



# Federal Emergency Management Agency

Washington, D.C. 20472

MAY 1 1985

MEMORANDUM FOR: Edward L. Jordan  
Director, Division of Emergency Preparedness  
and Engineering Response  
Office of Inspection and Enforcement  
U.S. Nuclear Regulatory Commission

FROM: *Burton W. Krimm*  
Richard W. Krimm  
Assistant Associate Director  
Office of Natural and Technological  
Hazards Programs

SUBJECT: Ohio Schedule of Corrective Actions for Deficiencies  
Identified During the Perry Nuclear Power Plant (NPP)  
Offsite Radiological Emergency Preparedness (REP) Exercise  
Conducted on November 28, 1984

440  
50-277  
50-228  
441

Attached are the schedules of corrective actions submitted by the State of Ohio and the Counties of Ashtabula, Geauga and Lake for the deficiencies noted in the Final Report for the Perry NPP Offsite REP Exercise conducted on November 28, 1984. The exercise report was sent to you on January 31, 1985.

The Federal Emergency Management Agency (FEMA) Headquarters and Region V staff have reviewed the schedules of corrective actions submitted by the State and Counties and found them adequate with the following exceptions. Geauga County's response to the K.3.a/K.3.b deficiency (radiological exposure control for emergency workers) is not acceptable for two reasons. First, FEMA does not accept the Geauga County position that the Ohio Department of Transportation (ODOT) crew "...stationed at the access control point did not have emergency duties within the EPZ. " The Federal evaluation position is that the ODOT crew did have emergency duties within the EPZ and should have been issued proper dosimetry equipment. Secondly, the County stated in its response that "...recent discussion with ODSA (Ohio Disaster Services Agency) have indicated that equipment care, usage, distribution and personnel training for ODOT personnel is the responsibility of ODSA and will be addressed as such." If this is the case, this would become a Category B deficiency for Ohio, and the State would have to submit a corrective action for the deficiency. Lastly, Ohio has been requested to provide a revised schedule of corrective actions for Ashtabula, Geauga and Lake Counties which specifies the expected completion date for correcting each of the deficiencies.

FEMA Region V has provided this information to the State and requested a revised schedule of corrective actions. As soon as we receive and analyze the response, we will send you the results.

If you have any questions, please contact Mr. Robert S. Wilkerson, Chief, Technological Hazards Division, at 646-2861.

Attachments  
As Stated

3505030221 850501  
PDR ADCK 05000440  
F PDR

1E 35

Perry  
MAR 18 1985

STATE OF OHIO  
ADJUTANT GENERAL'S DEPARTMENT  
2825 WEST GRANVILLE ROAD  
WORTHINGTON, OHIO 43085-2712

DISASTER SERVICES AGENCY

AGOH-DS

March 4, 1985

Mr. Wallace Weaver  
Federal Emergency Management Agency  
Region V  
300 South Wacker Drive  
Chicago, IL 60606

Dear Mr. Weaver:

This correspondence is in reply to your final report of the Perry Nuclear Power Plant exercise conducted on November 28, 1984. Included is a brief description of the deficiencies found, the manner in which the deficiencies will be corrected, and the scheduled date for corrective action by the following participants: the State of Ohio, Ashtabula, Geauga and Lake Counties.

If any additional details are needed for your evaluation, please contact Kenneth Cole of my staff at (614) 889-7157.

FOR THE DIRECTOR



RICHARD M. LOCKHART  
Deputy Director

LAG:kjs

Attachment: as stated

UTILITY: Perry Nuclear Power Plant  
Summary Listing of Deficiencies and Corrective Actions

March 4, 1985

Ohio  
(State)

Ohio  
(Community)

<u>NUREG Item</u>	<u>Narrative Statement of Deficiency</u>	<u>Corrective Action Proposed</u>	<u>Scheduled Date</u>
A.4	Around the clock staffing capability at the EOF was not demonstrated as outlined in the State of Ohio Plan.	It was never the intent of the State to have more than one functioning representative at the EOF. Both the ODOH and ODSA representatives are fully trained to independently handle any duty as liaison. Each serves 2 shifts on and 1 shift off (16 hours on, 8 hours off) so that there is 24 hour coverage and periods of increased activity can have double staffing (8 hours per day can be double staffed). The text on page II-C-2 and II-C-10 (II-C-2-b-3 and II-C-3-c-1-b) address this criteria. The text on page II-I-5 (II-I-3-a-5) will be clarified in the next plan revision.	May 31, 1985
E.7	Information contained in the EBS messages was not released at the JPIC.	All messages released through the EBS will be provided to the JPIC for distribution to the media.	May 31, 1985
F.1.b.	The five-way telephone link proved unreliable during the exercise.	The five-way dedicated line was installed in segments during the weeks and days prior to the exercise, and was tested fully only a few times. Its failure during the exercise involved two connectors and remedial action was prompt.	April 9, 1985

UTILITY: Perry Nuclear Power Plant  
Summary Listing of Deficiencies and Corrective Actions (cont'd.)

<u>NUREG Item</u>	<u>Narrative Statement of Deficiency</u>	<u>Corrective Action Proposed</u>	<u>Scheduled Date</u>
F.1.b. (cont'd.)		<p>Since the exercise, the telephone company has spent considerable time "debugging" and testing the line. There were three separate tests of the entire system including one which involved activating the circuits for about 24 hours. Additional tests were conducted to ensure that the system will maintain its same level of loudness over an extended period. The five-way dedicated system was fully operational at the time the telephone company completed its work in January 1985.</p> <p>The parties to the line (PNPP, Ohio DSA, and Ashtabula, Geauga and Lake County DSAs) have agreed to participate in a regular monthly check to ensure the continued operability and quality of the system. A day and time each month has been established and a "Periodic Test Instruction" procedure is being written. The first such test is scheduled for April 1985.</p> <p>It is worth noting that the evaluators stated "backup communications functioned effectively and communications were not inhibited during the exercise."</p>	

UTILITY: Perry Nuclear Power Plant

Summary Listing of Deficiencies and Corrective Actions (cont'd.)

<u>NUREG Item</u>	<u>Narrative Statement of Deficiency</u>	<u>Scheduled Date</u>
1.8.	The OEPA member of the field monitoring team was not familiar with his sampling procedures.	The field monitoring team members will be trained in proper sampling procedures. Field monitoring and sampling will be an objective of the July exercise for the Davis-Besse Nuclear Power Station.
		May 31, 1985



# COUNTY OF ASHTABULA

## EMERGENCY MANAGEMENT AGENCY

25 West Jefferson Street

Jefferson, Ohio 44047

(216) 576-9090, 576-9148

Mike Wheeler  
Emergency  
Management  
Coordinator

March 12, 1985

Mr. Ken Cole  
Ohio Disaster Services  
2825 West Granville Road  
Worthington, Ohio 43085

Dear Ken,

Attached are the responses to the FEMA exercise held on November 28, 1984.

The deficiency's have all ready been corrected with the changes being made in the plan and standard operating procedures as required.

I would like to point out that the Ashtabula County Medical Center is properly equipped for this type of emergency. I feel that the evaluator for FEMA was not listening to the hospital spokesperson. I can assure you that the hospital does have the equipment, and the staff is well trained. I feel that this should not have been listed as a deficiency.

If you have any questions please contact me.

Sincerely,

K. Michael Wheeler, Director  
Ashtabula County Emergency Management Agency

KMW/jf

cc County Commissioners  
Dick Hall  
Bill Coleman

Deficiency: Information contained in the EBS messages was not released at the JPIC.

E.7.

The information in the EBS messages was presented orally by the Lake County Public Information Officer from the stage at the JPIC. It was not presented to the news media in written form. Procedures for the Public Information Officers (located at the JPIC) and the Public Information Liaison Officers (located in the county EOCs) of Ashtabula, Geauga, and Lake Counties will be changed to facilitate the distribution of each EBS message in written form to news media personnel at the JPIC.

Deficiency: The five-way telephone link proved unreliable during the exercise.

F.1.6

The five-way dedicated line was installed in segments during the weeks and days prior to the exercise, and was tested fully only a few times. Its failure during the exercise involved two connectors and remedial action was prompt. Since the exercise, the telephone company has spent considerable time "debugging" and testing the line. There were three separate tests of the entire system to include one which involved activated circuits for about 24 hours. Additionally tests were conducted to ensure that the system will maintain its same level of loudness over an extended period. The five-way dedicated system was fully operational at the time the telephone company completed its work in January 1985.

The parties to the line (PNPP, Ohio DSA, and DSAs of Ashtabula, Geauga, and Lake Counties) have agreed to participate in a regular monthly check to ensure the continued operability and quality of the system. A day and time each month has been established and a "Periodic Test Instruction" procedure is being written. The first such test is scheduled for April 1985.



Deficiency: Emergency workers in the field did not have mid and low range dosimeters and record keeping cards.

K.3a.4

K.3.b.

The emergency plan will be changed to indicate clearly that each off-site emergency worker who is within the plume exposure pathway emergency planning zone (EPZ), has work assignment within the EPZ, or is a member of a decontamination monitoring team will be issued one CDV-730 (mid range) dosimeter, one CDV-742 (high range) dosimeter, one TLD, and a "Dosimetry Report Form." The plan will not prescribe a low range dosimeter since published guidance specifies the mid range and high range direct reading dosimeters and a TLD.

"... it is recommended that all local emergency workers be equipped with two direct reading gamma dosimeters; one with a range of 0 to 20 R and one with a range of 0 to 200 R. These two dosimeters should provide for continuous coverage from 0.4 to 200 R which is well beyond any anticipated whole-body gamma exposure. They will also provide some redundancy by their overlapping ranges (0.4 to 20 R and 4.0 to 200 R).

To offset the disadvantages of the direct reading dosimeter, all emergency workers could be provided with a thermoluminescent dosimeter as well as the two direct reading dosimeters. This dosimeter would also measure whole-body gamma radiation dose for the dual purpose of (1) providing a redundant measurement of the accrued dose, and (2) providing a measurement of the accrued dose of less than as well as in excess of the range of the direct reading dosimetry (0.4 to 200 R)."

Guidance On Off-site Emergency Radiation Measurement,  
FEMA Rep 2, September 1980.

Narrative description in the Exercise Report indicates that workers should have "... record cards to record their hourly exposure readings." (page 48). Emergency workers are provided with a "Dosimetry Report Form" which asks for "Before" and "After" readings and a "Mission Total". This form constitutes the County's dosimeter recording procedure; apparently it was not seen by the exercise evaluator since the field people participating in the exercise were all carrying this form. There is no published guidance indicating that readings from direct reading dosimeters should be recorded hourly. The County considers such a procedure bureaucratic and ill-advised in that the worker can at any time simply read the direct reading dosimeters and compare this reading with the "Before" reading to ascertain the current total dose. The "Dosimetry Report Form" instructions direct the emergency worker to "Read each CDV-742 each half hour."



Deficiency: EOC staff did not have an opportunity to actively monitor emergency worker exposure.

K.3.b.

Pre-exercise agreement with FEMA was that traffic control points would be activated at the proper time in the scenario and personnel at such points would remain until observed by the exercise evaluator. Once the evaluator had concluded the evaluation the traffic control points were to be dismissed. This agreement was in consideration of the policemen's and road crew's time (and cost) in that they would have no activity (they do not actually stop or direct traffic in an exercise) except an occasional message to the EOC. In this instance the evaluator concluded his observations and questioning in short order.

In future exercises traffic control personnel will make at least one communication to the EOC indicating dosimeter readings.

Deficiency: The Saybrook Fire Station is not an adequate facility for use as a decontamination center.

K.5b

The Saybrook Fire Station will be either (1) replaced as a decontamination station or (2) arrangements in or near the station will be made to correct the shower and drain water situation.

Deficiency: The hospital emergency room staff did not demonstrate all of the equipment necessary to handle a contaminated injured victim.

L.1.

FEMA, Ohio DSA, and Ashtabula DSA made arrangements to conduct exercise activities at the hospital out of synchronization with the overall exercise scenario. This arrangement was made in consideration of historical real patient load in the emergency department at various times of the day. Ashtabula County DSA and the Ashtabula County Medical Center are appreciative of efforts to reduce the likelihood of exercise play interfering with actual emergencies (or vice versa). Part of these arrangements included simulating the arrival of the ambulance since the ambulance play would be demonstrated at the accident location in synchronization with the scenario. With the exception of the ambulance the hospital staff demonstrated proper receipt of the patient. The statement on page 58 of the Exercise Report - "The staff, through improvisation of unavailable items of equipment ..." - appears to be an unwarranted declaration that the hospital is not properly equipped.

Similarly, the Exercise Report (page 58) indicates that the "... spokesperson was unaware of the availability of a health physicist." The evaluator appears to have not heard, or did not comprehend, that professional staff who are not titled "health physicist," but indeed have equal or greater training in the medical and radiation fields, were brought to bear on the exercise patient.

Whole Body retention trays (page 58, Exercise Report) are not a requirement for a "local" hospital (NUREG-0654; FEMA-Rep-1, Rev. 1, item L.1.) although such equipment seems appropriate for the power plant's designated support hospital (Lake County Memorial Hospital East). Ashtabula County Medical Center staff did demonstrate cleansing of the patient with appropriate catch trays. A water retention receptical with associated paraphernalia was present in the treatment/decontamination room but it was not demonstrated. In future exercises participants will be instructed to demonstrate fully the equipment and supplies on hand.

**County of Lake**  
OFFICE OF  
**DISASTER SERVICES AGENCY**  
39 FAIRDALE STREET  
PAINESVILLE, OHIO 44077

February 28, 1985

Mr. Kenneth Cole  
Ohio Disaster Services Agency  
2825 West Granville Road  
Worthington, OH 43085

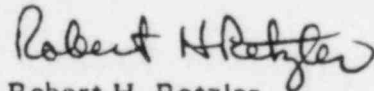
Dear Ken:

Please find enclosed Lake County Disaster Services Agency's response to the FEMA Exercise Report of January 18, 1985, for the Perry Nuclear Power Plant Joint Exercise held on November 28, 1984. Please forward these responses to FEMA, Region V or include them in your response submittal to FEMA.

Thank you for your assistance in our training and exercise arrangements.

Respectfully,

LAKE COUNTY DISASTER SERVICES AGENCY



Robert H. Retzler  
Director

RHR:mb

Enclosure

## LAKE COUNTY, OHIO, RESPONSE TO FEMA EXERCISE EVALUATION

**Deficiency:** Information contained in the EBS message was not released at  
(Item E.7.) the JPIC.

**Response:** Each EBS message released will be telecopied, in its entirety, from the Lake County EOC to the JPIC. Public Information Officers (in the JPIC) and Public Information Liaison Officers (located in County EOC's) will have procedures to ensure proper distribution of the EBS messages.

**Deficiency:** The five-way telephone link proved unreliable during the  
(Item F.1.b.) exercise.

**Response:** The five-way dedicated line failure during the exercise involved two connectors. Since the exercise, the telephone company has spent considerable time "debugging" and testing the line. Since the corrections were incorporated there have been three separate tests of the entire system of which one involved activating circuits for approximately twenty-four (24) hours. Additionally, tests were conducted to ensure that the system will maintain the same level of volume over an extended period. The five-way dedicated system was fully operational at the time the telephone company completed its work in January 1985.

The parties to the line (PNPP, Ohio DSA, DSA's of Ashtabula, Geauga and Lake Counties) have established an agreement to participate in a regularly scheduled monthly check to ensure the continued operability and quality of the system. A day and time each month has been established and a "Periodic Test Instruction" procedure is being written. The first such test is scheduled for April 1985.

**Deficiency:** Lake County was using a perimeter control map different from  
(Item J.10.j.) that shown in its 10-08-84 version of the plan.

**Response:** The perimeter control point map in the plan will be updated to show the current perimeter control points. This map will coincide with the EOC perimeter control point map used in conjunction with exercises or an actual situation.

All three counties (Ashtabula, Lake and Geauga) will coordinate their perimeter control points and maintain their EOC maps with information supplied by the other involved counties.

**Deficiency:** The Reception Center Manager did not have sufficient working  
(Item J.12.) knowledge of the facility's plan for operation.

**Response:** Additional training will be conducted to ensure the Reception Center Manager and other key personnel have a working knowledge of the facility's overall plan for operation and the agencies, departments, and resources utilized to implement the facility's plan.

**Deficiency:** Emergency workers in the field did not have mid and low range  
(Item K.3.a., dosimeters and record keeping cards.  
K.3.b.)

**Response:** The emergency plan will be revised to indicate clearly that each off-site emergency worker who has a work assignment within the EPZ, or is a member of a decontamination monitoring team will be issued one CDV-730 (mid-range) dosimeter, one CDV-742 (high-range) dosimeter, one TLD and a "Dosimetry Report Form." The plan will not prescribe a low range dosimeter since published guidance specifies the mid range and high range direct reading dosimeters and a TLD.

"... it is recommended that all local emergency workers be equipped with two direct reading gamma dosimeters; one with a range of 0 to 20 R and one with a range of 0 to 200 R which is well beyond any anticipated whole-body gamma exposure. They will also provide some redundancy by their overlapping ranges (0.4 to 20 R and 4.0 to 200 R).

To offset the disadvantages of the direct reading dosimeter, all emergency workers could be provided with a thermoluminescent dosimeter as well as the two direct reading dosimeters. This dosimeter would also measure whole-body gamma radiation dose for the dual purposes of (1) providing a redundant measurement of the accrued doses, and (2) providing a measurement of the accrued doses of less than as well as in excess of the range of the direct reading dosimetry (0.4 to 200 R)."

Guidance On Off-Site Emergency Radiation Measurement,  
FEMA Rep 2, September 1980.

Emergency workers are provided with a "Dosimetry Report Form" which asks for "Before" mission and "After" mission readings and a "Mission Total." This form constitutes the County's dosimeter recording procedure and all emergency workers participating in the exercise carried this form.

**Response:** (Continued)

There is no published guidance indicating that readings from direct reading dosimeters should be written down on record keeping cards hourly. Under the current procedure an emergency worker can, at any time, simply read the direct reading dosimeters and compare this reading with the reading recorded before the mission began to determine the current total dose. The "Dosimetry Report Form" instructions direct the emergency worker to "Read each CDV-742 each half hour." Therefore, the current procedure satisfies the present guidelines for emergency worker exposure control.

**Deficiency:** Radiological release data forms were not completely filled out.  
(Item O.4.j.)

**Response:** Procedures and forms for recording information transmitted by telephone will be reviewed and changed, if necessary. Any changes made will be inserted into training programs for personnel using the procedures and forms for recording information transmitted by telephone.





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# County of Geauga

13281 PAINESVILLE-RAVENNA ROAD • GEAUGA COUNTY SAFETY CENTER  
CHARDON, OHIO 44024

## DISASTER SERVICES AGENCY

PHONE (216) 285-2222, EXT. 603

DIRECTOR  
DALE B. WEDGE

February 26, 1985

DEPUTY DIRECTOR  
RONNIE N. EGING

Ken Cole  
Ohio Disaster Services Agency  
2825 W. Granville Road  
Worthington, Ohio 43085

Dear Ken:

Attached are my responses to the FEMA Exercise Report (1/18/85) of the evaluated exercise held on 28 November 1984. You may relay these responses directly to FEMA or consolidate their response with yours and the County responses.

Thank you for your assistance in our training and exercise arrangements.

Sincerely yours,

*Dale B. Wedge*

Dale B. Wedge  
Director

DBW/pl

Attachment

## SECTION DEFICIENCIES

### 1. EOC (E.1.)

The notification of "Unusual Event" received via commercial telephone was not verified.

#### Corrective Response

Procedure for the Sheriff's Department and EOC Dispatcher, where appropriate, will be revised to more clearly address notification/verification procedures by means other than the five-way dedicated telephone line. Training will also emphasize the actions needed during such occurrences as system failure.

### 2. Media Relations (E.7.)

Information contained in the EBS message was not released at the JPIC, e.g., presentation of protective action recommendations in terms of familiar landmarks or boundaries.

#### Corrective Response

The information in the EBS messages was presented orally by the Lake County Public Information Officer from the stage at the JPIC. It was not presented to the news media in written form. Procedures for the Public Information Officers (located at the JPIC) and the Public Information Liaison Officers (located in the county EOCs) of Ashtabula, Geauga, and Lake Counties will be changed to facilitate the distribution of each EBS message in written form to news media personnel at the JPIC.

### 3. EOC (F.1.b.)

The five-way telephone link proved unreliable during the exercise.

#### Corrective Response

The five-way dedicated line was installed in segments during the weeks and days prior to the exercise, and was tested fully only a few times. Its failure during the exercise involved two connectors and remedial action was prompt. Since the exercise, the telephone company has spent considerable time "debugging" and testing the line. There were three separate tests of the entire system to include one which involved activated circuits for about 24 hours. Additionally tests were conducted to ensure that the system will maintain its same level of loudness over an extended period. The five-way dedicated system was fully operational at the time the telephone company completed its work in January 1985.

The parties to the line (PNPP, Ohio DSA, and DSAs of Ashtabula, Geauga and Lake Counties) have agreed to participate in a regular monthly check to ensure the continued operability and quality of the system. A day and time each month has been established and a "Periodic Test Instruction" procedure is being written. The first such test is scheduled for April, 1985.

#### 4. Radiological Exposure Control (K.3.a.)

Emergency workers in the field did not have mid and low range dosimeters and record keeping cards.

##### Corrective Response

The emergency plan will be changed to indicate clearly that each off-site emergency worker who is within the plume exposure pathway emergency planning zone (EPZ), has work assignment within the EPZ, or is a member of a decontamination monitoring team will be issued one CDV-730 (mid range) dosimeter, one CDV-742 (high range) dosimeter, one TLD, and a "Dosimetry Report Form." The plan will not prescribe a low range dosimeter since published guidance specifies the mid range and high range direct reading dosimeters and a TLD.

A narrative description in the Exercise Report indicates that workers should have "... record cards to record their hourly exposure readings." (page 48). Emergency workers are provided with a "Dosimetry Report Form" which asks for "Before" and "After" readings and a "Mission Total". This form constitutes the County's dosimeter recording procedure; apparently it was not seen by the exercise evaluator since the field people participating in the exercise were all carrying this form. There is no published guidance indicating that readings from direct reading dosimeters should be recorded hourly. The County considers such a procedure bureaucratic and ill-advised in that the worker can at any time simply read the direct reading dosimeters and compare this reading with the "Before" reading to ascertain the current total dose. The "Dosimetry Report Form" instructions direct the emergency worker to "Read each CDV-742 each half hour."

Guidance On Off-site Emergency Radiation Measurement,  
FEMA Rep 2, September 1980.

#### 5. Worker Exposure Control (K.3.a., K.3.b.)

The ODOT crew assigned to the access control point did not have the proper dosimetry equipment, did not know how to obtain it and would not know how to use it. There was no exposure control for their emergency workers.

##### Corrective Response

The ODOT crew that was stationed at the access control point did not have emergency duties within the EPZ. During the preparation for exercise participation it was felt that it was better to not try and "second guess" or "overplay" the evaluator. However, recent discussion with ODSA have indicated that equipment care, usage, distribution and personnel training for ODOT personnel is the responsibility of ODSA and will be addressed as such.