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UNITED STATES OF AMERICA
NUCLEAR REGULATORY COMMISSION

BEFORE THE DIRECTOR, OFFICE OF INSPECTION AND ENFORCEMENT

In the Matter of)
)
TOLEDO EDISON COMPANY,) Docket No. 50-346
et al.,) (10 C.F.R. § 2.206)
)
(Davis-Besse Nuclear Power)
Station, Unit No. 1))

LICENSEE'S RESPONSE TO § 2.206 PETITIONS OF
OHIO ATTORNEY GENERAL AND TOLEDO COALITION/CARTER

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I. Introduction

On October 24, 1986, the Attorney General of Ohio ("OAG") wrote to the Directors of the Offices of Nuclear Reactor Regulation, Nuclear Material Safety and Safeguards, and Inspection and Enforcement, invoking section 2.206 of the Commission's regulations to request that the NRC initiate proceedings to suspend the operating license and prevent restart of the Davis-Besse Nuclear Power Station, Unit No. 1 ("OAG Petition"). Similarly, on October 28, 1986, the Toledo Coalition For Safe Energy and Susan A. Carter filed with the Director of Nuclear Reactor Regulation a "Petition For Revocation, Modification or Suspension of Operating License Per 10 C.F.R. § 2.206" ("TCSE Petition"). The Toledo Edison Company ("Licensee"), the holder of Operating License No. NFP-3 and the operator and co-owner of Davis-Besse, responds herein to those petitions.

Both the OAG Petition and the TCSE Petition focus on emergency preparedness issues, including (a) the Lucas County Plan, (b) the accident scenarios on which the plan is premised, (c) the size of the Emergency Planning Zone ("EPZ"), (d) initial notification of state authorities, (e) the responsibilities of state and local officials, (f) the public alert/notification system, (g) plans for the evacuation of special populations, (h) the responsiveness of emergency workers, (i) the effects of earthquakes on roads and bridges needed for evacuation, (j) emergency medical services for radiological accident victims, (k) Ingestion exposure pathway EPZ planning, (l) reentry, (m) permanent relocation plans, (n) evacuation times in adverse winter weather, (o) decontamination and waste disposal, (p) radiation monitoring, and (q) emergency information for school officials.

The petitions request that the Commission institute a proceeding pursuant to 10 C.F.R. § 2.206 for suspension or termination of the Davis-Besse license (OAG Petition at 1, 7, 9-10; TCSE Petition at 3), and issue an order prohibiting restart of Davis-Besse (TCSE Petition at 3-4, OAG Petition at 10). However, as discussed more fully below, the issues raised in the petitions lack any basis in fact or law; certainly they do not demonstrate the existence of a substantial health or safety issue. Under applicable legal standards, Petitioners have simply failed to establish any basis for the issuance of a show cause order or any other relief pursuant to 10 C.F.R. § 2.206. Accordingly, the petitions must be denied.

II. Standards For Initiation of Show Cause Proceeding

Section 2.206 of the Commission's regulations provides a mechanism by which members of the public may request initiation of an enforcement action to modify, suspend, or revoke a license, or to take other appropriate action. In addition, section 2.206 vests authority in the director of the appropriate NRC office to decide whether to institute an enforcement action by the issuance of a show cause order. The only criterion set forth in the rule itself for judging the sufficiency of a petition is the requirement that "[t]he request * * * specify the action requested and set forth the facts that constitute the basis for the request." 10 C.F.R. § 2.206(a).

The apparent reason for the absence of a more specific standard in the regulation is that the decision to institute an enforcement action is not an adjudicative one, but rather a matter of "prosecutorial" discretion. See Consolidated Edison Co. of New York (Indian Point Units 1, 2, and 3), CLI-75-8, 2 N.R.C. 173, 175 (1975). Nevertheless, the Commission has in previous decisions provided guidance delimiting the exercise of this discretion.

In Indian Point, supra, the Commission affirmed a Director's decision denying a § 2.206 petition. The Commission there observed that "a show cause order would have been required had [the Director] reached the conclusion that substantial health or

safety issues had been raised. * * * [A] mere dispute over factual issues does not suffice." Indian Point, supra, 2 N.R.C. at 176 & n.2.1/ This standard has been acknowledged in dicta by the D.C. and Seventh Circuits. Lorion v. NRC, 712 F.2d 1472, 1475 (D.C. Cir. 1983), rev'd on other grounds sub nom., Florida Power & Light Co. v. Lorion, 105 S. Ct. 1598, 1601 (1985), on remand sub nom., Lorion v. NRC, 785 F.2d 1038, 1041 (D.C. Cir. 1986); Rockford League of Women Voters v. NRC, 679 F.2d 1218, 1222 (7th Cir. 1982).

The Commission reiterated the "substantial health and safety issues" standard in Northern Indiana Public Service Co. (Bailly Generating Station, Nuclear-1), CLI-78-7, 7 N.R.C. 429, 433 (1978) (D.C. Cir. 1979), aff'd sub nom., Porter County Chapter v. NRC, 606 F.2d 1363 (D.C. Cir. 1979). In that case, the Commission also rejected a claim that the Director erred in failing to permit petitioner to comment on, respond to, or cross-examine the views of the NRC Staff:

[The Director] is not required to accord presumptive validity to every assertion of fact, irrespective of its degree of substantiation, or to convene an adjudicatory proceeding in order to determine whether an adjudicatory proceeding is warranted. Rather, his role at this preliminary stage is to obtain and access the information he believes necessary to make that

1/ The directors have adhered to the "substantial health and safety issues" test. See, e.g., Philadelphia Electric Co. (Limerick Generating Station, Units 1 and 2), DD-85-11, 22 N.R.C. 149, 152 (1985); Washington Public Power Supply System (WPPSS Nuclear Project No. 2), DD-84-7, 19 N.R.C. 899, 923 (1984).

determination. Provided he does not abuse his discretion, he is free to rely on a variety of sources of information, including staff analyses of generic issues, documents issued by other agencies, and the comments of the licensee on the factual allegations.

Id. at 432-33.

The "substantial health and safety issues" test requires that a petitioner do more than merely state its disapproval of NRC policy or its belief that the accused utility may be found in violation of the Commission's regulations. Instead, a petitioner must advance evidence of violations of significance sufficient to pose a threat to public health and safety. Thus, in Limerick, supra, 22 N.R.C. at 166, the Director determined that the petitioners' showing of a trend of operator errors did not amount to a significant safety problem. Declining to issue a show cause order, the Director noted:

Isolated deficiencies in the licensee's program * * * do not necessarily undermine the program to such an extent as to give rise to a significant safety concern. What is required, when a violation is identified, is a careful assessment as to the significance of the violation, its cause, and the corrective action taken to preclude recurrence.

Id. at 161-62 (footnote omitted). Measured against this standard, the petitions here must fail. Neither the OAG nor TCSE has proffered evidence of even one violation of the Commission's regulations; certainly there is no evidence of a substantial health and safety issue to warrant the initiation of an enforcement proceeding against Licensee.

III. Response to Petitioners' Allegations

Licensee responds below to each of the allegations advanced by the OAG and by TCSE. As demonstrated in the discussion which follows, there is no basis in fact or law for the commencement of "show cause" proceedings here.

a. Lucas County Plan

TCSE first contends that Davis-Besse should not be authorized to restart until a radiological emergency preparedness plan has been prepared for "that portion of Lucas County which lies within 10 miles of Davis-Besse, consisting of a * * * segment of Jerusalem Township." TCSE Petition at 2. However, this asserted condition precedent to restart has been met.

The "Lucas County Radiological Emergency Response Plan" ("Lucas County Plan") has been prepared by the Toledo-Lucas County Civil Defense/Disaster Services Agency -- with the assistance of the Ohio Disaster Services Agency ("ODSA") and the support of Toledo Edison -- for use by Lucas County in the event of a radiological emergency at Davis-Besse.^{2/} The plan has been prepared

^{2/} In addition, the "Ottawa County Radiological Emergency Response Plan" ("Ottawa County Plan") has recently been revised to include Port Clinton, Ohio. Like the Lucas County Plan, the expanded Ottawa County Plan has not yet been finalized for submittal to FEMA. Accordingly, the references herein may not precisely reflect the final revisions of those plans, which Licensee understands are scheduled for submittal before January 1, 1987.

in conformance with the regulatory requirements and guidance, and is consistent with and supportive of the "Ohio Plan for Response to Radiation Emergencies at Licensed Nuclear Facilities." The plan includes a cross reference index to the planning standards and criteria of NUREG-0654^{3/} and those sections of the plan which implement them. A review of that index confirms that the plan has addressed all elements of emergency preparedness and response. Indeed, as developed more fully below, the answers of the Lucas County Plan to the issues raised in the petitions of TCSE and the OAG are further testament to the comprehensive scope of that plan.

Further, FEMA has played a significant role in the development of the Lucas County planning program, closely monitoring its progress to ensure that it provides adequate protection for the citizens of Jerusalem Township. Indeed, a FEMA representative observed Lucas County's participation in a September 23, 1986 "table-top" exercise conducted in coordination with ODSA and Ottawa County, in conjunction with Davis-Besse's annual site drill. On October 21, 1986, FEMA reported to the NRC on its observation of that exercise (as well as other Lucas County planning activities), and concluded that "the State and local governments are carrying out their commitments within the required time

^{3/} NUREG-0654/FEMA-REP-1, "Criteria for Preparation and Evaluation of Radiological Emergency Response Plans and Preparedness in Support of Nuclear Power Plants" (Rev. 1, November 1980).

frames." See Memorandum to E. Jordan (NRC), from R. Krimm (FEMA), re: Offsite Radiological Emergency Preparedness for the Davis-Besse Nuclear Power Station (October 21, 1986). Thus, while the Lucas County Plan has not yet been finalized, the intensive planning process in which Lucas County has been engaged for nearly six (6) months -- including the equipment and facilities that have been upgraded, the resources that have been identified, the plan and procedures that have been developed, and the ongoing program of training and exercises that has been instituted -- provides assurance that Lucas County could respond to protect the citizens of Jerusalem Township, if necessary, in the event of an emergency at Davis-Besse. Accordingly, because TCSE has failed to identify any defects in the ongoing planning for Lucas County, its criticisms do not warrant the commencement of "show cause" proceedings here.

b. Planning Basis

The OAG first questions "the accident scenario on which the plan is premised" (OAG Petition at 6), apparently assuming that the Commission's emergency planning regulations are based on less-than-"worst case" scenarios. That assumption is unfounded.

The NRC emergency planning regulations reflect consideration of a full spectrum of accident scenarios. The NRC has emphasized:

No single specific accident sequence should be isolated as the one for which to plan because each accident could have different consequences, both in nature and degree. * * * [A] number of accident descriptions were considered in the development of the guidance, including the core melt accident release categories of the Reactor Safety Study.

NUREG-0654, at 6-7. Accord, Long Island Lighting Co. (Shoreham Nuclear Power Station, Unit 1), LBP-85-12, 21 N.R.C. 644, 782 (1985) (plans developed in compliance with NUREG-0654 will "cope with a spectrum of accident possibilities including the worst accidents"). Accordingly, the OAG's views on planning basis are already reflected in the Commission's regulations, and provide no support for enforcement action here.

c. EPZ Size

The OAG also contests "the adequacy of the radius of the emergency planning zone," apparently in light of Chernobyl. OAG Petition at 6. But the Director has recently rejected a similar allegation in another case. See Carolina Power & Light Co. (Shearon Harris Nuclear Power Plant), DD-86-13, 24 N.R.C. _____ (October 15, 1986) (slip op. at 12-14).

The NRC Staff is continuing to evaluate information about the Chernobyl accident. However, to date, there is no indication that the ten-mile EPZ for U.S. reactors has been called into question. In his June 5, 1986 testimony before the House Committee on Interior and Insular Affairs, the Director of the NRC

Office of Nuclear Reactor Regulation⁴/ noted the substantial design differences between commercial reactors in the U.S. and the Chernobyl reactor, and concluded that no immediate changes in the NRC's regulatory practices and policies are necessary. The Chairman of the Commission reached the same conclusion in his May 22, 1986 remarks before the Subcommittee on Energy Conservation and Power of the House Committee on Energy and Commerce. Thus, "[n]othing which the Staff has learned so far provides a basis for * * * regulatory action with respect to any of the reactor facilities which the NRC regulates." Harris, supra, slip op. at 12-13. Here, as in Harris, the petitioner has failed to provide any information indicating that this plant is uniquely affected by what is now known about Chernobyl.

In any event, as the Director noted in Harris, this issue is essentially a challenge to the Commission's regulations. A § 2.206 petition for enforcement action cannot be used as a substitute for a petition for rulemaking. See Harris, supra, slip op. at 13, citing General Electric Co. (Vallecitos Nuclear Center), DD-79-9, 9 N.R.C. 744, 753 (1979); Commonwealth Edison Co. (LaSalle County Station, Units 1 and 2) and All Light-Water Reactors, DD-84-6, 19 N.R.C. 891, 897 (1984). The appropriate

4/ The Director of NRR was the NRC's representative on the Interagency Task Force established by the White House to monitor the health, safety and environmental consequences of the Chernobyl accident on the United States.

vehicle to seek a change to the Commission's regulations is a petition for rulemaking, filed pursuant to 10 C.F.R. § 2.802. Indeed, a petition on this very subject is presently pending before the Commission. See 51 Fed. Reg. 35518 (October 6, 1986). Thus, the OAG has another forum in which his concerns may be more appropriately addressed. Accordingly, the OAG's concern about the size of the EPZ provides no basis for the initiation of a show cause proceeding under 10 C.F.R. § 2.202.

d. Initial Notification of State

The OAG also professes concern about "utility notification of governmental authorities," based on the State's contention that -- at the time of the June 1985 incident -- "many hours elapsed before state officials were notified." OAG Petition at 6. This concern has no basis in reality.

In June 1985, emergency plans and procedures then in place provided that, in the event of an emergency, Licensee would notify the Ottawa County Sheriff's Department, which would in turn notify the ODSA Resident Radiological Analyst, who would then notify ODSA in Columbus. At the time of the June 1985 incident, Licensee promptly notified the Ottawa County Sheriff's Department, in accordance with the existing plans. NRC Inspection Report No. 85-23 (July 30, 1985), at 6. However, the ODSA Resident Radiological Analyst was not to be found. Thus, while it may be true that State notification of the Davis-Besse incident

was delayed, responsibility for that delay cannot be laid at Licensee's door.

Moreover, actions have been taken to ensure that such delays do not occur in the future. Under current procedures, Licensee will provide direct, prompt notification of any emergency to Ottawa County, Lucas County and the State. This new notification system worked well in both the September 11, 1986 pre-exercise drill and the September 23, 1986 annual exercise. Thus, the OAG's concerns about prompt notification of the State have already been addressed by corrective action. Under these circumstances, enforcement action is unnecessary.

e. Responsibilities of State and Local Officials

The OAG identifies the "responsibilities of the Governor and county officials" as an "outstanding issue." OAG Petition at 6. In the absence of any elaboration on the precise issue of concern, this allegation cannot serve as a basis for the institution of enforcement proceedings.

The applicable NUREG-0654 criterion requires, in relevant part:

Each organization shall specify the functions and responsibilities for major elements and key individuals by title, of emergency response * * *. The description of these functions shall include * * * a table of primary and support responsibilities using the agency as one axis, and the function as another.

NUREG-0654, Criterion A.2.a.

Both the State and local plans include NUREG-0654 cross-reference indices which identify those sections of the plans which address each NUREG-0654 criterion. A review of those indices demonstrates that the plans meet Criterion A.2.a. For example, § II.A.4 of the State Plan lists the state agencies and departments involved in emergency response, with their responsibilities; Figure II-A-4 is the table of primary and support responsibilities for state agencies. In addition, § II-A-3 of the State Plan is a list of key emergency response personnel at the State level, and § II.A.1 describes state responsibilities vis-a-vis local responsibilities. Further, §§ II.A.4 and IV of the Ottawa County Plan list the local agencies involved in emergency response, with their responsibilities; Figure A-2 is the table of primary and support responsibilities; and § II.A.4 lists key emergency response personnel. Similarly, §§ II.A.4 and IV of the Lucas County Plan identify the local agencies involved in emergency response, with their responsibilities, while Figure A-3 is a table of primary and support responsibilities, and § II.A.4 identifies key emergency response personnel.

The compliance of the plans with NUREG-0654 demonstrates compliance with the applicable regulatory requirements on responsibilities of state and local officials. Moreover, state and local officials successfully demonstrated "[t]he ability to coordinate information and decision making between the Ottawa County EOC [and] the State EOC" in their most recent exercise. See FEMA

Report on 7/16/85 Exercise (October 4, 1985), at 7. Accordingly, the issue of state and local responsibilities raised by the OAG does not support the issuance of a "show cause" order.

f. Public Alert/Notification

The OAG further questions the adequacy of means for "notification of the public in case of emergency, adequacy of sirens and methods of notifying the hearing impaired." OAG Petition at 6. But, like the OAG's other concerns, this issue also does not warrant the initiation of a § 2.202 proceeding.

The public Alert/Notification System ("ANS") for the Davis-Besse EPZ is comprised of several complementary methods -- fixed sirens, tone alert radios for institutions, "informal notification",^{5/} and house-to-house route verification. See Ottawa Co. Plan, § II.E.2.B.2; Lucas Co. Plan, § II.E.5. The system of fixed sirens has recently been enhanced, and now includes a total of 54 sirens, strategically placed throughout the EPZ (including Port Clinton and Lucas County). The effectiveness of such

5/ "Informal notification" is the process by which members of the public who have been alerted to an emergency spontaneously notify other members of the public of the emergency. The existence and efficacy of these informal notification processes are recognized in Commission case law. See, e.g., Carolina Power & Light Co. (Shearon Harris Nuclear Power Plant), ALAB-852, 24 N.R.C. ____ (October 31, 1986) (slip op. at 16 n.48); Duke Power Co. (Catawba Nuclear Station, Units 1 and 2), LBP-84-37, 20 N.R.C. 933, 973 (1984); Southern California Edison Co. (San Onofre Nuclear Generating Station, Units 2 and 3), LBP-82-46, 15 N.R.C. 1531, 1534-35 (1982).

systems was recently litigated exhaustively in Carolina Power & Light Co. (Shearon Harris Nuclear Power Plant), LBP-86-11, 23 N.R.C. 294, 364-97 (1986), aff'd, ALAB-852, 24 N.R.C. (October 31, 1986) (slip op. at 14-26). The extensive expert testimony in that case established conclusively that a siren system designed to meet NRC/FEMA standards^{6/} (like the system here), with the attendant informal notification, will alert in excess of 90% of EPZ households within 15 minutes in "worst case" conditions (e.g., in the middle of a hot summer night, when virtually the entire population is asleep and air conditioners are operating). Harris, supra, 23 N.R.C. at 396. Effectiveness would be even higher under more favorable conditions, e.g., during the daytime (when people are awake) or in the spring or fall (when windows would be open). Tone alerts provide further assurance that institutions would be promptly alerted; and, of course, route verification would provide notification to some additional percentage of the general public under any conditions.

The OAG has not even attempted to distinguish the Davis-Besse siren system from the dozens of similar systems installed

6/ The NRC Staff and FEMA require that, for areas with 2000 or fewer persons per square mile, sirens must provide sound level coverage of at least 60 dB (or 10 dB above ambient noise levels) in summer daytime conditions. See NUREG-0654, "Criteria For Preparation and Evaluation of Radiological Emergency Response Plans and Preparedness in Support of Nuclear Power Plants" (Rev. 1, November 1980), at 3-8 to 3-11. See also FEMA-REP-10, "Guide for the Evaluation of Alert and Notification Systems for Nuclear Power Plants" (November 1985), at E-6 to E-10.

in the EPZs of operating nuclear plants across the country. Nor could he; for, as noted above, the Davis-Besse system is designed to precisely the same criteria to which the siren systems at other plants are designed.

The present pendency before the Commission of the generic issue of the regulatory standards for public notification provides another independent, procedural ground for denial of the OAG's petition on this issue. See Letter from NRC Chairman Zech to Harris Licensing Board (August 7, 1986). The Director has previously declined to address through "show cause" proceedings issues which are being "considered fully * * * in other contexts and [where] the resolution * * * will be in accordance with the Commission's requirements." See, e.g., Carolina Power & Light Co. (Shearon Harris Nuclear Power Plant), DD-86-13, 24 N.R.C. ____ (October 15, 1986) (slip op. at 3-4). See also Carolina Power & Light Co. (Shearon Harris Nuclear Power Plant), ALAB-852, 24 N.R.C. ____ (October 31, 1986) (slip op. at 18 n.51) (declining to interpret standards for public notification in light of generic issue pending before Commission).

The OAG's concern about notification of the hearing-impaired is similarly lacking in merit. Both Ottawa County and Lucas County maintain lists of hearing-impaired persons. In the event of an emergency at Davis-Besse, local fire department personnel would provide special individual notification to the persons on those lists. Ottawa Co. Plan, § II.J.2.E.2.a.4; Lucas Co. Plan,

§§ II.E.6, II.J.3.a.3, II.J.3.b.3. These special arrangements for the individual notification of the hearing-impaired are -- as a matter of law -- sufficient to provide the requisite "reasonable assurance" that those individuals would be promptly notified in an emergency. See, e.g., Duke Power Co. (Catawba Nuclear Power Station, Units 1 and 2), LBP-84-37, 20 N.R.C. 933, 974 (1984); Kansas Gas & Electric Co. (Wolf Creek Generating Station, Unit No. 1), LBP-84-26, 20 N.R.C. 53, 67, 94-95 (1984); Pacific Gas and Electric Co. (Diablo Canyon Nuclear Power Plant, Units 1 and 2), LBP-82-70, 16 N.R.C. 756, 773-75, 814 (1982), aff'd, ALAB-781, 20 N.R.C. 819 (1984); Pennsylvania Power and Light Co. (Susquehanna Steam Electric Station, Units 1 and 2), LBP-82-30, 15 N.R.C. 771, 781, 816, aff'd, 16 N.R.C. 1530 (1982). Accordingly, the ANS issues raised by the OAG provide no basis for the relief he seeks.

g. Evacuation of Special Populations

The OAG criticizes the "adequacy of plans for evacuation of special populations, nursing home patients, and disabled persons." OAG Petition at 6. But these criticisms are baseless.

All special populations in the EPZ have been identified, and their needs carefully assessed. For planning purposes, it has been estimated that the evacuation of all such special populations (identified more specifically below) -- including schools, persons without access to private transportation, and the

homebound non-ambulatory -- would require bus capacity for approximately 4,794 persons and ambulance capacity for approximately 84 persons. However, these planning assumptions are quite conservative. One example of this conservatism is the use of school enrollment to generate necessary bus capacity, without adjusting for absenteeism. Another example is the double-counting of school children who live within the EPZ; for purposes of this analysis, they have been counted both as EPZ residents without access to private transportation and also as students in need of transportation. Thus, the transportation analysis here clearly overstates demand. Further, this analysis has assumed the unlikely scenario of a full plume EPZ evacuation. In the more likely scenario -- evacuation of only a part of the EPZ -- there would be much more excess capacity.

The available transportation resources also have been inventoried. As illustrated in Attachment A hereto, even excluding vehicles such as county agency automobiles and private cars driven by emergency workers, there is a large pool of resources available for the evacuation of these special populations. Thus, while there is no regulatory requirement that an evacuation be completed in a single trip, it could be accomplished in the event of a radiological emergency at Davis-Besse. See Duke Power Co. (Catawba Nuclear Station, Units 1 and 2), LBP-84-37, 20 N.R.C. 933, 995 (1984) (discussing plans for evacuation involving multiple trips to reception centers).

The special facilities in the Ottawa County portion of the EPZ include schools, preschools, nursing homes, a hospital, a group home, and a training center. All schools would be evacuated by bus.^{7/} Students from Carroll, Benton, and Salem Townships would be evacuated to the reception center at Vanguard Vocational School in Fremont. Students from Erie Township, Bay Township and Port Clinton would be evacuated to Sandusky High School. Students from Harris Township would be retained at the Woodmore Schools which they attend, which are outside the EPZ. Ottawa Co. Plan, § II.J.2.E.2.a.1. If the children at the preschools in the area could not be released to their parents, they would be evacuated by school staff in facility and personal vehicles, with local school district bus support, to the appropriate reception center (Vanguard Vocational School or Sandusky High School). Ottawa Co. Plan, § IV.C.4.

The residents of the two nursing homes in the area would be evacuated by the Ohio National Guard (with local bus and ambulance support) to the reception centers for their areas or to health care facilities outside the EPZ, depending upon their needs. Ottawa Co. Plan, § IV.A.7. In the event that evacuation of Magruder Hospital were necessary, Ottawa County school buses and ambulances from local fire departments and the Ohio National

^{7/} Nearly half of all students at schools in the EPZ are more than nine miles from Davis-Besse.

Guard would evacuate patients to Firelands Community Hospital (in Sandusky). Ottawa Co. Plan, § IV.C.

The residents of the Garden Farm Home would be evacuated to the reception center at Fremont Ross School via the group home's own van. Riverview School and Industries would evacuate to Vanguard Vocational School, using its own vehicles and local school bus support. Ottawa Co. Plan, § IV.C.5.

There are no schools or special facilities in the Lucas County portion of the EPZ. However, students at the Jerusalem Elementary School (which is actually beyond the EPZ, approximately 11.5 miles from Davis-Besse) would be transferred by bus to Eisenhower Junior High School in a General Emergency, if conditions warrant. Lucas Co. Plan, § II.J.3.a.4.

Plans have also been developed for the evacuation of persons without access to automobiles, as well as homebound non-ambulatory individuals. People without access to automobiles^{8/} would be advised by Emergency Broadcast System announcements to remain in their homes and not to display a towel or a green "WE HAVE

^{8/} The vast majority of those without their own private transportation would evacuate with friends and relatives who have cars. See, e.g., Duke Power Co. (Catawba Nuclear Station, Units 1 and 2), LBP-84-37, 20 N.R.C. 933, 1001 (1984) (approving plan which "anticipates that most people without their own means of transportation will be able to secure transportation from neighbors or friends"); Kansas Gas & Electric Co. (Wolf Creek Generating Station, Unit 1), LBP-84-26, 20 N.R.C. 53, 103 (1984) (recognizing that "evacuation for those without their own means of transportation will in most cases be provided by relatives, neighbors and friends").

"BEEN NOTIFIED" placard, so that emergency response personnel would stop there during route verification. In Ottawa County, people without access to automobiles would then be evacuated to the appropriate reception center via buses from local school districts. In Lucas County, those without access to private transportation would be transported by members of the Jerusalem Township Volunteer Fire Department from their homes to the Jerusalem Township Fire Station (outside the EPZ), with support from Oregon School District bus drivers, if necessary. From there, evacuees would be transported to the reception center via Oregon School District buses. Ottawa Co. Plan, § II.J.2.E.2.a.3; Lucas Co. Plan, §§ II.A.4.a.2., II.J.3.b.2.

The evacuation of homebound non-ambulatory persons would be facilitated by the lists of such persons maintained in Ottawa and Lucas Counties. In Ottawa County, this list of "special needs" persons is maintained by the County Public Health Department, in coordination with the County Emergency Management Agency and local fire departments. The Jerusalem Township Trustees maintain a similar list for Lucas County. Both counties update their lists at least annually, to reflect current information, including the returned mail-in "special needs cards" distributed annually throughout the EPZ as part of the emergency public information packet. Ottawa Co. Plan, § II.J.2.E.2.a.4; Lucas Co. Plan, § II.J.3.b.2. In Ottawa County, homebound non-ambulatory persons would be evacuated to reception centers by Ohio National

Guard and local fire department ambulances and vehicles. Home-bound non-ambulatory persons in Lucas County would be evacuated by Jerusalem Township Volunteer Fire Department vehicles and ambulances to the reception center or to St. Charles Hospital, depending upon their individual needs. Ottawa Co. Plan, § II.J.2.E.2.f; Lucas Co. Plan, §§ II.A.4.a.2, II.J.3.b.2.

The evacuation of mobility-impaired persons has been successfully demonstrated in Davis-Besse exercises. In the most recent exercise, FEMA reported:

Ottawa County was prepared to evacuate the mobility-impaired. A written list with special needs was available and updated during the exercise with current hospital information. This list was maintained by County social services personnel. Transportation would be * * * carried out by township fire districts. Arrangements had been made with the National Guard for additional medical transport. The Carroll Township Fire Department provided a demonstration of their capability to handle the mobility impaired during an evacuation. * * * It was readily apparent that all staff were knowledgeable of their procedures for conducting the evacuation.

FEMA Report on 7/16/85 Exercise (October 4, 1985) at 8. See also Id. at 32, 33.

The plans for the evacuation of institutionalized persons, persons without access to automobiles, and homebound non-ambulatory persons which have been developed by Ottawa and Lucas Counties here simply cannot be distinguished from similar plans for transportation assistance which the NRC has approved elsewhere. See, e.g., Duke Power Co. (Catawba Nuclear Station, Units

1 and 2), LBP-84-37, 20 N.R.C. 933, 1001-03, 1005-06 (1984) (approving similar provisions for evacuation of schools and other institutions and special populations, including compilation of list of persons needing assistance, use of EBS to advise public of means to obtain transportation assistance, and use of personal cars, buses, county vehicles, ambulances and other official vehicles to evacuate persons needing assistance). Thus, the OAG's criticisms provide no basis for enforcement action in this case.

h. Emergency Worker Response

Both the OAG and TCSE question "the willingness and ability of bus drivers and other emergency workers to perform assigned functions." OAG Petition at 6; TCSE Petition at 3. Particular reliance is placed upon an October 20, 1986 resolution adopted by the Northwest District of the Ohio Association of Public School Employees ("OAPSE"), opposing Davis-Besse restart and indicating that OAPSE members will not respond in the event of an emergency at Davis-Besse. According to TCSE, the emergency plans assume the availability of OAPSE members "to drive buses and operate refugee [sic] reception centers at schools as part of the emergency and evacuation plans for Davis-Besse." TCSE Petition at 3.

However, the subject of human response to an emergency is one of the most litigated issues in NRC licensing hearings. NRC case law recognizes that, in actual emergencies, people conform to pro-social behavior patterns and assume their roles under the

emergency plan, even where they have earlier asserted that they would not do so. See, e.g., Pacific Gas & Electric Co. (Diablo Canyon Nuclear Power Plant, Units 1 and 2), LBP-82-70, 16 N.R.C. 756, 825 (1982) (characterizing as "unreliable" people's statements about their likely behavior under stress while being interviewed under unstressed conditions); Consolidated Edison Co. of New York (Indian Point, Unit No. 2), LBP-83-68, 18 N.R.C. 811, 958 (1983) (in actual emergency, people behave in pro-social manner and in accord with roles under plan, despite earlier assertions to the contrary).

The historical record of emergency response in thousands of natural and technological disasters conclusively demonstrates that emergency workers (both paid and volunteer) perform their assigned functions even in the face of imminent life-threatening situations. See Indian Point, supra, 18 N.R.C. at 957-59 (relying on FEMA testimony that past experience demonstrates that emergency workers fulfill their duties); Metropolitan Edison Co. (Three Mile Island Nuclear Station, Unit No. 1), LBP-81-59, 14 N.R.C. 1211, 1487 (1981) (noting FEMA testimony that, based on previous disaster experience, emergency workers can be expected to "perform their emergency functions regardless of conflicting demands"); Carolina Power & Light Co. (Shearon Harris Nuclear Power Plant), Docket No. 50-400 OL, "Memorandum and Order (Ruling on Remaining Summary Disposition Motions)" (April 24, 1985). Accord, The Detroit Edison Co. (Enrico Fermi Atomic Power Plant,

Unit 2), DD-84-11, 19 N.R.C. 1108, 1114-18 (1984)(relying on NRC review of disaster literature, as well as FEMA and NRC experience that volunteer emergency workers willingly respond to actual emergencies involving toxic and hazardous materials).

As the Director of Nuclear Reactor Regulation has noted, training is one measure which can help to assure the participation and effectiveness of emergency workers. Id. at 1116. To that end, Licensee has scheduled meetings with OAPSE leaders, school officials, and bus drivers to discuss school planning and to address any concerns bus drivers and other school personnel may have. Specifically, on October 22, 1986, representatives of Licensee, an Ottawa County Commissioner, and the Ottawa County Emergency Management Director met with the Port Clinton OAPSE representative, to discuss any concerns of Port Clinton bus drivers. Later that same day, a meeting was held with the Oregon School District administration, as well as the OAPSE representative for that district, which included a briefing on bus driver responsibilities in a radiological emergency. On October 24, 1986, a meeting was held with the Superintendents of the Benton-Carroll-Salem School District, the Port Clinton School District, and the Riverview School and Training Center, to discuss school planning and any concerns of bus drivers there. Finally, a November 6, 1986 meeting was held with the Superintendents and Principals from Ottawa County Schools, to discuss school response to a radiological emergency.

Following these meetings with school officials and OAPSE representatives, meetings were held with bus drivers. On November 4, the bus drivers of the Oregon School District OAPSE were briefed on their responsibilities in the event of an emergency at Davis-Besse. Similar meetings were held on November 5 and November 10 for the Benton-Carroll-Salem School District and the Riverview Training Center, and for the Port Clinton School District, respectively. Meetings with the bus drivers in the school districts outside the EPZ have also been planned.

In addition, the Ohio Disaster Services Agency ("OSDA") is implementing a special radiological emergency preparedness training program for bus drivers. That training program will address basic radiation concepts and health effects (including use of dosimetry), an overview of emergency response plans, and training on the specific responsibilities and procedures of bus drivers. ODSA expects to complete the necessary training materials and criteria by mid-November, and to commence training immediately thereafter. An expedited training schedule has been developed with the cooperation of school officials, with training of bus drivers within the EPZ scheduled to be complete by November 21, 1986, and training for bus drivers outside the EPZ shortly thereafter. As in Fermi, supra, the implementation of this training program will alleviate concerns regarding bus driver response in the event of an emergency. Compare 19 N.R.C. at 1117.

In addition to bus drivers, TCSE questions the reliability of OAPSE personnel staffing "refugee reception centers." TCSE Petition at 3. But, of course, the reception centers -- and the people who staff them -- would be located well outside the EPZ. See FEMA Report on 7/16/85 Exercise (October 4, 1985), at 34. Compare Fermi, supra, 19 N.R.C. at 1118 (in assessing reliability of emergency workers, noting that high percentage would be stationed outside EPZ). In any event, primary reliance for reception center operations is placed on the Red Cross and other social service agencies (e.g., the Sandusky County Disaster Services Agency and the Sandusky County Health Department), not on school employees who may be OAPSE members. See FEMA Report on 7/16/85 Exercise (October 4, 1985), at 33-35; Ottawa Co. Plan, § II.A.4.A.7; Lucas Co. Plan, § II.A.4.b.5. See also Long Island Lighting Co. (Shoreham Nuclear Power Station, Unit 1), LBP-85-12, 21 N.R.C. 644, 678 (1985) (noting that Red Cross operated centers during TMI-2 accident, and relying on FEMA testimony that Red Cross response in other emergencies has been "outstanding").

In short, based on historical experience in thousands of natural and technological disasters around the world, there is reasonable assurance that emergency workers would perform their assigned functions in the event of a radiological emergency at Davis-Besse. The special training program for bus drivers reinforces this assurance. Accordingly, the OAPSE resolution does not warrant enforcement action.

i. Earthquake Effects

Next, the OAG contends that plant restart must be delayed until emergency planning considers "the effects of an earthquake on roads and bridges that would be used during an evacuation." OAG Petition at 7. As a matter of law, that claim must be rejected. See San Luis Obispo Mothers For Peace v. N.R.C., 789 F.2d 26 (D.C. Cir.) (en banc), cert. den., ____ S. Ct. ____ (1986); 51 Fed. Reg. 39390 (October 28, 1986) (withdrawing proposed rule as "unnecessary" in light of San Luis Obispo decision).

The petitioners in San Luis Obispo argued that the NRC erred in licensing a California reactor sited three miles from the Hosgri Fault without requiring consideration in emergency plans of an earthquake concurrent with a radiological emergency. Affirming the Commission's decision, the Court of Appeals reviewed each of three considerations cited in support of the licensing decision. First, as to an earthquake-initiated radiological emergency, the Commission noted that the plant was seismically designed to assure that releases will not result from earthquakes up to and including the "Safe Shutdown Earthquake"; the probability of an earthquake greater than that was determined to be "extremely low." The Court of Appeals concluded that the Commission's reasoning on this point was "rational and supported by the record." San Luis Obispo, supra, 789 F.2d at 37-38. The

Commission also determined that the occurrence of an earthquake contemporaneous with an independently caused radiological emergency is "so infrequent that * * * specific consideration is not warranted." The Court of Appeals found that that determination also was "supported by the record, not merely adequately but, * * * conclusively." Id. at 38-42. Finally, the Commission observed that emergency plans developed pursuant to NRC regulations "have considerable flexibility to handle the disruptions caused by various natural phenomena which occur with far greater frequency than do damaging earthquakes, and this implicitly includes some flexibility to handle disruptions by earthquakes as well." The Court of Appeals held that these observations about the flexibility inherent in radiological emergency plans were simple "common sense" and "entirely rational." Id. at 42-44.

The OAG here has not even attempted to distinguish San Luis Obispo; nor can he do so. Accordingly, there is no merit to the OAG's claim that emergency plans must be revised to consider the impact of an earthquake, prior to Davis-Besse restart.

j. Emergency Medical Services For Radiation Accident Victims

The OAG also challenges "the ability of area hospitals to treat victims of radiation poisoning." OAG Petition at 7. That challenge cannot be sustained.

NRC regulations require that offsite emergency plans include provisions for medical care for two types of radiological

accident victims: (1) contaminated injured individuals, and (2) individuals who have been exposed to dangerous levels of radiation. See Southern California Edison Co. (San Onofre Nuclear Generating Station, Units 2 and 3) CLI-83-10, 17 N.R.C. 528, 530 (1983), rev'd on other grounds, Guard v. NRC, 753 F.2d 1144 (D.C. Cir. 1985). The OAG appears to assume that a large number of hospital beds would be needed to treat victims in the event of a radiological emergency at Davis-Besse. That assumption is baseless.

Members of the public who are contaminated but have neither suffered traumatic injury nor received extreme exposure (200 rem) would not need any medical treatment. Decontamination would be a matter of washing with soap and water at one of the reception centers outside the EPZ. See Southern California Edison Co. (San Onofre Nuclear Generating Station, Units 2 and 3), ALAB-680, 16 N.R.C. 127, 136 n.11 (1982); Cleveland Electric Illuminating Co. (Perry Nuclear Power Plant, Units 1 and 2), LBP-85-35, 22 N.R.C. 514, 565 (1985).

Contaminated injured persons are those whose traumatic (i.e., physical) injuries are complicated by radioactive contamination. Such people need emergency care for their traumatic injuries, but special care must be taken to avoid the spread of loose contamination to other areas of the hospital. Relatively few people would be both contaminated and traumatically injured in a nuclear accident -- from one to perhaps 25 or so. These

people would be principally onsite workers who might become contaminated and injured during the course of an accident, but could also include members of the general public who become contaminated and then are injured (for example, in a traffic accident). San Onofre, supra, 16 N.R.C. at 137; Perry, supra, 22 N.R.C. at 525.

Nor is it likely that large numbers of the general public would receive such high doses of radiation as to warrant hospitalization, which is recommended for exposures of 150 to 200 rem delivered over the course of a few hours. San Onofre, supra, 16 N.R.C. at 138. In any event, immediate treatment is not required, providing additional time for authorities to arrange for medical treatment. San Onofre, supra, 17 N.R.C. at 535-36.

The emergency plans for the Davis-Besse area identify Magruder Hospital (in Port Clinton), St. Charles Hospital (in Oregon), and Fremont Hospital (in Fremont) as the local hospitals for treatment of radiological accident victims. Ottawa Co. Plan, §§ II.A.4.A.10, II.K.3.H; Lucas Co. Plan, § II.L. Personnel from these facilities have received extensive training on topics such as the biological effects of radiation, personnel protective actions, use of emergency room equipment and supplies for contaminated patients, contamination control techniques, and decontamination and bioassay procedures. Ottawa Co. Plan, § II.O; Lucas Co. Plan, § II.L.4.

In addition to these local hospitals, the State Plan lists other hospitals in the counties around the EPZ which could also treat victims of radiological accidents. State Plan, Figure II-L-1. All of the hospitals listed in the State Plan have been reviewed and accredited by the Joint Commission on Accreditation of Hospitals. Accreditation Standard V requires that each accredited hospital have procedures for:

The emergency management of individuals who have actual or suspected exposure to radiation or who are radioactively contaminated. Such action may include radioactivity monitoring and measurement; designation and any required preparation of space for evaluation of the patient, including, as required, discontinuation of the air circulation system to prevent the spread of contamination; decontamination of the patient through an appropriate cleansing mechanism; and containment, labeling, and disposition of contaminated materials.

Thus, JCAH-accredited hospitals (such as those listed in the State Plan) have approved procedures for the treatment of radiological accident victims.

Further, the primary hospital for the treatment of radiological accident victims has demonstrated its ability to treat radiological accident victims through both periodic medical drills and full exercises. Exercise performance has "demonstrated the capability of the State and local jurisdictions to cope with contaminated and injured individuals and provide them with medical services. * * * The State and local levels of emergency government took the necessary steps to insure adequate planning for

medical problems which may occur." FEMA Report on 11/6/80 Exercise, at 20. The NRC Staff concurred, noting in particular that "[t]he medical staff [of Magruder Hospital] performed well * * *. " NRC Inspection Report No. 80-31 (December 10, 1980).

In addition, Fremont Hospital successfully demonstrated its capabilities -- as observed by FEMA -- in an annual medical drill conducted as part of the Davis-Besse pre-exercise drill held on September 11, 1986. See also Ottawa Co. Plan, § II.N.4 (annual medical drill of Magruder Hospital); Lucas Co. Plan, § II.N.4 (annual medical drill of St. Charles Hospital). Thus the OAG's concerns about the ability of area hospitals to treat radiological accident victims lack merit and do not support the institution of enforcement proceedings here.

k. Ingestion EPZ Planning

The OAG next challenges "the adequacy of ingestion zone planning." OAG Petition at 7. However, both the facts and the law belie this assertion.

The OAG does not contend that there has been no planning for the Ingestion EPZ; nor could he do so. Indeed, Section IV of the State Plan is devoted entirely to the subject. That section of the plan includes, inter alia, a listing of state agencies with their responsibilities for ingestion pathway response, procedures for imposing protective measures (e.g., impoundment, decontamination, or destruction), and maps of land forms, watersheds, and

major water intake sites, as well as lists of major milk producers and alternate sources of prepared feed for livestock. Moreover, proficiency in the implementation of ingestion pathway protective measures has been demonstrated through exercises in the Davis-Besse EPZ. For example, the most recent exercise included a demonstration of management of ingestion pathway activities. FEMA approved those activities, noting that they "were performed promptly and were appropriate to the scenario problems." FEMA Report on 7/16/85 Exercise (October 4, 1985), at 32. FEMA further observed:

Sufficient information had been compiled by the EOC staff on milk animals, water intake points, and crops to manage protection of the ingestion pathway. This information appeared to be current and was based on actual field surveys. All relevant information was incorporated into County decision making.

Id. at 8, 35.

In essence, the OAG seems to seek more detailed planning for the ingestion pathway. However, as the Appeal Board has held, "comparatively less extensive planning * * * is required and possible for the ingestion EPZ":

Unlike the much smaller plume EPZ where evacuation or sheltering * * * may be a matter of immediacy, protective action in the 50-mile radius ingestion EPZ need not be as immediate. * * * Moreover, the kinds of ingestion EPZ protective action that would be suggested -- such as quarantining or disposing of certain foodstuffs in designated areas -- are highly site and accident specific: hence, they are less amenable to planning in advance of an accident than are the comparable responses of sheltering or evacuation that are appropriate for the plume EPZ.

Southern California Edison Co. (San Onofre Nuclear Generating Station, Units 2 and 3), ALAB-717, 17 N.R.C. 346, 373 (1983). Thus, the Commission's regulations properly do not require the detailed level of ingestion pathway planning which the OAG advocates. Accordingly, the OAG's ingestion pathway concerns provide no basis for the issuance of a "show cause" order to Licensee.

1. Plans for Reentry

Similarly, the OAG criticizes "procedures for determining when people could reenter an evacuated area." OAG Petition at 7. It is not clear whether he recognizes that plans for reentry and recovery already have been developed, which generally outline the conditions precedent to reentry of the EPZ and which provide for the formation of a "Recovery and Reentry Committee." See, e.g., State Plan, § II.M; Ottawa Co. Plan, § II.M; Lucas Co. Plan, § II.M. Recovery and reentry activities have also been demonstrated in exercises in the Davis-Besse EPZ. For example, the most recent exercise included a demonstration of recovery and reentry procedures. FEMA noted, with approval:

After de-escalation by the utility and the State, Ottawa County organized their recovery and reentry committee to discuss and develop recovery and reentry recommendations for the Executive Group. These discussions were extensive and complete which enabled the Executive Group to quickly consider the recovery and reentry recommendation and the Executive Group decisions were communicated promptly to all County response organizations and the EBS system * * * .

FEMA Report on 7/16/85 Exercise (October 4, 1985), at 10.

Accord, Id. at 16, 37-38. FEMA was particularly impressed by the "very thorough technical discussions about reentry." Id. at 4.

The OAG may be criticizing the general nature of recovery and reentry procedures. But, again, his position finds no support in the law.

The NRC regulation requires that "general" plans for recovery and reentry be developed. In recognition of the expected sequence and pace of events following an evacuation, the regulation does not contemplate the kind of detail in planning required for an emergency response. * * * Unlike evacuation, reentry should not (at least in most cases) be constrained by time. Those things that will have to be done before the return of people to their homes is advisable will depend on the radiological conditions that exist in the area evacuated. In this sense, plans must -- and should -- be ad hoc.

Southern California Edison Co. (San Onofre Nuclear Generating Station, Units 2 and 3), LBP-82-39, 15 N.R.C. 1163, 1207 (1982), aff'd, ALAB-717, 17 N.R.C. 346 (1983). Accord, Long Island Lighting Co. (Shoreham Nuclear Power Station, Unit 1), LBP-85-12, 21 N.R.C. 644, 880 (1985) (ruling that a plan to form an expert committee at the time of an accident to make recovery/reentry decisions "constitutes a reasonable plan for recovery and reentry"). This precedent applies with equal force here.

Thus, the Commission's regulations appropriately do not require that detailed recovery and reentry plans be prepared in advance of an emergency. Further, general plans for recovery and reentry in the event of an emergency at Davis-Besse already are

in place and have been demonstrated to be workable. For these reasons, the OAG's criticisms of recovery and reentry procedures do not support the initiation of enforcement action here.

m. Extended Relocation

The OAG is also concerned about planning for "relocation of populations if an area were to remain uninhabitable for an extended period of time" as a result of a radiological emergency. OAG Petition at 7. However, such concerns cannot provide a basis for the institution of enforcement proceedings against a licensee.

A similar contention was rejected in Metropolitan Edison Co. (Three Mile Island Nuclear Station, Unit No. 1), LBP-81-59, 14 N.R.C. 1211, 1653-54 (1981). Intervenors there alleged that a county plan was inadequate "due to its assumption that evacuees will be kept out of the evacuated area for only three days." TMI-1, supra, 14 N.R.C. at 1653. However, as the Licensing Board observed:

Neither the NRC's emergency planning regulations nor NUREG-0654 stipulate any minimum time that must be planned for the exclusion of evacuees from the evacuated area. * * * The basis for the three day evacuation * * * is that evacuees can carry with them minimum life support elements (such as clothing and special medicines) sufficient to sustain them for such a period without being overburdened * * *. If an evacuation lasts longer than three days, the three days currently planned for allows a sufficient and reasonable period of time to resupply essential needs to sustain evacuees beyond the three day period.

TMI-1, supra, 14 N.R.C. at 1653-54 (citations omitted). The Licensing Board therefore held planning for only a short-term evacuation to be adequate. 14 N.R.C. at 1654.

The reasoning of the TMI-1 decision is controlling here. The OAG has failed to show that Davis-Besse is in some way unique such that existing plans for short term evacuation could not be adapted if a more extended evacuation was indicated. Nor has he indicated why the broad range of disaster relief programs administered by FEMA in all types of natural and technological emergencies would not provide adequate assistance to those who might need public aid in an extended evacuation due to, e.g., a radiological emergency. Therefore, the issues raised by the OAG concerning extended relocation do not support the relief he seeks.

n. Evacuation Times in Adverse Winter Weather

The OAG also expresses concern about the time needed for evacuation during a severe snow storm. OAG Petition at 7. However, on the average, the EPZ area has only approximately 12 snowfalls per year of one inch or more. (National Weather Service, Toledo Express Airport). Thus, the EPZ area is not part of the "snowbelt."

Moreover, the impressive inventory of snow removal resources maintained by road departments in the EPZ counties indicates that those jurisdictions are quite well prepared to handle snow. That

inventory includes approximately 64 county-owned vehicles, with another 70 or so on contract to the counties. In addition, there are 8 to 12 State-owned snow removal vehicles in the immediate vicinity. See Ottawa Co. Plan, § II.J.2.H; Lucas Co. Plan, § II.J.6. Because the agencies charged with snow removal within the EPZ are well-equipped and staffed to keep the roads clear in a snowfall that is normal for the area, those conditions require no special consideration in radiological emergency planning for the Davis-Besse area. Indeed, most of the road departments within the EPZ are generally able to keep roads passable with no assistance even during a severe snow storm. And, in the unlikely event of an emergency at Davis-Besse during a blizzard, the resources of all road departments throughout the EPZ counties could be deployed to augment the resources of any road departments within the EPZ which might need assistance in keeping roads passable. Marshalling the resources of these road departments from outside the EPZ, the few road departments within the EPZ which might need assistance would have the capability to keep roads clear even in a blizzard. If needed, still more snow removal resources could be provided from outside the EPZ counties, through the Ohio Department of Transportation.

In addition, detailed estimates of the time required for evacuation of the Davis-Besse EPZ have been prepared, utilizing a state-of-the-art computer model.^{9/} In addition to simulating a

^{9/} That study, entitled "Development of Evacuation Time Estimates for Davis-Besse Nuclear Power Station," by KLD Associates,

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"fair weather" evacuation for various scenarios, the computer reduced road capacities system-wide to simulate the effects of midday snow in the middle of a week in winter. That modeling (reflecting capacity and speed reductions of 25%) indicates that winter storm conditions would not dramatically affect evacuation times.

In any event, the Commission does not require the capability to evacuate the EPZ within some specified period; there is no upper limit on evacuation time. Cincinnati Gas & Electric Co. (Wm. H. Zimmer Nuclear Power Station, Unit No. 1), ALAB-727, 17 N.R.C. 760, 762 (1983); Detroit Edison Co. (Enrico Fermi Atomic Power Plant, Unit 2), ALAB-730, 17 N.R.C. 1057, 1069 n.13 (1983); Louisiana Power and Light Co. (Waterford Steam Electric Station, Unit 3), LBP-82-100, 16 N.R.C. 1550, 1561 (1982). Indeed, "there is no requirement that evacuation be feasible under all foreseeable circumstances." Consumers Power Co. (Big Rock Point Plant), LBP-84-32, 20 N.R.C. 601, 691 (1984). As the Limerick Licensing Board observed:

No NRC or FEMA regulation requires that dose-saving evacuation be possible in any set of circumstances whatsoever. No realism worthy of the name could so require. Thus, every emergency plan makes sheltering an option.

(Continued)

is scheduled for submittal in early 1987. See Long Island Lighting Co. (Shoreham Nuclear Power Station, Unit 1), LBP-85-12, 21 N.R.C. 644, 783 (1985) (acknowledging KLD as "a recognized authority on traffic simulation models").

Philadelphia Electric Co. (Limerick Generating Station, Units 1 and 2), Docket Nos. 50-352-OL and 50-353-OL, "Memorandum and Order Rejecting AWPP's New Contention on Evacuation" (September 14, 1984). Thus, the OAG's concerns about the time for evacuation in adverse weather provide no basis for institution of an enforcement action.

o. Decontamination and Waste Disposal

The OAG also questions "decontamination procedures and waste disposal" provisions. OAG Petition at 7. But this challenge is devoid of merit.

Monitoring and decontamination of evacuees and vehicles in Lucas County will be performed at the reception center by the Oregon Fire Department. Monitoring and decontamination personnel would be provided with monitoring instruments as well as decontamination supplies. Sufficient resources are available to assure that all evacuees can be monitored within 12 hours. Figure K-3 of the County Plan reflects guidelines on the maximum acceptable levels of contamination. See Lucas County Plan, §§ II.J.4.e, II.K.

Monitoring and decontamination of evacuees and vehicles from Ottawa County will be performed at reception centers by the respective host county fire departments. Sufficient resources are available to assure that all evacuees can be monitored within 12 hours. Guidelines for maximum acceptable levels of contamination

are set forth in Figure K-3 of the County Plan, and monitoring and decontamination activities are conducted in accordance with written procedures. See Ottawa County Plan, §§ II.J, II.K.

Extensive training is provided for monitoring and decontamination personnel. Lucas County Plan, § II.O; Ottawa County Plan, § II.O. In addition, plan provisions for monitoring and decontamination (as well as waste disposal) have been demonstrated and evaluated in periodic exercises. During the most recent exercise, FEMA noted with approval:

There were two monitoring teams of three individuals each at the Reception Center. They were equipped with geiger counters (six total) which included probes and listening attachments. They were additionally equipped with mid-range dosimeters and chargers for the dosimeters. * * * [T]here is sufficient equipment and personnel (paid and volunteer) to conduct monitoring of all evacuees within a twelve hour period. Individuals needing decontamination would be segregated from the non-contaminated evacuees at the school's entry-way monitoring point. They would be routed to the respective male/female shower rooms, where they would shower for decontamination. After showering they are re-monitored until found to be free of contamination.

FEMA Report on 7/16/85 Exercise (October 4, 1985), at 34.

The plans also include provisions for waste disposal. Any contaminated materials (e.g., supplies, equipment, instruments, clothing, etc.) would be segregated and disposed of by the Ohio Environmental Protection Agency or by Licensee. See Lucas County Plan, § II.K.2.e; Ottawa County Plan, § II.K.3.F-G; FEMA Report on 7/16/85 Exercise (October 4, 1985), at 34. While the OAG

might desire more detailed waste disposal plans, they are not required. The Shoreham Licensing Board recently rejected a County's contention that definitive waste disposal arrangements must be made in advance of an accident:

It is not necessary to preplan at this stage for contingencies that [a recovery organization] can resolve at the time of an accident when it has the necessary information for decision making. None of the problems cited by the County, such as decontamination [and] radioactive waste disposal * * *, are novel or technically obscure. Their management depends on situation-specific information, and there is no advantage to public health and safety to solve them now in the abstract rather than at the time of the emergency when the specific facts of the situation are known.

Long Island Lighting Co. (Shoreham Nuclear Power Station, Unit 1), LBP-85-12, 21 N.R.C. 644, 880 (1985). In any event, Ohio's plans for waste disposal have been held to be sufficient. Cleveland Electric Illuminating Co. (Perry Nuclear Power Plant, Units 1 and 2), LBP-85-35, 22 N.R.C. 514, 526-27, 566-67 (1985). Accordingly, the plans for decontamination and waste disposal are adequate, and do not warrant the commencement of a "show cause" proceeding here.

p. Radiation Monitoring

The OAG next challenges the "adequacy of radiation monitoring." OAG Petition at 7. But this challenge, too, is lacking in merit.

Radiation monitoring is the responsibility of the State of Ohio.^{10/} The efficacy of the State's mobile radiation monitoring teams was recently confirmed in evidentiary hearings before the NRC Licensing Board. See Cleveland Electric Illuminating Co. (Perry Nuclear Power Plant, Units 1 and 2), LBP-85-35, 22 N.R.C. 514, 521-23, 563-64 (1985) (relying, in part, on State's demonstration of monitoring capability in eight exercises), aff'd, ALAB-841, 24 N.R.C. ____ (July 25, 1986) (slip op. at 68 n.168).

In addition, the State's radiation monitoring capability received high marks from FEMA in the most recent exercise at Davis-Besse:

Three teams, consisting of two monitoring persons per team, were dispatched to their assigned monitoring stations from the airport. Each team was equipped with the necessary equipment and materials to assess the radiation contamination conditions in the zone of interest. The State demonstrated that it can assemble the required number of field monitoring personnel and move them and their equipment * * * in a timely manner.

The field assessment team observed was familiar with their equipment and its use. They had no problem setting up the equipment for measuring the radioactivity of interest. Sample collection procedures * * * were in accord with EPA techniques * * *. The team was familiar with the area assigned to them and found their monitoring points easily.

^{10/} Until the State teams arrive in the field, dose assessment would be based on Licensee's data. This is permissible under the Commission's regulations. See Cleveland Electric Illuminating Co. (Perry Nuclear Power Plant, Units 1 and 2), LBP-85-35, 22 N.R.C. 514, 564 (1985).

FEMA Report on 7/16/85 Exercise (October 4, 1985), at 24-25. See also Id., at 4-5, 7, 23, 31. Accordingly, the State's radiation monitoring capability also provides no basis for commencement of a "show cause" proceeding.

q. Emergency Information for School Personnel

Finally, the OAG questions the "availability of emergency response information for school administrators, teachers and others charged with specific responsibilities." OAG Petition at 7. While the precise thrust of the OAG's concern is not apparent (and the OAG does not elaborate), it is clear that the radiological emergency preparedness program for EPZ schools meets all regulatory requirements.

As discussed in Section III.g, above, plans have been made for the evacuation of all EPZ schools in the event of a radiological emergency at Davis-Besse. The schools have been surveyed for relevant information (e.g., enrollment, bus availability, etc.) and appropriate reception centers have been identified. In addition, as discussed in Section III.h, a special emergency preparedness training program is being offered to bus drivers, and a series of informational meetings and briefings has been held with bus drivers, union leaders and school officials, to discuss school planning and to address any concerns bus drivers and other school personnel may have. In the event of an emergency, the Ottawa County Commissioners would make the decision to evacuate,

and the Ottawa County Superintendent of Schools would advise the superintendents of individual school districts of appropriate response actions. Because other school personnel involved in an evacuation would be doing essentially the same tasks they perform on a daily basis -- e.g., teachers supervising children, bus drivers driving buses -- no additional formal training is necessary for their roles in emergency response. See generally Kansas Gas & Electric Co. (Wolf Creek Generating Station, Unit 1), LBP-84-26, 20 N.R.C. 53, 69-70, 97-98 (1984) (school personnel require no special training where emergency roles do not entail decisionmaking responsibilities or specialized knowledge).

In any event, all teachers at schools within the EPZ will receive a copy of the emergency public information packet distributed annually throughout the EPZ. In addition, all school systems in the EPZ will have reference copies of the emergency plan on file. See Ottawa Co. Plan and Lucas Co. Plan, Distribution Lists. Thus, the OAG's reservations about emergency response information for school personnel do not support enforcement action and, in fact, lack basis.

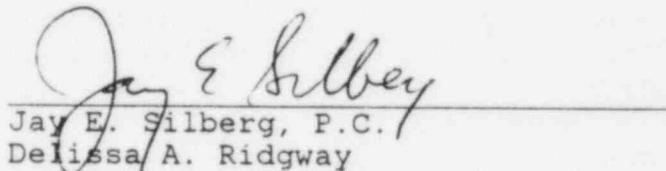
IV. Conclusion

Emergency planning is a continuing process, and it is continuing at Davis-Besse; moreover, the process will continue throughout the life of the plant. Enhancements to preparedness within the EPZ are in progress now, and if other needed changes

are identified by the State, the counties, FEMA, the NRC or Licensee, they will be made. It does not follow, however, that Davis-Besse must sit idle. Indeed, the regulations provide to the contrary. See 10 C.F.R. § 50.54(s)(2)(ii).^{11/}

Here, neither the OAG nor TCSE has advanced evidence of even a single violation of the Commission's regulations. Certainly, there is no evidence of a "substantial health and safety issue" to warrant the initiation of enforcement action. Accordingly, the petitions of the OAG and TCSE must be denied.

Respectfully submitted,



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Dated: November 12, 1986

^{11/} Under that provision, enforcement action (including the shutdown of a reactor) as a result of emergency planning deficiencies occurs only after (1) the Commission finds that there is no reasonable assurance that adequate protective measures can and will be taken in the event of a radiological emergency and (2) the deficiencies have not been corrected within four months of that finding. Here, the Commission has not even made the requisite finding (and, as shown above, there are no grounds for it to do so) which would trigger the four month period for corrective action. Thus, even if the OAG or TCSE had identified significant emergency planning shortcomings (which they have not), the conditions precedent to enforcement action, set forth in the NRC regulations, have not been met.

Attachment A

<u>School District</u>	<u>Bus Type</u>	<u>Capacities</u>
1. Riverview School Training Center	3/16 1/14 1/24 + 7 (Wheelchair) 1/21 + 4 (Wheelchair) 1/19 + 6 (Wheelchair) 1/10 + 2 (Wheelchair) 3/25 + 7 (Wheelchair)	48 14 24 + 7 (Wheelchair) 21 + 4 (Wheelchair) 19 + 6 (Wheelchair) 10 + 2 (Wheelchair) <u>75 + 7 (Wheelchair)</u>
		211 + 26 (Wheelchair)
2. Benton-Carroll-Salem	24/65	1,560
3. Port Clinton	23/66	1,518
*4. Oregon	53/65	3,445
*5. Danbury	9/66	594
*6. Woodmore	9/65 1/24	585 24
*7. Genoa Area	8/72 9/66 1/65 1/12	576 594 65 <u>12</u>
		<u>1,247</u>
	TOTAL	9,184

* Non-EPZ Schools

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November 12, 1986

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UNITED STATES OF AMERICA
NUCLEAR REGULATORY COMMISSION

OFFICE OF LEGAL COUNSEL
DOCKETING & SERVICE
BRANCH

BEFORE THE DIRECTOR, OFFICE OF INSPECTION AND ENFORCEMENT

In the Matter of)
TOLEDO EDISON COMPANY, et al.) Docket Nos. 50-346
(David-Besse Nuclear Power) (10 C.F.R. § 2.206)
Station, Unit No. 1)

CERTIFICATE OF SERVICE

I hereby certify that copies of "Licensee's Response To § 2.206 Petitions of Ohio Attorney General and Toledo Coalition/Carter" were served this 12th day of November, 1986, by deposit to all those listed on the attached Service List, except that those marked with a single asterisk have been served by hand.

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