



ADJUDICATORY ISSUE

June 28, 1983

(NEGATIVE CONSENT)

SECY-83-257

COMMISSION LEVEL
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For: The Commissioners

From: James A. Fitzgerald
Assistant General Counsel

Subject: REVIEW OF ALAB-727 (CINCINNATI GAS & ELECTRIC
COMPANY, et al., Docket No. 50-358 OL)

Facility: William H. Zimmer Nuclear Power Station,
Unit No. 1

Petitions
for Review: None

Review
Time Expires: July 13, 1983

Purpose: To inform the Commission of an Appeal Board
decision which in our view

Discussion: On June 21, 1982, the Licensing Board issued an
initial decision in which it decided a number of
contentions in favor of the applicants.
However, the Licensing Board found that the
record could not support favorable findings on
other contentions dealing with emergency
planning -- specifically, on plans for
evacuating children from schools in the EPZ.

Contact:
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GILINSK92-436 PDR

Information in this record was deleted
in accordance with the Freedom of Information
Act, exemptions 5
FOIA- 92-436

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The Licensing Board expressed its exasperation with the failure of FEMA to address the intervenors' specific contentions, and with the FEMA witnesses' lack of preparation for the hearing. The Board stated that further hearings were required on the school evacuation issues, to begin only after the receipt of FEMA's final findings on emergency preparedness -- that is, after an emergency exercise had been conducted and evaluated. The Licensing Board stated that its ruling was limited to the facts of this case. It found that to proceed to a decision on the basis of FEMA's very preliminary findings, with those findings subject to revision in the course of FEMA's further review, would be "clearly contrary to the requirements of § 189 of the Atomic Energy Act that a hearing be held on issues placed into controversy in an operating license proceeding." Memorandum and Order (unpublished), August 24, 1982.

The Appeal Board affirmed the Licensing Board's finding that further hearings were needed on the school evacuation issue. It disagreed with the Licensing Board only on the timing of the hearings. The Appeal Board pointed to two developments which had occurred after the Licensing Board's June 1982 decision: the Commission's issuance of a rule change, amending 10 CFR 50.47, and the Appeal Board's decision in ALAB-717 (San Onofre).

10 CFR 50.47(a)(2) now states explicitly that the Commission's initial licensing decisions will be based on a review of FEMA's "findings and determinations as to whether State and local emergency plans are adequate and whether there is reasonable assurance that they can be implemented A FEMA finding will primarily be based on a review of the plans. ... Emergency preparedness exercises ... are part of the operational inspection process and are not required for any initial licensing decision." (Emphasis added.)

In San Onofre, the Appeal Board reviewed the regulation quoted above, as well as the NRC/FEMA Memorandum of Understanding, and concluded that the NRC was to make its licensing decisions on emergency preparedness "on the basis of the best available current information, and not ... await FEMA's last word on the matter." ALAB-717, slip op. at 66.

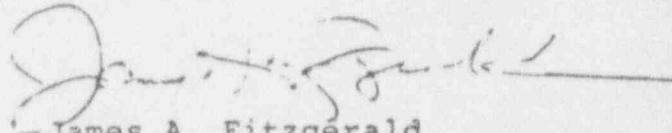
The Zimmer Appeal Board theorized that the Licensing Board ruled that the hearing must await FEMA's final findings as a way of assuring the intervenors an opportunity to scrutinize the revised and improved emergency plans. If so, said the Appeal Board, it had devised an unnecessarily drastic remedy, since the intervenors would have the opportunity to address the revised plans in the further hearings. As to the timing of the hearings, they could be held "at such time as the plans are sufficiently developed to support a conclusion that the state of emergency preparedness provides reasonable assurance that adequate protective measures can and will be taken for the school population in the event of a radiological emergency." Slip op. at 26. The Appeal Board declined to define just how much development of the plans would be needed for the hearing to commence. It left that determination to be made by the Licensing Board after hearing the views of the parties, FEMA, and the staff.

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EX-5



James A. Fitzgerald
Assistant General Counsel

Attachment: ALAB-727

SECY NOTE: In the absence of instructions to the contrary,
SECY will notify OGC on Wednesday, July 13, 1983
that the Commission, by negative consent, assents
to the action proposed in this paper.

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UNITED STATES OF AMERICA
NUCLEAR REGULATORY COMMISSION

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ATOMIC SAFETY AND LICENSING APPEAL BOARD

Administrative Judges:

Alan S. Rosenthal, Chairman
Stephen F. Eilperin
Howard A. Wilber

SERVED MAY 3 1983

_____)
In the Matter of)
)
CINCINNATI GAS & ELECTRIC)
COMPANY, ET AL.)
)
(Wm. H. Zimmer Nuclear Power)
Station, Unit No. 1))
_____)

Docket No. 50-358

Mark J. Wetterhahn, Washington, D. C. (with whom Troy B. Conner, Jr. and Robert M. Rader, Washington, D. C., and William J. Moran and Jerome A. Vennemann, Cincinnati, Ohio, were on the brief) for applicants Cincinnati Gas & Electric Company, et al.

Deborah Faber Webb, Alexandria, Kentucky, for the City of Mentor, Kentucky.

Andrew B. Dennison, Batavia, Ohio, for intervenors Zimmer Area Citizens - Zimmer Area Citizens of Kentucky.

Charles A. Barth for the Nuclear Regulatory Commission staff.

DECISION

May 2, 1983

(ALAB-727)

The applicants, Cincinnati Gas & Electric Co., Columbus & Southern Ohio Electric Co. and Dayton Power & Light Co., have appealed from a June 21, 1982 Licensing Board

initial decision which precludes the NRC staff from issuing at this time a full power operating license for the William H. Zimmer Nuclear Power Station.¹ Insofar as here relevant, the Board determined that the offsite emergency response plans for the plant fail to provide adequately for the evacuation of nearby schools surrounding the plant site. The Board ordered additional hearings to follow the final assessment by the Federal Emergency Management Agency (FEMA) of the adequacy of revised emergency plans. For the reasons detailed below, we affirm the decision with certain modifications.²

¹ LBP-82-48, 15 NRC 1549. The Board denied applicants' motion for reconsideration and clarification except as to one matter not in issue on this appeal (i.e., the conditional authorization of a fuel loading and low power operations license). LBP-82-68, 16 NRC ____ (August 24, 1982).

² On November 12, 1982, the Commission ordered the immediate suspension of safety-related construction work on the plant (CLI-82-33, 16 NRC ____). The suspension order continues in effect. Until it is lifted, the plant will remain unfinished and inoperable.

Regulatory Scheme for Emergency Planning

Under Commission regulations, no operating license for a nuclear power reactor can issue unless the NRC finds that there is reasonable assurance that adequate protective measures both on and off the facility site can and will be taken in the event of a radiological emergency. 10 CFR 50.47(a)(1). With regard to the adequacy of offsite emergency measures, the NRC must "base its 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." 10 CFR 50.47(a)(2).³

³ Section 50.47(a)(2) reads in full as follows:

(2) The NRC will base its 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, and on the NRC assessment as to whether the applicant's onsite emergency plans are adequate and whether there is reasonable assurance that they can be implemented. A FEMA finding will primarily be based on a review of the plans. Any other information already available to FEMA may be considered in assessing whether there is reasonable assurance that the plans can be implemented. In any NRC licensing proceeding, a FEMA finding will constitute a rebuttable presumption on questions of adequacy and implementation capability. Emergency preparedness exercises (required by paragraph (b)(14) of this section and Appendix E, Section F of this part)

Central to the development of offsite emergency response plans is the concept of emergency planning zones (EPZ).⁴ The regulatory scheme contemplates the establishment, for planning purposes, of two such zones: a plume exposure pathway (plume) EPZ, a more or less circular area extending approximately ten miles from the plant, and an ingestion exposure pathway (ingestion) EPZ, a similarly shaped area with a fifty mile radius.⁵ The plume EPZ is concerned principally with the avoidance in the event of a nuclear facility accident of possible (1) whole body external exposure to gamma radiation from the plume and from deposited materials and (2) inhalation exposure from the passing radioactive plume. The duration of those exposures could vary in length from hours to days. The ingestion EPZ

3 (FOOTNOTE CONTINUED FROM PREVIOUS PAGE)

are part of the operational inspection process and are not required for any initial licensing decision.

⁴ See 10 CFR 50.47 and Part 50, Appendix E. See also "Criteria for Preparation and Evaluation of Radiological Emergency Response Plans and Preparedness in Support of Nuclear Power Plants", NUREG-0654/FEMA-REP-1, Rev. 1 (November 1980); and "Planning Basis for the Development of State and Local Government Radiological Emergency Response Plans in Support of Light Water Nuclear Power Plants", NUREG-0396/EPA 520/1-78-016 (December 1978).

⁵ The precise area for each type of EPZ is determined on a case-by-case basis in relation to local emergency response needs and capabilities as they are affected by such conditions as demography, topography, land characteristics, access routes, and jurisdictional boundaries. 10 CFR 50.33(g) and Part 50, Appendix E, n.2.

is established primarily for the purpose of avoiding exposures traceable to contaminated water or foods (such as milk or fresh vegetables), a potential exposure source that could vary in duration from hours to months. NUREG-0654, supra, at 8-13 and Appendix 5. See also 10 CFR 50.33(g).

The range of possible serious accidents is quite large, extending from an accident in which little or no radiation is released offsite to one in which significant offsite radioactive releases might result over a period of time. Thus, emergency planning must provide for a variety of protective measures including sheltering, evacuation and the possible use of blocking agents such as potassium iodide -- the overall objective being the avoidance of as much radiation exposure as possible. Id. at 5-15.

II.

The Factual Setting

A. The Zimmer nuclear power plant is situated on the east bank of the Ohio River, near Moscow, Ohio, in Clermont County. Directly across the river to the west lies Pendleton County, Kentucky and, 1.5 miles to the north, Campbell County, Kentucky.⁶ Owing to the facility's

⁶ Clermont County Radiological Emergency Response Plan at I-1 (September 1981); Campbell County Radiological Emergency Plan at II-1 (October 1981).

location near the Ohio-Kentucky border, a serious radiological emergency could have direct offsite consequences in both states.

The issues on appeal involve emergency planning and preparedness in Clermont County, Ohio and Campbell County, Kentucky, and center upon the ability of those counties to effect a timely evacuation of school children in the event a nuclear accident necessitates such action. Clermont County has three school districts within the plume EPZ: Bethel-Tate with three schools (elementary, middle and high) clustered on a site about 10.6 miles from the plant; Felicity-Franklin with a similar school arrangement about 7.5 miles from the plant; and, closest to the plant, with four schools, New Richmond.⁷ Three of the New Richmond schools, serving 1503 students from elementary grades through high school, are located at one site some 6.8 miles north-northwest of the plant. The fourth school in that district, the Monroe Elementary School, is situated 5.0 miles north of the plant and has 549 students. Applicants' Exh. 15, Testimony Relating to Emergency Planning

⁷ Clermont County Radiological Emergency Response Plan at III-C-1.

Contentions at 78-79; Clermont County Plan at II-I-21; Tr. 5636, 5645.

Nine Campbell County, Kentucky schools, six public and three private, are within the plume EPZ. The total student population is 4,347. Testimony of Campbell County School Superintendent Sell, et. al., fol. Tr. 6371, at 3; Applicants' Exh. 15 at 78-79. Of the public schools, the nearest to the Zimmer facility is the A. J. Jolly Elementary School, located about 3.5 miles away. A private school, St. Peter & Paul Elementary, lies 4.5 miles from the plant. These two schools have a combined enrollment of 283 students. Ibid. The closest of the remaining seven schools is at a distance of nine miles from the plant. Ibid.

B. Each State and county plan makes provision for learning of an emergency at Zimmer and disseminating that information to various response organizations and to the general public. The Clermont County plan calls for an official at the Zimmer facility to contact several major response organizations, including the County Sheriff's office, by means of dedicated telephone lines. Each of these organizations, in turn, alerts certain other organizations and persons having a role in carrying out the

plan.⁸ The Clermont County Sheriff's office, for example, is responsible for notifying at least thirty-one organizations, including the County Board of Education, the superintendents of certain of the school districts, the County Engineer and the several fire and police departments within the county. Clermont County Plan, at II-D-4 - II-D-6. The County Board of Education also has principal or alternate responsibility for notifying the superintendents of the various school districts. Id. at II-D-6, II-D-7. The superintendents, in turn, must inform the schools within their district. Id. at II-I-5. Communication with the school districts and among the schools within a district is primarily by commercial telephone.⁹ Public notification is achieved through what is termed an integrated Prompt Notification System, utilizing sirens, NOAA weather radios, door-to-door verification and an emergency broadcast system (EBS). Id. at II-D-2.

⁸ Clermont County Plan, at II-D-1; Ohio Nuclear Power Plant Emergency Response Plan at II-D-1 - II-D-2. In each instance, if the recipient of the call does not recognize the caller by voice, there must be a return call for verification. Ohio Emergency Response Plan at II-D-1.

⁹ Information bearing upon the emergency may also be transmitted to the schools over the National Oceanic and Atmospheric Administration (NOAA) weather radio, a one-way system. Clermont County Plan at II-D-6; Tr. 5878-79.

The Campbell County plan is generally similar in structure. Initial radio (microwave) notification of an emergency at Zimmer is received by the Campbell County police dispatcher, who then informs the Director of the County's Disaster and Emergency Service (DES) of the emergency. Campbell County Plan at C-1 - C-4; Kentucky Radiological Emergency Plan at C-2, C-3. In turn, the DES alerts the County Judge/Executive and the Warning Coordinator. As appropriate, the Warning Coordinator contacts another twenty-two persons or organizations, including the school superintendent and the county schools.¹⁰ Communication with the schools is by monitor (one-way) radio. If evacuation of particular schools is required, the superintendent will telephone bus drivers to report to those schools. Campbell County Plan at C-3 - C-4; C-3-1. The public is advised through a prompt notification system consisting of sirens, NOAA weather radio and EBS. Id. at C-3.

¹⁰ The plan here also requires calls from the Warning Coordinator to be verified if the recipient does not recognize the caller.

III.

The Licensing Board Decision

At the hearing below, intervenors Zimmer Area Citizens-Zimmer Area Citizens of Kentucky (ZAC-ZACK) and the City of Mentor, Kentucky, challenged the adequacy and capability of implementation of the various State and local emergency plans submitted by the applicants.¹¹ Considerable evidence on those plans was adduced, which included the testimony of the FEMA employees who had reviewed them. Following the hearing, the Licensing Board resolved all of the claims in favor of the applicants except for those relating to the just discussed plans for evacuation of the affected schools in Clermont and Campbell Counties.¹² The Board found that these plans did not provide sufficient assurance that the persons assigned to play a role in the accomplishment of an evacuation would receive prompt notification of the emergency.

¹¹ These included the emergency response plans of the States of Kentucky and Ohio as well as those of Campbell, Pendleton and Bracken Counties, Kentucky and Clermont County, Ohio.

¹² In Commission practice, apart from matters raised by a board under its sua sponte authority, only those issues in controversy are considered in an operating license hearing. See 10 CFR 2.760a and Part 2, Appendix A, Section VIII. At the hearing below, a number of safety issues not involving emergency planning for schools were also litigated. All those issues were decided in favor of the applicants and that disposition has not been challenged before us.

The Board reasoned (and applicants concede) that during an emergency the commercial telephone circuits, including those serving the schools, likely would become overloaded as a result of heavy public usage and thus be unavailable for official use. This is significant because the telephone calls needed to alert the various segments of the school systems of the emergency might not be completed before the requirement of public notification took effect. 15 NRC at 1570, 1592-93; Tr. 6542.¹³ In the Board's apparent view, the provisions in the plans for NOAA radios, the emergency broadcast system and other communication means did not alleviate this concern because those alternatives lacked two-way communication capability. 15 NRC at 1590-93. And, in the Board's judgment, the communication problem was compounded even further by the fact that plans had not been developed for mobilizing buses and bus drivers if evacuation became necessary and telephone service were unavailable.

¹³ Under 10 CFR Part 50, Appendix E, Section IV D.3, a licensee must have the capability to notify responsible state and local governmental agencies within 15 minutes after declaring an emergency. The state and local agencies, in turn, must have the capability to make a public notification decision promptly on being informed by the licensee of an emergency condition. The design objective of the prompt public notification system calls for completion of initial notification of the public within the plume EPZ within about 15 minutes of the local government officials' receipt of notification of an emergency requiring urgent action.

For example, plans were not available, according to the Board, for notifying bus drivers of an emergency while they were en route or during their off-hours between the morning and evening runs. Id. at 1570, 1593.

The Board also determined that there was a problem of adequate resources associated with school evacuation. As to Clermont County, the Board found that there was an insufficient number of buses to evacuate simultaneously all of the students in the schools at the New Richmond and Monroe sites (located 6.8 and 5 miles from Zimmer, respectively). Id. at 1594. As to Campbell County, five to six buses are needed to evacuate the two schools within five miles of the Zimmer facility.¹⁴ Only four drivers, however, are available at the garage from which the buses would ordinarily be dispatched, some eleven to twelve miles away from those schools. Tr. 6394, 6409, 6419-20. The Board noted that, under optimum conditions, one hour would elapse between initial evacuation notification and the boarding of the Jolly students on the buses. 15 NRC at 1595.

¹⁴ As noted earlier (supra p. 7), the A. J. Jolly Elementary School is located 3.5 miles from the Zimmer plant; St. Peter & Paul Elementary school is 4.5 miles from the Zimmer site.

On the basis of these findings, the Licensing Board concluded that it could not make the reasonable assurance finding required by 10 CFR 50.47(a)(1) for a full power operating license. Id. at 1608. The Board, however, offered the applicants the opportunity for a further hearing upon additional development of the school evacuation plans. That hearing is not to begin until (1) FEMA issues its final findings on the adequacy and implementability of the State and local emergency plans for Zimmer and (2) the parties are given a reasonable opportunity to assess the upgraded plans, the final FEMA findings, and the staff's assessments of those findings. Id. at 1580.¹⁵

IV.

The Appeal

Before us, the applicants dispute the Board's ultimate conclusion that the Clermont and Campbell emergency response

¹⁵ The final FEMA findings represent the formal approval by that agency of State and local offsite emergency plans and preparedness for coping with the offsite effects of radiological emergencies that may occur at nuclear power facilities. FEMA's process leading to the issuance of final FEMA findings includes initial review of the plans by one of its regional offices, the conduct of exercises under the plans, at least one public meeting in the vicinity of the plant, and review by FEMA's national office. See FEMA Proposed Rule on Review and Approval of State and Local Radiological Emergency Plans and Preparedness, 44 CFR Part 350, 45 Fed. Reg. 42341 (June 24, 1980), republished for comment, 47 Fed. Reg. 36386 (August 19, 1982).

plans are not now adequate or capable of implementation with respect to school evacuation. Their argument is essentially twofold. First, they assert that, although the plans have not been completed, "the fundamental planning concepts were sufficiently developed at the time of the hearing to permit an assessment of their adequacy and capacity for implementation" and that "these concepts met all applicable criteria." Moreover, they claim, there is no "impediment" that would prevent the procedures already developed for evacuation of school children from being completed in a timely manner. Applicants' Br. at 26. Second, the applicants maintain that the Board wrongly read into the regulations a time limit for completion of an evacuation. According to the applicants, there are no absolute time limits imposed by applicable regulations or guidelines for completion of evacuation from a plume EPZ should the decision be made to take that step. Evacuation time limits and the assumed conditions on which the plans are to be based must be left flexible, so the argument goes, because (1) evacuation is only one of several dose saving options for consideration in the event of a radiological emergency; and (2) a decision to evacuate or not would be founded on actual conditions at the time of the emergency such as adverse weather, which could affect the time it would take to complete it. Id. at 27-31.

The staff endorses the applicants' claims of error. On the other hand, intervenors ZAC-ZACK and the City of Mentor support the Licensing Board's decision.

A. We agree with the applicants that emergency response plans for a particular nuclear power plant need not be in final form at the time an operating license application is noticed for hearing. This conclusion follows from the Commission's expectation that the "plans shall be an expression of the overall concept of operation; they shall describe the essential elements of advance planning that have been considered and the provisions that have been made to cope with emergency situations." 10 CFR Part 50, Appendix E, Section III (emphasis supplied). This is not to say, of course, that any plan, no matter how skeletal, will suffice at this stage. For Appendix E further stipulates that the plans submitted must include a description of their contents "to an extent sufficient to demonstrate that the plans provide reasonable assurance that adequate protective measures can and will be taken in the event of an emergency." Ibid (emphasis supplied). See also Southern California Edison Co. (San Onofre Nuclear Generating Station, Units 2 and 3), ALAB-717, 17 NRC ____, ____ fn. 57 (slip opinion at 66). (March 4, 1983).

The applicants are equally correct in their insistence that the Commission's emergency planning requirements do not

prescribe specific time limits governing the evacuation of plume EPZs. The matter of the time within which evacuation can be accomplished is left to be determined on a case-by-case basis upon consideration of all relevant conditions prevailing in the specific locality.¹⁶ But it does not follow, as the applicants would have it, that a particular evacuation plan need not be concerned with the efficiency with which evacuation might be accomplished given the conditions under which it must take place. Indeed, the Commission guidelines suggest the contrary. The basic goal of emergency planning is, after all, the achievement of maximum dose savings in a radiological emergency (see p. 5, supra). If the responsible governmental officials are to make an informed decision respecting what is appropriate protective action in a given radiological emergency, they must have available to them time estimates that are realistic appraisals of the minimum period in which, in light of existing local conditions, evacuation could reasonably be accomplished. And, the nearer to the plant

¹⁶ Those conditions include, for example, the size and nature of the population, the available transportation facilities, the existing road network, topographical features and political boundaries. See NUREG-0654, supra at Appendix 4, which sets out guidelines for making evacuation time estimates to be used by those emergency response personnel charged with recommending and deciding on protective actions during an emergency.

the area that might have to be evacuated, the greater the importance of accurate time estimates.

B. These considerations preclude rejection of the Licensing Board's determinations respecting the evacuation of schools in the two counties in question.

1. Turning first to the matter of communications, the applicants do not dispute that the telephone system might well become overloaded during an emergency, thus impairing its usefulness to emergency response personnel. They contend, however, that "overloading circuits at schools and exchanges would not be a problem" because "public officials could choose to delay public notification in order to assure the orderly notification of the schools." Applicants' Br. at 37, 40. But, as the Licensing Board pointed out, upon learning of an emergency at the plant, the responsible governmental officials must be able to notify the public within fifteen minutes. 15 NRC at 1570.¹⁷

It is highly unlikely that, during that brief interval, all of the telephone calls to persons having an active role in the execution of the plan could be completed. As earlier

¹⁷ See fn 13, *supra*. See also Southern California Edison Co. (San Onofre Nuclear Generating Station, Units 2 and 3), ALAB-680, 16 NRC ____, ____ (slip opinion at 4-5) (July 16, 1982).

seen, each school within the plume EPZ has to be notified of the emergency. Even if this were accomplished at an early point in the fifteen minute interval, there would remain the need for the school authorities to reach the bus drivers, among others. Campbell County, for example, employs fifty-four school bus drivers, twenty-five of whom have other employment. It operates fifty-eight regular school buses, nine of which are held in reserve, and two special buses for handicapped pupils. Under the Campbell County plan, each bus driver has to be notified of the emergency by telephone. Testimony of Sell, et al., fol. Tr. 6371, at 3-5. The communication problem would become further exacerbated if a bus were in transit at the time. In such circumstances, there is no means of communicating with the driver by telephone. Ibid.¹⁸

In apparent recognition of this reality, the applicants tell us that there are other possible means of communication with the schools and bus drivers. They suggest, inter alia, the reservation of a telephone line at each school solely for the use of school officials, the use of NOAA tone-alert radios and monitor radios capable of receiving voice messages, two-way radios, pagers for bus drivers, and

¹⁸ The situation in Clermont County is not materially different. See 15 NRC at 1592-93.

even resort to the public notification system itself. Applicants' Br. at 40-43. But there is no evidence of record that these alternative communication means will actually be included in the plans. Nor is there any basis for a present finding that the bus drivers and others needed to carry out the school evacuation phase of the plans would in fact receive prompt and accurate information of an emergency to enable them to carry out their duties efficiently.

There is the added, and as yet unresolved, question of whether bus drivers, who are in general part-time employees of the school system, will in fact respond to their driving duties in a radiological emergency. Although not in terms of bus drivers, testimony adduced at the hearing below suggested that approximately 95% of the volunteer life squadsmen and 25% of the fire fighters, also volunteers, would not respond promptly in the event of an accident at Zimmer because they first would seek to insure the safety of their own families. Testimony of New Richmond Life Squad Assistant Chief Feldkamp, fol. Tr. 5467, at 2-3; Tr. 5461. At the very least, this evidence raises a serious question as to whether bus drivers could be depended upon to carry out their responsibilities in these counties in such an emergency. At oral argument, staff counsel candidly admitted that this aspect of the matter simply was not considered below. App. Tr. 51.

2. We turn now to the Licensing Board's conclusion that there are insufficient buses to enable the simultaneous evacuation of students from the four schools in the New Richmond District (Clermont County) within the plume EPZ. The applicants maintain that there is no regulatory requirement for such simultaneous evacuation. As they see it, the schools -- Monroe Elementary located 5 miles from Zimmer and New Richmond Elementary, Junior, and High Schools, located 6.8 miles from the plant -- can be evacuated in stages with priority given to the school closest to the facility as buses and drivers become available. Applicants' Br. at 43-44.

Although the Licensing Board's discussion of the point is rather elliptical, it does not appear that the Board was suggesting that there is a rigid requirement that, in all instances where the evacuation of several schools in an area is decreed, it must be simultaneously undertaken at each school. Rather, as we understand it, the Board's concern was directed to whether, in the absence of simultaneous evacuation (because of the limited number of buses), all of the students would be efficiently removed from the plume EPZ. We find that concern to be justified.

The New Richmond School District operates twenty buses, each with a normal capacity of sixty-five students (seventy-one under overload conditions). Tr. 5641, 5688. Collectively, these buses can transport at one time only

two-thirds of the students at the four schools in question. To avoid the need for double runs, the applicants inform us, arrangements are being made with the neighboring West Clermont School District to supply seventeen buses to aid in any evacuation of New Richmond District schools.

Applicants' Br. at 43. (It would appear that at least nine to ten buses in addition to the twenty now operated by the New Richmond District are needed for the evacuation of the four schools without double runs.)

But more is needed than this representation of ongoing efforts to enlist the assistance of the West Clermont School District in order to provide a basis for the "reasonable assurance" finding required by 10 CFR 50.47(a)(1). To begin with, no details describing the workings of any such proposed arrangement are in the record. Moreover, the applicants have not demonstrated how, in the event of an emergency at Zimmer, the West Clermont buses, together with the drivers, would be first mobilized and then dispatched to the New Richmond schools some ten to fifteen miles away. Applicants' Exh. 15 at 88-89. In this connection, a preliminary evacuation time study of the plume EPZ for Zimmer estimated that, given optimum weather conditions and prompt notification to the public, the simultaneous evacuation of the portion of the EPZ outward from Zimmer in the direction of the New Richmond and Monroe schools (containing about 13,200 persons including the school

population) would take about 2.9 hours. Clermont County Plan, Attachment I-2 to Sections II-I, at 1-2 - 1-3, 3-5, 5-14. But, without reasonable assurance of the availability of an adequate number of buses and drivers to accomplish such evacuation, that time estimate is of little value for dose saving decisional purposes.

3. In the present state of the record, the applicants simply have failed to demonstrate either the adequacy of the Clermont and Campbell County plans respecting the evacuation of schools in the plume EPZ or the existence of reasonable assurance that the plans can be implemented. Once again, this is not to say that the plans must be complete in all their details. But they must at least be sufficiently developed for the Board to be able to conclude that the state of emergency preparedness provides "reasonable assurance that adequate protection measures can and will be taken in the event of a radiological emergency." 10 CFR 50.47(a)(1). See also San Onofre, ALAB-717, supra, 17 NRC at ____, fn. 57. The evidence at hand is insufficient with regard to (1) the adequacy of the communications systems; (2) the willingness of the bus drivers to respond; and (3) the availability of needed transportation resources for the New Richmond School District. In our view, the gaps are simply too large to leave to a license condition to remedy. The intervenors must be afforded an opportunity to test the

revised plans in an adjudicatory hearing. It follows that the Licensing Board committed no error in its ultimate determination with regard to the school evacuation plans for Clermont and Campbell Counties.¹⁹

C. What remains for consideration is the Licensing Board's ruling establishing the bases for further hearings on the State and local government emergency response plans.

1. At the hearing below, several representatives of FEMA testified extensively on the plans' adequacy and capability of implementation. See Testimony of Meyer, et al., fol Tr. 6982. The Licensing Board, however, found that their testimony was so "preliminary" and "conclusory" and lacking in foundation that it should be discounted. 16 NRC _____ (slip opinion at 7-10). Stressing that its holding was

¹⁹ This emphasis on the need for sufficiently developed school evacuation plans should not be taken as implying a belief that, in the event of a serious accident, this particular protective measure necessarily would have to be invoked. To the contrary, depending upon their appraisal of the situation confronting them, the responsible officials might well decide that the better course would be to shelter the students in the school buildings. Our point is instead simply that Commission regulations plainly require the formulation of satisfactory evacuation plans as a part of the overall emergency preparedness effort. Moreover, at least if adequately developed, those plans should aid materially the making of an informed judgment respecting which available protective measures are most suitable in the totality of the circumstances attending the specific emergency at hand.

"limited to the facts of this case," the Board concluded it could not authorize the issuance of a full power operating license for Zimmer until FEMA's final findings on at least the plans for the evacuation of the New Richmond District and Campbell County schools in the plume EPZ were filed in the proceeding and reviewed by the parties. According to the Board, there is no other way in which it could comply with both the requirement of Section 50.47(a)(2) that it base any reasonable assurance finding of the adequacy of such plans on FEMA's findings and determinations, and the hearing requirements of Section 189 of the Atomic Energy Act (42 USC 2239). Id. at ___ (slip opinion at 10-11).

The applicants urge, however, that the Licensing Board misconstrued 10 CFR 50.47(a)(2) in concluding that the final FEMA findings must precede the Board's ultimate disposition of the school evacuation matter. The requirement in that Section that the Commission base its "reasonable assurance" finding on FEMA's "findings and determinations," we are told, imposes a duty exclusively upon the staff -- here in the person of the Director of Nuclear Reactor Regulation -- and does not call for further Licensing Board consideration. Applicants' Br. at 8-17. In supporting the applicants' position, the staff emphasizes that Section 50.47(a)(2) does not by its terms limit the bases for the "reasonable assurance" finding to FEMA's final findings. Staff's Br. at 30-31.

We agree with the applicants and staff to the extent that Section 50.47(a)(2) does not require deferment of any hearing on State and local government emergency response plans to await FEMA's issuance of final findings on those plans. Rather, what that Section contemplates is a licensing decision based on the best available current information on emergency preparedness. San Onofre, ALAB-717, supra, 17 NRC at ___ (slip opinion at 63-66).²⁰ Indeed, a contrary interpretation of the Section would be at odds with the FEMA/NRC Memorandum of Understanding and a recent amendment to Section 50.47(a)(2). Ibid.²¹

²⁰ Such information, of course, must be sufficient to allow a board to conclude that the state of emergency preparedness provides "reasonable assurance that adequate protective measures can and will be taken in the event of a radiological emergency." See p. 15, supra.

²¹ The FEMA/NRC Memorandum of Understanding, inter alia, describes the role of FEMA in Commission licensing proceedings. 45 Fed. Reg. 82713 (December 16, 1980). It provides that FEMA will make expert witnesses available at these licensing proceedings and that it will offer its preliminary views on the state of offsite emergency preparedness based on plans currently available to FEMA. The amendment to the Commission's emergency planning regulations (47 Fed. Reg. 30232 (July 13, 1982)), provides that emergency preparedness exercises are not required for a nuclear power plant operating license decision but are required prior to operation above 5% of rated power. 17 NRC at ___ (slip opinion at 64-65). The amended rule is now under judicial review. Union of Concerned Scientists v. NRC, D.C. Cir. No. 82-2053 (petition filed September 10, 1982).

It appears, however, that the Licensing Board may not have called for final FEMA findings as a matter of regulatory requirement. Instead, the Board seems to view this as a means of assuring that the further developed school evacuation plans would not be allowed to escape the scrutiny of the intervenors, who had successfully challenged the adequacy of the plans in their present form.

Although we are in sympathy with that concern, the ruling went beyond the emergency response planning regulatory scheme contemplated by the Commission. Unlike the Board, we find no compelling need to await FEMA's final findings before the resumption of hearings on the plans.²² In our judgment, hearings may properly be held at such time as the plans are sufficiently developed to support a conclusion that the state of emergency preparedness provides reasonable assurance that adequate protective measures can and will be taken for the school population in the event of a radiological emergency. On the record before us, we cannot draw a bright line respecting how much plan development will be enough for that purpose. That decision

²²FEMA's review of the State and local emergency response plans for Zimmer is not expected to be completed until May 1984, after emergency preparedness exercises are conducted in June 1983. Letter from Brian P. Cassidy, FEMA's Regional Counsel, to Stuart A. Treby, NRC Assistant Chief Hearing Counsel (November 3, 1982).

will have to be made by the Licensing Board upon hearing all of the evidence (including the views of FEMA, the intervenors and the staff) on the then current state of the plans.

2. The applicants also complain of the Board's action in granting the parties an opportunity to review and comment upon the final FEMA findings. As they perceive the order, it allows the parties to reopen the proceeding later, in disregard of usual standards for reopening the record, on matters already decided by the Board. In their view, the Licensing Board's action was unprecedented and lacked authority. Applicants' Br. at 18-19. The staff's view is similar. Staff's Br. at 32-34.

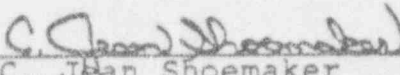
Although the Board's ruling is open to the interpretation given it by the applicants and staff, we do not think that the Board intended that result. Rather, we read the Board's ruling as entitling the intervenors ZAC-ZACK and Mentor to a later hearing, without showing of cause, only on matters dealing with the school evacuation plans; a hearing on other matters raised by FEMA's final findings would have to be justified under normal reopening standards. At oral argument, counsel for the intervenors construed the Board's ruling in the same way. App. Tr. 104-06. Counsel for the staff now apparently accepts that

construction of the Board's ruling as the correct one. App.
Tr. 123-24.

The Licensing Board's June 21, 1982 decision is
modified in accordance with the views expressed in Part IV
C, supra, and as so modified, is affirmed.²³

It is so ORDERED.

FOR THE APPEAL BOARD


C. Jean Shoemaker
Secretary to the
Appeal Board

²³ Our sua sponte review of the record on those matters
not embraced by the applicants' appeal reveals no error
warranting corrective action.