBS aired at 0833-0836 (simulated).
 - EBS Message 2 - Site Area Emergency declared at 0953.
Director decides on PARs at approx. 0955.
Sirens Sounded at 1002 (simulated).
EBS aired at 1003-1006 (simulated).
 - EBS Message 3 - General Emergency declared at 1202.
Director decides on PARs at 1205.
Sirens sounded at 1219 (simulated).
EBS aired at 1218 (simulated).
 - EBS Message 4 - Director decides on PARs at 1248.
Siren sounded at 1255 (simulated).
EBS aired at 1257-1302 (simulated).
 - EBS Message 5 - This is a Traffic Impediment message and doesn't fall into the 15 minute criteria. Refer to EOC Objective 11 for further information.
 - EBS Message 6 - Director decides on PARs at 1355.
Sirens sounded at 1407 (simulated).
EBS aired at 1408-1415 (simulated).
 - EBS Message 7 - This is a Traffic Impediment message and doesn't fall into the 15 minute criteria. Refer to EOC Objective 11 for further information.

All EBS Messages with protective actions met the objectives for both drills.

EOC Objective 11

December 2: The Traffic Group expeditiously handled two evacuation free play impediment messages that were introduced per the scenario in the field. Specifically, the first impediment, a gravel truck and three passenger cars was introduced at 1315 from a Road Crew on location. The message was recorded accurately and completely by the Evacuation Support Communicator and by 1320 the Evacuation Coordinator and the rest of the Traffic Group were informed of the impediment. Immediately the Traffic Engineer started evaluating the problem under direction of the Evacuation Coordinator and additional Road Crews were dispatched to the scene. By 1328 the

Manager, Coordinator of Public Information and Transportation Support Coordinator were informed. At 1334 the Road Crew informed the EOC that removal of the impediment would take more than two hours. Previously at 1328, the Traffic Group followed procedures and had obtained approvals on the proposed re-routing and had contacted TCP 10 by radio (as per procedures). A total of 13 minutes elapsed from notification of the impediment and the implementation of re-routing. The Director decided to issue EBS Message No. 4 with traffic impediment information at 1330 and the EBS message was broadcast at 1341 (simulated). The sirens were sounded at 1340 (simulated). By 1337 the Manager briefed the EOC on the impediment and stated that an EBS message was being broadcast to alert motorists of the situation. By 1349 an approved bus re-routing scheme was developed by the Traffic Engineer and the Transportation Support Coordinator. The Evacuation Support Communicator transmitted this information at 1402. Special Population Coordinators, whose functions may have been impeded by the accident, were informed at 1358. This exhibited very good control and coordination by the Evacuation Coordinator and all other functional groups.

At 1404 Route Spotter 1005 called in a fuel truck impediment. The Evacuation Support Communicator quickly and accurately transcribed the message and gave it to the Traffic Control Coordinator immediately. By 1410 the entire Traffic Group was informed. By 1412 the Traffic Engineer started working on re-routing because the Evacuation Coordinator realized it would be difficult to remove a leaking fuel truck. After following all procedures, at 1425 re-routing information was given to the Lead Traffic Guides at the Staging Areas. A total of 21 minutes elapsed from the impediment notification to transmission of re-routing instructions. The Traffic Control Point Coordinator was informed by the Traffic Controller that response may have been faster if the Traffic Control Points were radioed from the EOC with re-routing instructions as was done in the first impediment. Also, at 1425 the Mt. Siani Fire Department was called (simulated) and was asked to respond as was the owner of the fuel truck. Bus re-routing was completed by the Traffic Engineer by 1450 and was transmitted to the Bus Dispatcher by 1455. EBS Message No. 5 describing re-routing was approved by the Director at 1418, broadcast (simulated) at 1437 and sirens were sounded (simulated) at 1436.

Response to the road impediments was organized and efficient due to good communication between and within the Traffic Group and other groups and upper EOC management. This objective was met for both impediments.

The EBS Messages for these Traffic Impediments contained specific re-routing information. Contents of EBS Message issued for Traffic Impediments was discussed in the December 9 critique with the Lead Controllers. The Emergency Preparedness Group is in the process of developing general guidelines of what should be included in these messages. There are no Federal requirements. In the December 10 drill, the EBS Messages for Traffic Impediments were improved over those for previous drills.

December 10:

Four impediments were introduced per the scenario. The first impediment, a brush fire, was designed to test only the EOC's response to an impediment that blocked a major artery (LIE) and might possibly affect the evacuation time estimates. No field workers were dispatched and the fire was extinguished before the evacuation per the scenario. The second impediment was removable and its intent was to pre-occupy the EOC while an evacuation was in progress and when the third and fourth immovable impediment were introduced. The third and fourth impediments were designed to test LERO's re-routing abilities.

Brush Fire Impediment - LIE & CR 83

The EOC was informed of the fire by the ENC at 0930. The Public Affairs group gave the message to the Traffic Group and the Evacuation Coordinator was informed as of 0942. By 0954 the Evacuation Coordinator instructed the Evacuation Route Coordinator to get a Route Spotter out to check out the fire. The Traffic Engineer started working on potential re-routing, should it be necessary. At 0955 the Site Area Emergency was declared. The Route Spotter responded as of 1025 (Controller via radio at Patchogue, no personnel actually were dispatched to the fire per the scenario). The Traffic Engineer discussed the impact on the evacuation time estimates (roughly double) with the Radiation Health Coordinator and discussions took place on the possible effect on PARs. After questioned by the Traffic Controller, they indicated that this may sway a PAR toward sheltering if conditions degraded further. The objective of this impediment was adequately fulfilled by EOC members. Further details on problems with communications on the brush fire are included in EOC Objective 7.

Duck Truck Impediment

This was introduced at the ENC at 1200. An EOC Public Information staff member gave the message to the Evacuation Coordinator at 1223. This delay was because the ENC Controller had transmitted the message incorrectly indicating the EOC was already aware of the incident. The Public Information Controller corrected the response. At 1226 a Route Spotter was dispatched to report on the accident. Note that this was prior to an evacuation order. Previously the Traffic Control Coordinator and the Evacuation Route Coordinator had decided to dispatch the Evacuation Route Spotters because some were already at the Staging Areas. This was done without consulting with the Evacuation Coordinator. By 1249 the Route Spotter reported the extent of the accident (T = 23 min.). By 1252 the Evacuation Coordinator wanted a tow truck sent to the scene even though there was not an evacuation yet. By 1353 this Road Crew reported to the scene (T = 61 min. (Note that evacuation order came at 1254). By 1400 the duck truck had been cleared. The reasons for the delay was discussed with the Traffic Group at the drill critique.

Cement Mixer Impediment

This was introduced at the desk of the Evacuation Support Communicator at 1303. By 1314 the Evacuation Coordinator ordered the Road Logistics Coordinator to send out two Road Crews while the Traffic Engineer developed alternatives. Re-routing was presented at 1317 and was approved. At 1327 the Traffic Control Coordinator relayed modifications to the Riverhead Lead Traffic Guides because the Traffic Control Points were not yet manned. The appropriate Traffic Control Points were contacted by the Staging Area at 1331. Very good response by the Traffic Engineer (T = 14 min.). Bus re-routing was developed in 13 minutes (1330). The total time for the entire response was 28 minutes. This time was very good. EBS Message No. 5 with this traffic information was approved at 1330 and was broadcast between 1334-1339 (simulated). Sirens were sounded at 1333 (simulated).

Cesspool Truck Impediment

This was introduced at 1400 to an Evacuation Support Communicator. Information was correctly disseminated and by 1412 the Traffic Engineer developed a re-routing scheme (T = 12 min., very good response). After approval was made, the Traffic Control Point Coordinator transmitted re-routing information directly to Traffic Control Points 63 and 64 via radio at 1417. Total response time was T = 17 min. (good response time). Bus operations were not affected by this impediment. EBS Message No. 7 with this traffic information was approved at 1432 and broadcast at 1437 (simulated). Sirens were sounded at 1436 (simulated).

This objective was partially met with the exception of the Duck Truck accident. As stated previously, the reasons for the delayed response was discussed at the drill critique.

EOC General Comments

December 2: The procedure for the periodic estimation of total population exposure was not demonstrated. However, the procedure allows for this estimation to be completed after the initial crisis is over and, due to the compact nature of the scenario, time would not permit this to occur.

For the pre-staging of buses, the Manager and Evacuation Coordinator wanted to wait until all of the required Bus Drivers were at the Staging Areas. In fact by procedure, the order to pre-stage should be issued regardless of the number of drivers available and the Staging Area should assume the responsibility for dispatching the Bus Drivers at the proper time. This was discussed at a critique held on December 9, 1986 with the Lead Coordinators.

At the EWDF, two of the twelve RM-14s (#5253 and #5230) used during the drill were nearly discharged at the start of the drill. The Decontamination Leader directed the monitoring personnel to check battery levels every 15 minutes and change any that were below the acceptable level in anticipation of this problem. This was excellent guidance on the part of the Decontamination Leader. This equipment maintenance problem was brought to the attention of the Emergency Preparedness Group and has been resolved.

The Record Keepers at the EWDF were confused on the correct serial numbers to use for the TLD's. LERIO is in the process of highlighting the serial numbers to avoid this confusion in the future.

December 10:

Again, estimation of total population exposure was not performed; however, it was considered. The procedure was not demonstrated because the drill was terminated prior to its implementation. The practice of this procedure will be emphasized in future drills.

At the EWDF, a field worker simulated to be contaminated walked approximately 20 feet in a clean area before being stopped by an EWDF person. This was discussed at the drill critique.

One problem was encountered with Family Tracking which concerned the EOC at Brentwood. The people receiving the calls in Brentwood were not returning the confirmations of delivery of the message to Family Tracking, they were returning them to the original caller instead. Procedures call for them to call back to Family Tracking when the message has been delivered to the LERO worker. Family Tracking would then call the original caller to confirm that the LERO worker had been reached. This item will be stressed at future training sessions and drills.

The Special Facilities group and the Ambulance Coordinator did a very good job in performing their duties. The Home Coordinator however did not get a listing of the Reception Hospitals prior to calling the homebound when the evacuation of additional zones P and S were called for. This was discussed at the critique and will be stressed in future training sessions and drills.

A message was received from the field that an individual had received 4 Rem and was requesting authorization for additional exposure. The location of this individual was outside the radioactive plume and his reported exposure was never questioned. In addition the Director authorized exposure up to 10 Rem and the RHC was not consulted. This is a direct violation of the procedure and was discussed at the critique.

The RHC assumed that no release was in progress at 1245, yet the Assistant RHC had information which was obtained 10 minutes earlier that field readings indicated 25-30 mr/hr near the site boundary. This was due to contradictory data being given to the Assistant RHC by the Lead Controller. The data supplied by the Controller was lower than the data supplied by the EOF. This was a problem with the scenario and not a problem with the players.

Staging Areas Objective 1

December 2 &

December 10: Port Jefferson, Patchogue and Riverhead

Emergency notifications were received in a timely manner. This objective was met.

Staging Areas Objective 2

December 2: Port Jefferson

LERO Group 1 and 2 members were told to report at 0800. The Port Jefferson Staging Area was declared activated at 0845. The Staging Area was ready at 0830, but they delayed stating that the Staging Area was activated until the EOC was ready to receive messages at 0845.

Patchogue

LERO Group 1 and 2 members were told to report at 0800. The Patchogue Staging Area was declared activated at 0830.

Riverhead

LERO Group 1 and 2 members were told to report at 0800. The Riverhead Staging Area was declared activated at 0815.

These times were adequate; this objective was met for all Staging Areas.

December 10: Port Jefferson

LERO Group 1 and 2 members were told to report at 0800. The Patchogue Staging Area was declared activated at 0820.

Patchogue

LERO Group 1 and 2 members were told to report at 0800. The Patchogue Staging Area was declared activated at 0822.

Riverhead

LERO Group 1 and 2 members were told to report at 0800. The Riverhead Staging Area was declared activated at 0825.

These times were adequate; this objective was met for all Staging Areas.

Staging Areas Objective 3

December 2 &
December 10:

Port Jefferson, Patchogue and Riverhead

Rosters were available to the Staging Area Coordinators to fulfill this objective.

Staging Areas Objective 4

December 2: Port Jefferson

Sufficient space, parking, equipment and supplies were available to activate and support the Staging Area activities. One minor problem with equipment was that not enough magnetic-type antennas were available. Three Traffic Guides had to use the clip-type antennas and attach these to their windows since their cars did not have rain gutters. This did not prevent the Traffic Guides from performing their duties, however, the Emergency Preparedness Group is addressing the concern.

Patchogue and Riverhead

Sufficient space, parking, equipment and supplies were available to activate and support the Staging Area activities.

December 10: Port Jefferson, Patchogue and Riverhead

Sufficient space, parking, equipment and supplies were available to activate and support the staging area activities. The concern about antennas for Port Jefferson was not resolved for this drill and is being addressed by the Emergency Preparedness Group.

This objective was met for both drills.

Staging Areas Objective 5

December 2: Riverhead

The radio at Riverhead used to communicate to the field was inoperable at 1125. The Riverhead Staging Area called for a radio repair technician and the radio was back in service at 1215. Due to the problems with the Riverhead radio the Eastport Substation Transfer Point Coordinator phoned in to the Bus Dispatcher at Riverhead informed him that both he and the Brookhaven Substation and could not radio Riverhead. He stated he would call in every 1/2 hour. As stated previously this problem was resolved at 1215. This did not affect field operations and demonstrated a resourceful approach to problems.

Port Jefferson and Patchogue

All communication links with these Staging Areas and the LERO EOC and field personnel were established and operated adequately.

This objective was met.

December 10: Port Jefferson, Patchogue and Riverhead

All communication links with these staging areas and the LERO EOC and field personnel were established and operated adequately. This objective was met.

Staging Areas Objective 6

December 2 &
December 10: Port Jefferson, Patchogue and Riverhead

Security was adequately maintained at these Staging Areas. It should be noted that only 1/2 of the field personnel were instructed to report per drill. This caused some problems with staffing security however security was maintained with available personnel. This objective was met.

Staging Areas Objective 7

December 2: Port Jefferson

All messages were accurately transmitted and put on the proper message forms. Updating of the status boards were not consistently kept up-to-date. Three updates from the EOC were received but on one, only some of the changes were reflected on the status board. Upon prompting, the status boards were corrected. The updating of status boards was stressed in the drill critique.

The PA system was regularly used to brief staging area personnel.

Patchogue

The entire communication staff was well trained in all aspects of their responsibilities, however, some messages were not formally documented on a message form (i.e., Bus Dispatcher to radio operator to inform Transfer Points to begin evacuation at 1250 was done verbally). Use of message forms was discussed at the drill critique.

Status boards were adequately kept up-to-date and briefings were held frequently. However, the Bus Driver briefings held by the Bus Dispatchers were not well organized. Bus Drivers came out of the briefings not knowing of their assignments or status of the emergency. This item was thoroughly discussed in the drill critique. There was no such problem in this group's subsequent drill of December 10.

The Staging Area Coordinator did not fill-out OPIP 4.1.4, Attachment 4 per his procedures and the Lead Coordinators did not document their critical actions/decisions. This was discussed in the drill critique and did not recur in the December 10 drill.

Riverhead

Messages were transmitted and recorded in an accurate and timely manner and were properly logged. However, status boards were not consistently maintained (i.e., at 1055 and 1115 the Staging Area received a status update but did not update board). In addition, status update announcements were lacking information and infrequent. This was discussed at the drill critique.

December 10: Port Jefferson, Patchogue and Riverhead

All three Staging Areas performed well in fulfilling this objective. However, stating and writing "THIS IS A DRILL" was sometimes omitted from communications. The use of this phrase was emphasized in the drill critique.

Staging Area Objective 8

December 2 &
December 10: Port Jefferson, Patchogue and Riverhead

The Staging Area Coordinators demonstrated that they were in charge and control of the overall response assigned to their Staging Areas. This objective was met for both drills.

Staging Area Objectives 9, 10 and 11

December 2: Port Jefferson

Transportation - Bus Dispatcher received message from EOC to dispatch Bus Drivers at 1110 for Miller Place Shopping Center to pre-stage and 1210 for Norwood Avenue for evacuation of all zones. The Bus Drivers were dispatched by 1130 for Miller Place and at 1210 for Norwood Avenue. (Note: Norwood Avenue Bus Drivers were assigned and ready to be dispatched at 1200. So, as soon as the order came in, they were dispatched.) All were at the Transfer Points in time to support the evacuation.

Pre-staged Transfer Points were contacted at 1211 by the Staging Area and directed to begin dispatching of buses on their routes at 1300. This fulfills the requirements of the procedures.

Curbside Pick-up was simulated for this drill and the controllers provided names of individuals to the Transfer Point Coordinators at Miller Place and Norwood Avenue. They were instructed to radio in these names between 1330 and 1430 (Refer to LERO Messages Nos. 34-38). The radioing of the names was performed at 1411 for Norwood Avenue and 1416 for Miller Place. Communication between the curbside Bus Drivers and Staging areas was established for curbside pickup and was adequate.

The Bus Dispatcher received message from EOC at 1509 to re-route buses due to fuel truck accident for Routes K5-6 and K4-5. At 1510, the Bus Dispatcher contacted the Norwood Avenue Transfer Point to inform him of the re-routing. He was informed that these routes were complete. This shows good communications.

Transfer Point Coordinators were dispatched to their points earlier (at 1015) prior to the dispatching order to support the Bus Driver Road Rally. (Refer to Staging Areas Objectives 13 and 14).

Staging Area objectives 9 and 10 were met for the Transportation Group.

Route Alert
Drivers -

Lead Traffic Guides received message of siren failures (Sirens #50 and #33) at 1025. The route for siren 50 was divided among 2 drivers; those drivers were dispatched at 1045. The route for siren 33 was divided among 3 drivers; those drivers were dispatched at 1046. These routes were completed by 1330. A slight delay in dispatching was a result of it taking 8 minutes to make copies of the zone maps for dividing up the routes. Note that no time frame for completing a route is required.

In addition, the Lead Traffic Guides received message to dispatch Route Alert Drivers for deaf notification at 1208. Dispatching began at 1215 and was completed by 1225. This time is adequate.

All Route Alert-Drivers phoned in upon completion of their routes to receive direction from the Lead Traffic Guides. This fulfills the requirements of the procedures.

Road Crews -

Lead Traffic Guides received message to dispatch Road Crews at 1208. Road Crews were dispatched at 1217. This time is adequate.

Road Crew 2011 was informed of the fuel truck accident at 1430. He was not asked to respond to accident; informed that fuel company would handle.

These objectives were met for the Road Crews.

Evacuation

Route Spotters - Lead Traffic Guides received message to dispatch Route Spotters at 1208. All Route Spotters were dispatched by 1225. This time is adequate.

Route Spotter 1005 radioed in the fuel truck accident at 1405 (Refer to LERO Message No. 42). The EOC contacted Route Spotter 1005 at 1414 to obtain further information and received it at 1415. The EOC contacted the Route Spotter at 1430 to provide dosimetry protection to Fire Department and Oil Company personnel responding (simulated) to accident. The EOC again contacted Route Spotter 1005 for update on accident at 1512.

As evidenced above, communications were established with Route Spotters and the EOC was able to provide directives. These objectives were met for the Route Spotters.

Traffic Guides - The General Emergency declared at 1132. PAR of Evacuation of Zones A-S decided at 1149. Traffic Guide posts to be manned sent to Port Jefferson at 1206 and received at 1208. Preassigned Traffic Guides required for a 0-2 mile evacuation (6) was dispatched at 1222. Remaining Traffic Guides were dispatched by 1247. The six preassigned Traffic Guides for a 0-2 mile evacuation arrived at their posts as follows: (Note that although 6 Traffic Guides are needed only 5 TCPS are required to be preassigned. 2 Traffic Guides report to TCP #5).

TCP #4	1244	1 Traffic Guide
TCP #86	1243	1 Traffic Guide
TCP #6	1258	1 Traffic Guide
TCP #5	1257	2 Traffic Guides
TCP #38	1246	1 Traffic Guide

This time frame is less than adequate because only 3 of the 5 Traffic Control Points were manned within 1-hour of the time the EBS Message was aired (1155). The inadequacy was not serious however, because the two remaining Traffic Control Points were manned within 63 minutes. Objective 11 was partially met for Port Jefferson.

Only 3 TCPs out of the 38 activated for this drill were unable to communicate with the Staging Area. These were TCPs 74, 113 and 50. Two of these radios (2100 used by TCP 74 and 1056 used by TCP 113) were used on December 10 and were operating well. Radio 2111 (used by TCP 50) was brought to the attention of the Emergency Planning Group and the problem will be resolved by the next drills.

During re-routing for the fuel truck impediment (at 1502-1510) TCP 56 could not be reached via radio by either the EOC, Port Jefferson Staging Area, or by TCP 55. These Traffic Guides were needed to implement the re-routing plan. Initial communication between the Port Jefferson Staging Area and TCP 56 was established at 1255 and TCP 56 radioed in at 1313 upon arrival at TCP. After interviewing a Traffic Guide at TCP 56, he informed me that he tried to reach the Staging Area to verify his re-routing responsibilities but the frequency was being used by others. He eventually did get through to the Staging Area at approximately 1320. At this time, he was told to report to the EWDF. During the time that TCP 56 was unreachable by his radio, the Lead Traffic Guide used good initiative by employing TCP 55 as an available means to contact TCP 56 directly. TCP 56 was aware of his responsibilities and would have assisted in the re-routing scheme (if time permitted) to ensure adequate

evacuation flow. TCP 55 was contacted and given the appropriate instructions for re-routing. The performance of these instructions by the Traffic Guides at TCP 55, however, were not observed as time did not allow for the performance.

Communications were established and maintained throughout the drill and the Staging Area and EOC were able to issue directives for re-routing. Objectives 9 and 10 were met by the Traffic Guides.

One of the 7 TCPs that the Port Jefferson Field Controller visited was not manned. This was TCP #40 and was visited by the Controller at 1335. TCP #40 did not arrive until 1351. This was because the Traffic Guide assigned to TCP #40 was last to receive dosimetry and briefing. The lateness of dispatch for this and four other TCPs were discussed during the critique to emphasize to the Lead Traffic Guide the importance of making sure these posts are manned in a timely manner. These problems did not recur in the December 10 drill.

Patchogue

Transportation - Staging Area received message from EOC to dispatch Bus Drivers at 1055 for pre-stage of zones A-J and at 1207 for evacuation of all zones. By 1145 the required General Population Bus Drivers were dispatched for pre-stage and by 1225 for the additional zones. Special Population Bus Drivers were dispatched by 1110 for pre-stage. No additional Special Population Bus Drivers were dispatched for additional zones since no Bus Drivers were available because only 1/2 of the required field members were participating per the scenario. All General Population Bus Drivers were at the Transfer Points in time to support the evacuation and all Special Population Bus Drivers returned to the Staging Area in time to receive their assignments to support the evacuation. Special Population Bus Drivers were dispatched on their assignments at 1245.

Pre-staged Transfer Points were contacted at 1237 and directed to begin dispatching of buses on their routes at 1250. This fulfills the requirements of the procedures.

Curbside Pick-up was simulated for this drill and the controllers provided names of individuals to the Transfer Point Coordinators at Brookhaven National Laboratory and Coram Plaza Shopping Center (Refer to LERO Message Nos. 34-38). This was performed at 1320 for Brookhaven National Laboratory and at 1355 for Coram Plaza. Communications were established for curbside purposes and were adequate. In addition, Special Population Bus Drivers assigned to Health Facilities notified the Health Facilities Coordinator upon completing their assignment.

Transfer Point Coordinators were dispatched to their points at 1120 and were at their Transfer Points by 1145.

These objectives 9 and 10 were met for the Transportation Group.

Route Alert
Drivers -

Lead Traffic Guides received message of siren failures (Sirens #19 and #45) at 1018. Both Route Alert Drivers were dispatched at 1025.

In addition, the Lead Traffic Guides received message to dispatch Route Alert Drivers for Deaf Notification at 1212. Dispatching was completed by 1219.

These time frames were adequate.

The Route Alert Drivers phoned in upon completion of their routes to receive directions from the Lead Traffic Guides. Deaf Notification was completed by 1414 and notification because of siren failure was completed by 1400. No time frame for completing

a route is required. Lead Traffic Guides will be encouraged to dispatch multiple Route Alert Drivers, when they are available, to expedite the Route Alerting Process.

Road Crews - Lead Traffic Guides received message to dispatch Road Crews at 1155. Road Crews were dispatched at 1200. This time is adequate.

Communications were established with the Road Crews by the EOC. Road Crews from Patchogue were not needed for this drill's Traffic Impediments.

These objectives were met for the Road Crews.

Evacuation
Route Spotters - Lead Traffic Guides received a message to dispatch Route Spotters at 1158. Route Spotters were dispatched at 1205. This time is excellent.

Communications were established with the Evacuation Route Spotters by the EOC. Route Spotters from Patchogue were not needed for this drill's Traffic Impediments.

These objectives were met for the Evacuation Route Spotters.

Traffic Guides - The General Emergency was declared at 1132. PARs of evacuation of zones A-S decided at 1149. Traffic Guide posts to be manned sent to Patchogue at 1200. Preassigned Traffic Guides required for a 0-2 mile evacuation (18 of the 21 required) were dispatched by 1213. 18 Traffic Guides were used since only 1/2 of the field personnel were invited per the scenario. This did not adversely affect the drill. Remaining Traffic Guides were dispatched by 1218 also.

The 18 preassigned Traffic Guides for 0-2 mile evacuation arrived at their posts (13 posts; some posts required more than one TG) between 1230 and 1258. (Note that the Traffic Guide for TCP 75 - one of the TCPs required for a 0-2 mile evacuation - was sent home because of illness. He was not replaced since no other Traffic Guides were available at the Staging Area and it was not necessary to call someone out). This time frame is less than adequate because some Traffic Control Posts were not manned within 1-hour of the time the EBS Message was aired (1155). The inadequacy was not serious however, because the posts were manned within 63 minutes, objective 11 was partially met for Patchogue.

No controller was sent to observe the times of arrivals for the Traffic Guides since no Patchogue Traffic Guides were needed for this drill's Traffic Impediments per the scenario.

Communications were established and maintained for the Traffic Guides. All Traffic Guides reported in by radio of their arrival at their TCPs by 1258.

These objectives were met by the Traffic Guides.

Riverhead

Transportation - Staging Area received message from EOC to dispatch Bus Drivers at 1115 for pre-stage of zones A-J and at 1200 for evacuation of all zones. By 1119 all required Bus Drivers for pre-staging were dispatched and by 1235 for evacuation of remaining zones. All Bus Drivers were at the Transfer Points in time to support the evacuation.

The pre-staged Transfer Points were not contacted per procedures to begin dispatching of buses on their routes 1 hour after General Public notified. As a result of this, the Brookhaven Substation Transfer Point began dispatching Bus Drivers at 1200. The critique stressed the need to follow the procedure and wait 1 hour before dispatching buses. This waiting requirement stated in the procedures will be stressed in future training sessions and drills. Note that proper notification of Transfer Points occurred in the December 10 drill.

Curbside pick-up was simulated for this drill and the controllers provided names of individuals to the Transfer Point Coordinators at Shirley Mall (Refer to LERO Message Nos. 34-38). The curbside pick-ups were radioed in to the Staging Area. This was successfully completed at 1350.

The Bus Dispatcher received message from EOC at 1400 to re-route Buses on routes H-1, I-1, and J-1. This information was not relayed to the Brookhaven Substation. The importance of transmitting this information will be stressed in future Training Sessions and drills. Re-routing information was properly transmitted at the December 10 drill.

Transfer Point Coordinators were dispatched to their points prior to the dispatching order (at 1100) to support the Bus Driver Road Rally (Refer to Staging Area Objectives 13 and 14).

Route Alert
Drivers -

Lead Traffic Guides received message of siren failure (Sirens #60 and #89) at 1024. Two Route Alert Drivers were dispatched at 1040.

In addition, the Lead Traffic Guides received message to dispatch Route Alert Drivers for Deaf Notification at 1204. Dispatching was completed by 1230.

These dispatching times were adequate.

The Route Alert Drivers phoned in upon completion of their routes to receive direction from the Lead Traffic Guides. Deaf Notification was completed by 1330 and siren failure notification was completed by 1130 for siren #89 and by 1210 for siren #60. No time frame for completing a route is required. Lead Traffic Guides will be encouraged to dispatch multiple Route Alert Drivers when they are available, to expedite the Route Alerting Process.

Road Crews -

Lead Traffic Guides received messages to dispatch Road Crews at 1158. Road Crews were dispatched at 1205. This is a good time frame.

Road Crew #2004 went to his location with a Traffic Guide Radio rather than with a Road Crew radio. A Traffic Guide was dispatched to location #2004 with the proper radio at 1230. This showed good response by the Staging Area.

Road Crew #2002 radioed in at 1315 to inform of Gravel Truck Accident. At 1320, EOC contacts Road Crews 2002, 2003 and 2001 to respond to accident. Road Crew 2002 asks for heavy duty wrecker and indicates clearing of accident will take greater than 2 hours. At 1342, EOC contacts Road Crew 2002 for status of impediment, Road Crew 2002 indicates no change and EOC

contacts again at 1355. At 1356, Road Crew 2002 informs EOC that the 3 cars are cleared but road still blocked by gravel truck. At 1435, EOC contacts Road Crew 2002 to ask if heavy wrecker arrived. Road Crew 2002 indicated he will contact when it does. Road Crew 2002 contacts EOC at 1503 to inform accident has been cleared.

Communications and response by the Road Crew were good. Objectives were met.

Evacuation

Route Spotters - Lead Traffic Guides received message to dispatch Route Spotters at 1155. All Route Spotters were dispatched by 1205. This time is excellent:

Route Spotter 1007 contacts EOC to inform them of Traffic build-up on Route 25. EOC contacts Route Spotter 1007 at 1326 to proceed to the accident scene. Route Spotter arrives at accident at 1329. The EOC contacted Route Spotter 1007 at 1400 to travel South on Grumman Boulevard to inform residents of new Bus Pick-up location. The Route Spotter observed (1007) made frequent contact with the EOC (approximately every 15 minutes). This is good use of the Route Spotters and demonstrated good communications.

Objectives were met for the Route Spotters.

Traffic Guides - The General Emergency was declared at 1132. PARs of Evacuation of Zones A-S decided at 1149. Traffic Guide Posts to be manned sent to Riverhead at 1155. Pre-assigned Traffic Guides required for a 0-2 mile evacuation (32 of the 36 required) were dispatched by 1222. Note that TCPs 39, 34, 36 and 115 required for a 0-2 mile evacuation were going to be manned however, due to the requirements of the scenario, the Traffic Guides were reassigned to other

TCPs. (Refer to LERO Message No. 26R). Remaining Traffic Guides were also dispatched by 1222. The 32 Pre-assigned Traffic Guides required for a 0-2 mile evacuation arrived at their posts (26 posts, excluding the four TCPs mentioned above. Also more than one Traffic Guide required at some posts) by 1310. This time frame is less than adequate because some Traffic Control Posts were not manned within 1-hour of the time the EBS Message was aired (1155). Objective 11 was partially met for Riverhead.

All Traffic Guides were able to establish communication with the Staging Area and radioed in upon their arrival at their TCP.

TCP 10 radioed in the Gravel Truck Accident to the Riverhead Staging Area at 1307. He was given re-routing instructions from the EOC at 1328. Procedures for re-routing were verbally demonstrated to the Riverhead Field Controller and were adequate.

The Traffic Guides at TCPs 13 and 14 were contacted at 1430 to determine traffic flow at their posts since they were near the Gravel Truck Accident.

The response to the Gravel Truck traffic impediment was good.

Two of the 11 TCPs observed had no Traffic Guides present. TCP 73 radioed in at 1240 that he was at the post but was not there at 1435 and TCP 15 radioed in at 1235 that he was at his post but was not there at 1440. After interviewing the Controller and the Traffic Guides at those posts, it was determined that the Traffic Guides were there parked at a location where the Field Controller could not see them (i.e., Traffic Guide for TCP 73 was parked in a driveway).

These objectives were met by the Traffic Guides.

It should be pointed out that later on in the drill, the EOC decided to extend the evacuation to include zones P and S. Since only 1/2 of the field personnel were invited to this drill per the scenario, no additional personnel were available to respond to this extension. The responses to this extension were therefore simulated.

December 10: Port Jefferson

Transportation - Staging Area received a message from EOC to dispatch Bus Drivers at 1025 for pre-staging of zones A-J, K, L, M, N, O, R and at 1258 to evacuate the above zones. By 1115 all required Bus Drivers for pre-staging were dispatched. No additional Bus Drivers were required to be dispatched for evacuation purposes. All Bus Drivers were at the Transfer Points in time to support the evacuation.

The Pre-staged Transfer Points were contacted at 1300 to inform when to begin the evacuation. This is adequate per procedures.

Curbside pick-up was simulated for this drill and the controllers provided names of individuals to the Transfer Point Coordinators at Miller Place and Norwood Avenues (Refer to LERO Messages 42-46). Miller Place radioed in their curbside pick-ups at 1400 for Van F1, 1430 for Van F2 and 1450 for Van F3. This was immediately transmitted to the Bus Coordinator at the EOC at 1410, 1440 and 1450 respectively and given to the Home Coordinator. Norwood Avenue radioed in their Curbside pick-ups at 1315 for Van F4, Bus G and Van Q were not radioed in. This information for Van F4 was immediately transmitted to the Bus Coordinator at the EOC at 1320 and given to the Home Coordinator.

Although Norwood Avenue did not radio in for Bus G and Van Q, this portion of the drill was simulated. The purpose of this portion was to check the communication links which were adequate.

Re-routing for buses was not necessary.

Transfer Point Coordinators were dispatched to their points prior to the dispatching order (at 0940 and 0943) to support the Bus Driver Road Rally (Refer to Staging Area Objectives 13 and 14).

Objectives 9 and 10 were met by the Port Jefferson Transportation Group.

Route Alert
Driver -

Lead Traffic Guides received message of Siren Failures (Sirens #9 and #29) at 0938. Six Route Alert Drivers were dispatched on these two routes (routes divided among the Drivers) at 1003.

In addition, the Lead Traffic Guides received a message to dispatch Route Alert Drivers for Deaf Notification at 1305. Dispatching was completed by 1330.

The Route Alert Drivers phoned in upon completion of their routes to receive direction from the Lead Traffic Guides. Deaf notification was completed at 1420 for zone K and 1500 for zone F. Siren failure notification was completed at 1210 for siren #9 and 1350 for siren #29. No time frame for completing a route is required.

At 1245, the EOC notified the Staging Area to have the Route Alert Drivers re-notify the public for Siren Failures #9 and #29. This was not performed due to a lack of field personnel (only 1/2 of the required field workers were invited per the scenario). What would be done was discussed with the controller.

These objectives were met.

Road Crews -

Staging Area received message to dispatch Road Crews 1250 for Road Crews 2009, 2011, 2012 and all tankers and 1255 for Road Crew 2010. All Road Crews were dispatched by 1325. This time frame is adequate.

Road Crew 2010 was initially dispatched by the Staging Area at 1255 to the Duck Truck Accident. He was contacted at 1300 by the EOC and told to report to accident. Road Crew 2010 arrived at the accident at 1352 and reported to the EOC at 1400 that the accident had been cleared. This time is less than adequate. It should be noted that the EOC did not dispatch a Road Crew when first notified of accident (at 1245) because at that time evacuation was not the PAR. The EOC assumed that prior to an evacuation recommendation, County Police would handle this situation as part of their normal duties. Once the evacuation PAR was made at 1248, LERO responded to the accident by dispatching Road Crews at 1255.

Communications were established. Objectives were partially met by the Road Crews. Reporting to an accident quickly, will be stressed in future training and drills.

Evacuation

Route Spotters - Lead Traffic Guides received message to dispatch Route Spotter 1001 at 1030 and remaining Route Spotters at 1315. Route Spotter 1001 was dispatched at 1045 and the others were dispatched by 1348. These times are adequate.

EOC contacts Route Spotters 1001 at approximately 1230 to have him respond to Duck Truck accident. Route Spotter arrives at scene at approximately 1245 and relays status of accident and requests a Road Crew. Continuous communication occurred between the EOC and Route Spotter 1001 until 1400 (when accident was cleared). Communications were good.

Objectives were met for Route Spotters.

Traffic Guides - The General Emergency was declared at 1202. PARs of evacuation of zones A-J, K, L, M, N, O, R made at 1248. Traffic Guide Posts to be manned sent to Port Jefferson at 1258. Pre-assigned Traffic Guides required for a 0-2 mile evacuation (6) were dispatched by 1314. Remaining Traffic Guides were dispatched by 1345. The six preassigned Traffic Guides required for the 0-2 mile evacuation arrived at their 5 posts (TCP 5 requires 2 Traffic Guides) by 1346. This time frame is adequate as it falls within 1-hour of the time the EBS Message was aired (1257). Objective 11 was met for Port Jefferson.

All Traffic Guides established communications with the Staging Area.

All TCPs observed by the Port Jefferson Field Controller had Traffic Guides at their posts when visited.

No re-routing was required for Port Jefferson Traffic Guides.

Patchogue

Transportation - Staging Area received message from EOC to dispatch Bus Drivers at 1029 for Pre-stage of zones A-O, R and at 1257 to evacuate above zones. All Bus Drivers (Special and General Population) were dispatched by 1100 for pre-staging. No additional Bus Drivers were required to be dispatched for evacuation purposes. All Bus Drivers were at their Transfer Points in time to support the evacuation.

Pre-staged Special Population Bus Drivers returned to the Staging Area by 1120. They were dispatched on their assignments by 1300.

The pre-staged Transfer Points were contacted at 1300 to inform when to begin evacuation. This is adequate per procedures.

Curbside Pickup was simulated for the drill and the controllers provided names of individuals to the Transfer Point Coordinators at Brookhaven National Laboratory and Coram Plaza Shopping Center (Refer to LERO Message Nos. 42-46). The Brookhaven National Laboratory radioed in their curbside pick-ups at 1440 for Bus B, C, D and at 1445 for Van E. Coram Plaza radioed in their Curbside Pick-ups at 1455. Patchogue Bus Dispatcher simulated this information being sent to the EOC due to it being near end of drill. The following through with information to the proper positions will be stressed and observed in future drills.

Re-routing of Buses was not necessary for Patchogue.

Transfer Point Coordinator were dispatched to the points by 1030 and declared their Transfer Points operational by 1105.

These objectives were met by the Transportation Group.

Route Alert
Drivers -

Lead Traffic Guides received message of siren failures (Sirens #19 and #40) at 0940. Two Route Alert Drivers were dispatched on these two routes at 0950.

In addition, the Lead Traffic Guides received message to dispatch Route Alert Drivers for Deaf Notification at 1313. Dispatching was completed by 1315.

These dispatching times are excellent.

Route Alert Drivers phoned in upon completion of their routes to receive direction from the Lead Traffic Guides. Deaf Notification was completed by 1422. Siren failure notification was completed at 1118 for Siren #19 and 1130 for Siren #40. No time frame for completing a route is required. Lead Traffic Guides will be encouraged to dispatch multiple Route Alert Drivers, when they are available, to expedite the Route Alerting Process.

At 1254, the EOC requested that Routes for Sirens #19 and #40 be re-run. Two other Route Alert Drivers were immediately dispatched (dispatch form indicates 1254). These routes were not completed by drill termination.

Objectives 9 and 10 were met by the Patchogue Route Alert Drivers.

Road Crews -

Staging Area received message to dispatch Road Crews at 1310. All Road Crews were dispatched by 1312. This time frame is excellent.

Road Crew 2005 was contacted by the EOC at 1410 to report to the Cesspool Truck accident. They arrived at the accident at 1440 and reported per the scenario that accident would take over 3 hours to clear. They were instructed by the EOC to remain at the location. Communications were established with all Road Crews. Objectives 9 and 10 were met by the Road Crews.

Evacuation

Route Spotters - Lead Traffic Guides received message to dispatch Route Spotters at 1020 and were dispatched by 1025. This time was adequate.

The EOC requested at 1305 that routes 1010 and 1011 were also to be patrolled. This was simulated by the Staging Area since no personnel were available (only 1/2 of the field workers were invited for this drill per the scenario).

No Route Spotters were requested to respond to the traffic impediments.

Communications with the EOC was maintained by the Route Spotters.

These objectives were met for the Route Spotters.

Traffic Guides - The General Emergency was declared at 1202. PARs of evacuation of zones A-O, R made at 1250. The Traffic Guide Posts to be manned sent to Patchogue at 1311. Pre-assigned Traffic Guides required for a 0-2 mile evacuation (21) were dispatched by 1325. Remaining Traffic Guides were dispatched by 1325 also. The 21 pre-assigned Traffic Guides required for a 0-2 mile evacuation arrived at their posts (13 posts; more than one Traffic Guide required at some posts) between 1324 and 1401 (TCP 77 did not arrive until 1447). Other than TCP 77, this time was adequate as they fall within 1-hour of the time the EBS Message was aired (1257). Objective 11 was partially met for Patchogue. The importance of arriving in a timely manner will be stressed to the Traffic Guide at TCP 77 at future training sessions and drills. In addition, TCP 126 did not radio in their time of arrival. The importance of transmitting arrival times will be stressed in future drills and training sessions.

The field controller did not observe the times of arrival of Traffic Guides due to the lateness of the evacuation order and his requirements per the scenario, he observed TCP 64 only.

The Traffic Guide at TCP 64 radioed in the Cesspool Truck Accident to the Staging Area at 1353. This information was relayed to the EOC at 1400. Re-routing information was transmitted to TCPs 63 and 64 from the EOC at 1417. This response time is adequate.

Communications were established and maintained for all Traffic Guides and all transmitted their arrival at their TCPs by 1447, except for TCP 126 mentioned earlier. (1 TCP out of 23 TCPs manned).

These objectives were met by the Traffic Guides.

Riverhead

Transportation - Bus Dispatcher received message from EOC to dispatch Bus Drivers at 1040 for pre-stage of zones A-O, R and at 1257 for evacuation of the above zones. By 1116 all required Bus Drivers for pre-staging were dispatched. No additional Bus Drivers were required to be dispatched for evacuation purposes. All Bus Drivers were at the Transfer Points in time to support the evacuation.

The pre-staged Transfer Points were contacted at 1257 to inform when to begin evacuation. This is adequate per procedures.

Curbside pick-up was simulated for this drill and the controllers provided names of individuals to the Transfer Point Coordinator at Shirley Mall (Refer to LERO Message Nos. 42-46). The names were radioed in to the Staging Area at 1400. This information was promptly relayed to the EOC at 1415. This time frame is adequate.

The Brookhaven Substation Transfer Point Coordinator received a message from EOC at 1345 to re-route Bus Route J-1 due to the Cement Truck traffic impediment. This information was adequately relayed to the Bus Drivers. This is good communications and response.

Transfer Point Coordinators were dispatched to their points prior to the dispatching order (at 1030) to support the Bus Driver Road Rally (Refer to Staging Area Objectives 13 and 14). All Transfer Points were operational by 1103.

These objectives were met by the Transportation Group.

Route Alert
Drivers -

Staging Area received siren failure message at 0937. Lead Traffic Guides received message of siren failure (Sirens #99 and #107) at 1011. Two Route Alert Drivers were dispatched at 1018. The time delay between the timeliness the Staging Area received the message and the time given to the Lead Traffic Guide is not adequate. The importance of the timeliness of distributing information will be stressed in future training sessions and drills.

In addition, the Lead Traffic Guides received message to dispatch Route Alert Drivers for Deaf notification at 1315 for zones E, J, N and at 1400 for zones P and S. Route Alert Drivers were dispatched at 1326 for zones E, J, N and at 1415 for zones P and S. This time frame is adequate.

The Route Alert Drivers phoned in upon completion of their routes to receive direction from the Lead Traffic Guides. Deaf Notification was completed at 1440 for zone E and 1418 for zone J. Time did not permit for zones N, P and S to be completed.

Siren failure notification was completed at 1050 for Siren #99 and 1130 for siren #107. In addition, the EOC requested at approximately 1259 that the routes be run again for sirens #99 and #107. These new Route Alert Drivers were dispatched at 1258 and phoned in upon completion of their routes at 1405 for siren #99 and 1406 for siren #107. No time frame for completing a route is required. Lead Traffic Guides will be encouraged to dispatch multiple Route Alert Drivers, when they are available, to expedite the Route Alerting Process.

All Route Alert Driver information was relayed to the Special Facility Evacuation Coordinator.

These objectives were met by the Route Alert Drivers.

Road Crews -

Staging Area received message to dispatch Road Crews at 1309. All Road Crews were dispatched by 1315. This time frame is adequate.

The EOC contacted Road Crew 2004 at 1342 and Road Crew 2003 at 1328 to proceed to Cement Truck accident. Road Crew 2004 arrived at accident at 1345. At 1350, Road Crew 2004 radioed in to the EOC that removal of impediment would take over 2 hours. He also requested another Road Crew. At 1405, Road Crew 2003 calls in to EOC, he had problems with his radio and went to Road Crew 2002 and radioed in from there. He is instructed to proceed to accident. Road Crew 2003 arrives at accident at 1423 and radios in to EOC. At 1400, the EOC contacts Road Crew 2001 to proceed to accident. At 1450, EOC contacts Road Crew 2004 to contact Road Crew 2001. At 1455, Road Crew 2004 contacts EOC to inform that he could not reach Road Crew 2001.

At 1500, EOC contacts Road Crew 2004 for status. Road Crew 2004 indicates clearing of accident will take another hour.

Communications with Road Crews were established and adequately maintained with the EOC with the exception of Road Crews 2001 and 2003. However, Road Crew 2001 responded at 1339 to inject KI. The non-communication of Road Crews 2001 and 2003 was brought to the attention of the Emergency Preparedness group and will be observed in future drills.

Evacuation

Route Spotters - Lead Traffic Guides received message to dispatch Route Spotters at 1021 and were dispatched at 1025. This time frame is excellent.

Route Spotter 1009 called in Cement Truck accident at 1305 to the EOC. Route Spotter 1007 contacted the EOC at 1357 to report on his traffic conditions. At 1404, Route Spotter 1009 contacts the EOC to inform of Road Crew 2004 arrival.

Communications was maintained by the Route Spotters and EOC on a regular basis. These objectives were met.

Traffic Guides - The General Emergency was declared at 1202. PARs of evacuation of zones A-O, R made at 1250. The Traffic Guide Posts to be manned sent to Riverhead at 1309. Pre-assigned Traffic Guides required for 0-2 mile evacuation (26 of the 36 required) were dispatched by 1327. Note that TCPs 3, 7, 128, 115, 127, 73, 108, 39, 36 and 62 required for a 0-2 mile evacuation were going to be manned, however, due to the requirements of the scenario, were re-assigned to other TCPs. (Refer to LERO Message No. 30R). Remaining Traffic Guides were also dispatched by 1327. The 26 preassigned Traffic

Guides required for a 0-2 mile evacuation arrived at their posts (20 Posts, excluding the 10 TCPs mentioned above. Also, more than one Traffic Guide required at some posts) by 1415. This time frame is less than adequate because some Traffic Control Posts were not manned within 1-hour of the time the EBS Message was aired (1257). Objective 11 was partially met for Riverhead.

All Traffic Guides were able to establish communications with the Staging Area and radioed in upon their arrival at the TCP, with the exception of TCP 87. His radio is being checked by the Emergency Preparedness Group and will be observed in future drills.

The two TCPs observed by the Field Controller had Traffic Guides at their posts when visited.

TCPs 16, 15, 29 and 19 were contacted by the Staging Area on re-routing at 1331 due to the Cement Truck accident. The implementation of the re-routing was simulated by the Traffic Guide at TCP 16 and proved adequate.

Objectives 9 and 10 were met by the Traffic Guides.

Staging Area Objective 12

December 2 &
December 10:

Port Jefferson, Patchogue and Riverhead

Field Controllers observing various locations (i.e., Transfer Points, TCPs) reported field workers reading their dosimeters every 15 minutes and aware of their usage and limits. New LERO Badges were distributed to field workers containing pertinent radiological information. Field workers were briefed on the use of these badges and field workers were urged to refer to these badges when necessary.

All field workers were notified when to inject KI and don protective clothing.

This objective was adequately met.

December 2: Port Jefferson

A controller initiated LERO Message No. 46 at approximately 1430 stating that TCPs 4, 5, 6 and 8C were reporting 4 Rem readings. The EOC responded quickly reporting at 1437 to have these Traffic Guides proceed to the EWDF. No replacements were dispatched because it was late in the scenario nor were higher doses authorized. The response time was adequate.

December 10: Port Jefferson

A controller initiated LERO Message No. 40 at 1405 to the Bus Dispatcher simulating that personnel at the Miller Place Transfer Point were reporting 4 Rem readings. The EOC responded quickly and by 1430 reported that the Director of Local Response has authorized readings to 10 Rem. This response time is adequate and proper procedures were followed. (Refer to EOC General Comments for December 10 on the EOCs response to this message).

Patchogue

One road crew member of the two man crew for Road Crew 2005 was not observed to read his dosimeters every 15 minutes. The importance of reading his dosimeters was stressed at the location.

Staging Area Objectives 13 and 14

December 2 &
December 10:

Port Jefferson, Patchogue and Riverhead

Make-up sessions for Phase II of the Bus Driver Driving Instruction Training were held at both drills. These make-up sessions were Phase II of LILCO's response to a deficiency cited in the FEMA Post Exercise Assessment for the February 13, 1986 Exercise regarding Bus Drivers who were unable to find their assigned locations. The purpose of these sessions was to familiarize LERO Bus Drivers with their appropriate Transfer Points and the new Bus Company yard - Suburbia Bus Corp. in Bohemia. In addition, Bus Drivers from the Riverhead Staging Area were required to travel to Baumann and Sons Buses, Inc. in Westhampton.

As you may recall, Phase I of the Bus Driver Driving Instruction Training required the Bus Drivers to travel to seventeen (17) Bus Company yards. Upon the conclusion of Phase II, our response will be completed since LERO Bus Drivers will have visited all LERO-contracted Bus Company yards and their appropriate Transfer Points by following driving instructions similar to those to be used in an actual emergency. Refer to Section 4.4 of both scenarios for further details. For both drills, thirty-eight (38) Bus Drivers participated out of the 66 Bus Drivers scheduled resulting in a 58% attendance rate.

The sessions were incorporated as part of the LERO drills scheduled for these days. The Bus Drivers involved in the make-up Road Rallies, instead of performing their normal LERO functions, were dispatched to travel to all Transfer Points coinciding with their Staging Areas and to the Suburbia Bus Corporation in Bohemia. As mentioned above, Riverhead Bus Drivers additionally had to travel to the Baumann & Sons Buses, Inc. in Westhampton. Only Riverhead Bus Drivers were required to travel to this yard since only five (5) buses are contracted at this yard and will most often be assigned to the Riverhead Staging Area in an emergency.

Upon arrival at their Staging Areas, Bus Drivers signed-in and received their dosimetry. At their drill briefings, Bus Dispatchers briefed the Bus Drivers on the specifics of their assignments and assigned a drill deadline time of 1500 whereby all Bus Drivers were instructed to proceed to the EWDF to hand in their equipment, driving instructions and verification cover sheets.

Make-up Bus Drivers were dispatched by the Transportation Controllers (one per car) from their Staging Area. Before leaving, the Bus Drivers received the Session's Driving Instructions II, the Session's Verification Cover Sheet II (inserted into the Driving Instruction Book), and a box lunch.

Transfer Point Coordinators were assigned to their Transfer Points to perform as controllers for the session. The Transfer Point Coordinators were briefed by the Bus Dispatchers of their responsibilities. Two other controllers were assigned to the two Bus Company yards.

Transfer Point Coordinators/Controllers set up at their Transfer Points as normal and the Bus Company controllers set up outside the Bus Company yard at an area void of any complications. All placed orange cones near their location. Upon arrival of the Bus Drivers, the controllers hole-punched, initialed and wrote the time of the Bus Driver's arrival on each Bus Driver's Session Verification Cover Sheet II. Note that each controller had either a heart, diamond, club or spade-shaped hole-punch to avoid unauthorized marking of the cover sheet.

After traveling to all of their assigned locations, Bus Drivers then traveled to the EWDF for monitoring and possible decontamination. Also at the EWDF, Bus Drivers handed-in their driving instructions and verification cover sheets.

For the December 10 drill, one (1) Bus Driver from the Patchogue Staging Area failed to locate the Suburbia Bus Corp. in Bohemia and arrived at the EWDF with Suburbia not verified.

In addition, the Bus Controller at Baumann & Sons Buses, Inc. in Westhampton was not permitted to remain at the location since the yard is located on Suffolk County property. All Riverhead Bus Drivers participating in the December 10 make-up session will be credited for this location as all indicated they traveled to the location, but no controller was there. Refer to memorandum from Bruce P.M. Kobel, dated 12/11/86, "Baumann Situation" for further details.

These sessions were the last to be held and concludes LILCO's initial response to the Bus Driver deficiency sited by FEMA. A final report summarizing this entire effort will be issued at a later date.

For the bus drivers who had already completed Road Rally training, the final response to this deficiency was initiated for these drills. All Bus Drivers who previously participated in the Bus Driver Driving Instruction Training Sessions were involved in the Bus Driver Maintenance System as described below.

LERIO instituted a maintenance system to ensure that Bus Drivers are assigned to different Bus Company yards and Transfer Points during these and future drills and are not assigned to the same locations each time. This maintenance system consisted of the four steps outlined below:

1. During pre-drill preparation, LERIO arranged for buses to be available at only a few of the Bus Company yards per drill. For these drills, Suburbia Bus Corp. in Middle Island, Baumann & Sons in Bohemia and Westhampton, and United Bus Corp. in Coram. The yards will be rotated for each subsequent drill to ensure that Bus Drivers have the opportunity to visit all the yards and will not be driving to the same yard each drill.
2. Bus Dispatchers were told not to call for volunteers for assignment to a specific Bus Company yard or Transfer Point. This eliminated the problem of Bus Drivers familiar with a certain location volunteering for assignment to that location.
3. A computer program is being developed to track the progress and validity of the Maintenance System. After each drill, LERIO collected the Bus/Van Dispatching Forms (Attachment 7 of OPIP 3.6.4) which were initialed and hole-punched by controllers at the above Bus Company yards. This data will be input into a spreadsheet program.
4. This computer report will be reviewed periodically to ensure the effectiveness of the system and to allow for immediate resolution of any problems, should they occur.

ENC Objective 1 (LERO Only)

- December 2: LERO ENC members were told to report at 0800 with all required staff present by 0845. Clerical assistance normally supplied by the EOC was not provided per the drill requirements.
- December 10: LERO ENC members were told to report at 0800 with all required staff present by 0830. Clerical assistance normally supplied by the EOC was not provided per the drill requirements.

ENC Objective 2 (LERO Only)

- December 2 &
December 10: The ENC would contact the EOC and the EOC would maintain staffing of the ENC through rosters. This was performed at both drills. This objective was met.

ENC Objective 3 (LERO Only)

- December 2: Six simulated media briefings were held and were adequate and timely. Presentations were understandable and clear. Maps and other visual aids were available. It should be noted that the briefing of 1155 was not actually held because of non-LERO related problems with the briefing room and was merely stated as being held. This objective was met.
- December 10: Four of the five simulated media briefings were held and were adequate and timely. One exception is the first briefing which was not held until 1000 while the Alert was declared at 0808. This delay was a result of LILCO personnel (onsite) not arriving until later since they were not pre-staged. LERO, however, was ready sooner. This objective was met.

ENC Objective 4 (LERO Only)

- December 2 &
December 10: This function was adequately simulated as no other agencies participated in these drills per the scenario. This objective was met.

ENC Objective 5 (LERO Only)

- December 2 &
December 10: Rumor control was established and performed adequately for both drills. The response to questions was performed in a timely manner (average of 15 minutes).

ENC Objective 6 (LERO Only)

December 2 &

December 10: For both drills, only a portion of the ENC was activated due to outside commitments of the Holiday Inn. However, space was adequate for the area activated. Because of this, the telecopier was located in the hallway making the telecopying of information inconvenient. However, this did not hinder ENC operations.

LERO News Release Paper ran out during the drills. This was brought to the attention of the Emergency Preparedness Staff and an adequate supply of this paper will be available.

ENC Objective 7 (LERO Only)

December 2 &

December 10: This objective was not observed by the ENC LERO Controller. This is not a LERO concern but an onsite concern and will be removed as a LERO objective for further drills.

ENC Objective 8 (LERO Only)

December 2 &

December 10: The ENC copying capabilities were adequate for both drills. No problems were observed. This objective was met.

ENC Objective 9 (LERO Only)

December 2 &

December 10: Two LERO Spokespersons were used for both drills. The reason was that one was being trained by the other for this position as this was the first drill for this LERO Spokesperson. In light of this, the new LERO Spokesperson performed his job adequately and effectively.

Areas Requiring Corrective Action (ARCA)

The following is a summary of LERO's response to the ARCAs cited by FEMA for the February 13, 1986 Exercise. Refer to Part I of Attachment 1 of SNRC-1276 for details on the ARCAs.

EOC-2

- December 2: Notification of FEMA was performed to a simulated phone number by the Director. Refer to LERO Message No. 4 for the simulated phone number.
- December 10: Notification of FEMA was performed to a simulated phone number by the Director. Refer to LERO Message No. 5 for the simulated phone number.

EOC-3

- December 2: Notification of the LIRR was performed to a simulated phone number for this drill by the Evacuation Coordinator. Refer to LERO Message No. 4 for the simulated phone number.
- December 10: Notification of the LIRR was performed to a simulated phone number for this drill by the Evacuation Coordinator. Refer to LERO Message No. 5 for the simulated phone number.

EOC-4

- December 2 &
December 10: Modifications were completed and reviewed with DOE prior to these drills. The new status boards were used in both drills. (Refer to memorandum to LERO File from D. Dreikorn, dated 1/9/87, "Meeting with DOE" for Status Board discussions).

EOC-5

- December 2 &
December 10: The reporting of this data was not observed for these drills as DOE was not participating.

EOC-6

December 2 &
December 10:

The DOE did not participate in these drills thus no field data was extrapolated. During a meeting with the DOE (Refer to memorandum from D. Dreikorn, dated 1/9/87, "Meeting with DOE") this matter was discussed and it was agreed that any extrapolated field data by DOE RAP will be indicated as such when reported to the EOC. Simulated field data (actual) was presented to the RHC by the controller and doses were projected based on this data. These projected doses were placed in the appropriate columns.

EOC-7

December 2 &
December 10:

No observation was made at either drill regarding the misstating of PAGs by the Health Services Coordinator. The corrective actions taken last spring was effective.

EOC-8

Not-Applicable

EOC-9

December 2 &
December 10:

The expedited dispatching of field personnel to respond to traffic impediments was not part of these scenarios. It will be practiced in future scenarios.

EOC-10

Not-Applicable

EOC-11 Through 15

Not-Applicable. Neither School Bus Drivers nor Ambulance/Ambulette Drivers participated in these drills.

ENC-2

December 2 &
December 10:

Both the EPZ Map and ECL Status Board were available at the ENC and were utilized in both drills.

ENC-3

- December 2: News Releases #1 and #2 were posted with minor cross-outs indicated on the releases. This was due to the computer not being in operation at the beginning of the drill. The remaining press releases were properly issued using the computer.
- December 10: All press releases were issued by the computer and did not contain any marks which could add to confusion.

Port Jefferson-1

- December 2 &
December 10: New LERO badges containing radiological and dosimetry information were given to field personnel for both drills. Field members were instructed on the use of these badges. Field members observed by controllers were aware of their dosimetry and radiological requirements.

Patchogue-2 Through 5

- December 2 &
December 10: The new security procedure was implemented for these drills and security was observed to be adequate.

Patchogue-7

- December 2 &
December 10: The new LERO badges issued to field workers contain job specific information as well as the radiological and dosimetry information mentioned earlier. The Traffic Guide badges state that the Traffic Guide should inform evacuees to listen to the EBS station for latest information on the emergency. All field personnel were adequately briefed on the use of these badges.

Patchogue-8

- December 2 &
December 10: Field personnel responding to the road impediments for both drills maintained adequate communication with the EOC regarding the impediment. Any requests for additional support was transmitted to the EOC from the field. An example of this is evidenced by, on December 2, Road Crew 2002 out of Riverhead radioing in to the EOC at 1335 requesting a heavy wrecker to assist in removal of the gravel truck impediment.

Patchogue-9

December 2 &
December 10:

The proper and accurate relaying of information from the Staging Area by the Transfer Point Coordinator to the Bus Drivers was observed during both drills. This was evidenced by the relaying to Bus Drivers to don protective clothing, take KI and when to begin the evacuation routes. A specific example to illustrate this was the Brookhaven Substation Transfer Point Coordinator accurately explaining the rerouting of zone J-1 to the Bus Drivers during the December 10 drill. The re-routing instructions were given to the Transfer Point Coordinator by the EOC.

Patchogue-10

December 2 &
December 10:

As of the date of this report, more detailed maps for the non-institutionalized mobility-impaired pick-ups have not been developed. The same maps were used for these drills that were used for the exercise. More detailed maps will be developed in the near future.

Patchogue-11

December 2 &
December 10:

Administrative Support personnel assisted in the dispatching of Special Population Bus Drivers for both drills. For the December 10 drill, a request came in from the EOC to the Special Population Bus Dispatcher at 1034 to pre-stage an additional bus for the evacuation of the Millcrest Adult Home. This Bus Driver was dispatched at 1120 to the home. The Bus Dispatcher waited for the return of pre-staged Special Population Bus Drivers who were dispatched at 1030. This is a good response for two reasons: 1) For the ARCA (resulting from February 13 Exercise), it took 40 minutes for a bus to be dispatched to a Bus Company, pick-up a bus, then proceed to the school. For December 10, the Bus Driver proceeded directly to the Millcrest Adult Home because he already had the bus. Even though it took 46 minutes to dispatch the bus, it would arrive at the home well before the bus which wasn't pre-staged. 2) An evacuation wasn't declared until 1250, therefore this bus would already be at the home to assist if an evacuation was called.

Patchogue-12

December 2 &
December 10:

The briefings held by the Bus Dispatchers at Patchogue did not contain any misleading information. As stated previously, new LERO badges containing radiological and dosimetry information were used for both drills. The Bus Dispatchers adequately and correctly briefed Bus Drivers on the use of these badges and the information on them.

Patchogue-13-16

December 2 &
December 10:

New LERO badges containing radiological and dosimetry information, including the use of KI and authorization of higher dose limits, were given to field personnel for both drills. Field members were adequately briefed on the use of these badges. Those field members questioned by controllers were aware of these requirements.

Riverhead-1

December 2 &
December 10:

Times of the update were properly placed on the status boards during both drills. (Refer to Staging Areas Objective 7 for further information).

Riverhead-3

December 2 &
December 10:

The Brookhaven Substation Transfer Point was used at both drills. No problems were observed, although weather was not inclement during the drills.

Riverhead-4 Through 6

December 2 &
December 10:

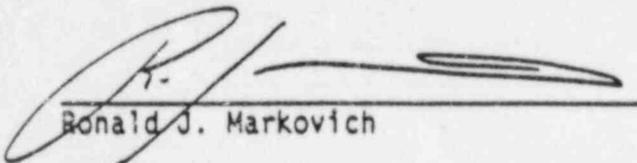
New LERO badges containing radiological and dosimetry information, including the use of KI and authorization of higher dose limits, were given to field personnel for both drills. Field members were adequately briefed on the use of these badges. Those field members observed by controllers were aware of these requirements.

Reception
Center-1

Not Applicable. The new Reception Centers were not activated for these drills as they are still in the construction phase.

Congregate
Care-1

Not Applicable. Congregate Care Facilities did not participate in these drills per the scenario.



Ronald J. Markovich

Attachment

cc: B. R. McCaffrey w/ Attachment
C. A. Daverio w/ Attachment
V. M. Palmiotto w/ Attachment
LERO File w/ Attachment

ATTACHMENT 1

LILCO
Emergency Preparedness Drill Scenario
Scenario No. 8A - Rev. 1

1.2. LERO OBJECTIVES

A. Emergency Operations Center (EOC)

1. Demonstrate the ability to receive initial and follow-up emergency notifications.
2. Demonstrate the ability to activate the Local Emergency Response Organization (LERO) EOC in a timely manner.
3. Demonstrate through rosters, the ability to maintain staffing in the LERO EOC on a 24-hour basis.
4. Demonstrate that the LERO EOC has adequate space, equipment, and supplies to support emergency operations.
5. Demonstrate that the LERO can establish appropriate communication links, both primary and backup systems (communication with the State and county via RECS to be simulated).
6. Demonstrate that the LERO EOC has adequate access control and that security can be maintained.
7. Demonstrate that messages are transmitted in an accurate and timely manner, messages are properly logged, that status boards are accurately maintained and updated, that frequent and appropriate briefings are held, and that incoming personnel are briefed.
8. Demonstrate that the appropriate official is in charge and in control of an overall coordinated response including decisions on protective action recommendations.
9. Demonstrate the organizational ability necessary to effect an early dismissal of schools within the 10-mile EPZ.
10. Demonstrate the ability to prepare and implement EBS in a timely manner (i.e., within 15 minutes after command and control decision for implementation of protective action recommendations).
11. Demonstrate the ability to assess the effect of road impediments upon evacuation traffic and develop and implement timely response actions. These actions may include rerouting and the broadcast of an associated EBS message, as necessary.

ATTACHMENT 1

LILCO
Emergency Preparedness Drill Scenario
Scenario No. 8A - Rev. 1

B. Emergency News Center (ENC)

1. Demonstrate the ability to activate LERO functions at the ENC in a timely manner.
2. Demonstrate through rosters the ability to maintain staffing of LERO functions at the ENC on a 24-hour basis.
3. Demonstrate the ability to brief the media in a clear accurate, and timely manner.
4. Demonstrate the ability to share information with other agencies at the ENC prior to its release.
5. Demonstrate the ability to establish and operate rumor control in a coordinated manner.
6. Demonstrate that the ENC has adequate space, equipment, and supplies to support emergency operations.
7. Demonstrate that the ENC has adequate access control and that security can be maintained.
8. Demonstrate that the ENC has adequate reproduction capabilities to support rumor control and media briefing activities.
9. Demonstrate the effective use of the LERO spokesperson to present timely and accurate information to the media.

C. Staging Areas

1. Demonstrate the ability to receive emergency notifications.
2. Demonstrate the ability to activate the staging areas in a timely manner.
3. Demonstration through rosters, the ability to maintain staffing at the staging areas on a 24-hour basis.

ATTACHMENT 1

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4. Demonstrate that the staging areas have adequate space, parking area, equipment, and supplies to support emergency operations.
5. Demonstrate that the staging areas can establish appropriate communication links with the LERO EOC and field personnel using both primary and backup systems.
6. Demonstrate that the staging areas have adequate access control and that security can be maintained.
7. Demonstrate that messages are transmitted in an accurate and timely manner, messages are properly logged, that status boards are accurately maintained and updated, that appropriate briefings are held, and that incoming personnel are briefed.
8. Demonstrate that the appropriate official is in charge and in control of an overall response assigned to the staging area.
9. Demonstrate the ability to dispatch to and direct emergency workers in the field.
10. Demonstrate the ability to communicate with all appropriate locations, organizations, and field personnel.
11. Demonstrate the ability to assign Traffic Guides to Traffic Control posts within the two mile EPZ and to dispatch traffic guides to Traffic Control Posts in a timely manner at the appropriate time.
12. Demonstrate knowledge on the part of emergency workers of dosimetry and Potassium Iodide usage procedures and the procedures for authorization of radiation exposures above permissible limits.
13. Continue bus driver training to ensure bus drivers are familiar with all bus yards and transfer points.
14. Institute the Bus Driver Maintenance System to ensure LERO Bus Drivers do not continually travel to the same Bus Company yards and Transfer Points. In addition, these drills will serve as a make-up for Phase II of the Bus Drivers Driving Instruction Manuals.