



# Federal Emergency Management Agency

Washington, D.C. 20472

DEC - 7 1984

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

FROM: *Richard W. Krimm*  
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Assistant Associate Director  
Natural and Technological  
Hazards

SUBJECT: Exercise Report and Schedule of Corrective Actions for  
the March 21, 1984, Exercise of the Offsite Radiological  
Emergency Preparedness Plans for the Arkansas Nuclear One  
Power Station

Attached are two copies of the Exercise Report of the March 21, 1984, joint exercise of the offsite radiological emergency preparedness plans for the Arkansas Nuclear One Power Station. The State of Arkansas and the Counties of Pope, Logan, Johnson, Yell, and Conway participated in the exercise. The exercise report dated August 3, 1984, was prepared by the Federal Emergency Management Agency's Region VI staff.

Also attached is a schedule of corrective actions for the deficiencies identified during the exercise. The corrective actions proposed by the State of Arkansas are appropriate and adequate to address the deficiencies. The State and local plans are adequate to protect the public health and safety and there is reasonable assurance that appropriate protective measures can be taken offsite in the event of a radiological emergency; therefore, the 44 CFR 350 approval will remain in effect.

If you have any questions, please contact Robert S. Wilkerson, Chief, Technological Hazards Division, at 287-0200.

Attachment  
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**TABLE 2 Deficiency Tracking and Schedule for Corrective Actions**

Deficiencies and FEMA/RAC Recommendations for Corrective Actions	State (S) and Local (L) Proposed Corrective Actions	Proposed Completion Date	FEMA Evaluation of State and Local Corrective Actions and Determination of Adequacy or Inadequacy	Actual Completion Date
CATEGORY "A" DEFICIENCIES - NONE				
CATEGORY "B" DEFICIENCIES:				
<u>State Emergency Operations Center - Conway</u>				
<p>1. <u>Description:</u> The Governor's State of Emergency proclamation was not communicated from the State EOC to the TOCC through the proper communication channel (NUREG-0654, II, A.3).</p> <p><u>Recommendation:</u> The State EOC should promptly communicate the notice and details of the Governor's State of Emergency Proclamation through the proper communications channel to TOCC.</p>	<p>State will see that this is done properly at all future exercises.</p>	<p>5/1/85</p>		
<u>Technical Operations Control Center (TOCC)</u>				
<p>2. <u>Description:</u> The State EOC was not informed of the General Emergency until one hour and 45 minutes after it occurred (NUREG-0654, II, D.4).</p>	<p>The AR Dept. of Health will assign a staff member at the TOCC to notify the State EOC at Conway of EAL and PAD info by commercial telephone. Plans being amended to reflect this change.</p>	<p>5/1/85</p>	<p>FEHA will observe again in FY85 exercise.</p>	

TABLE 2 (Cont'd)

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<p><u>Recommendation:</u> The TOCC should promptly inform the State EOC of all emergency status changes.</p>				
<p>3. <u>Description:</u> Protective Action Recommendations were not effectively coordinated based on information received (NUREG-0654, II, E.5, E.7). <u>Recommendation:</u> Protection Action Recommendations should be improved by TOCC to provide for better communications.</p>	<p>A directive was issued at 1300 for cattle in certain areas of Pope County to be placed on stored feed. At 1415, A recommendation was issued which <u>RELAXED</u> the recommendation made at 1300, but did not <u>RESCIND</u> it. The relaxed recommendation reduced the size of the affected areas in Pope County, but did not eliminate the need to have cattle in some areas of the county placed on stored feed. Apparently, the observer assumed that "relaxed" meant "rescind". That assumption was wrong. The news briefing held at 1510 at the EOF stating that cattle in parts of Pope County were still on stored feed was, therefore, correct.</p>	Closed	Explanation by State is satisfactory.	Closed
<p>4. <u>Description:</u> At the time the TOCC requested evacuation of the London School they did not call the Pope County EOC concerning their actions. Local plans (Sec. VI, B.9) call for the Local EOC to notify schools of potential evacuation after notification of an alert (NUREG-0654, II, J.10).</p>	See Attachment #1.	3/21/84	We accept your explanation of what and why it happened. Also agree that it is a responsibility of TOCC to do, but feel since there was some difference in interpretation of the plans by local officials at Pope & Johnson County that the local plans Part VI B.9. should be expanded to say this is to act as a back-up call to the TOCC or something similar.	

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<p><u>Recommendation:</u> Coordination should be established between TOCC and local EOCs regarding notification of schools. If TOCC is to assume this responsibility, local plans should be revised to reflect that.</p>				
<u>Field Monitoring Activities</u>				
<p>5. <u>Description:</u> Surface contamination smears of soil sample containers were collected improperly; the filter was held with tongs which is an ineffective method. A standard area for wiping was not used (NUREG-0654, II, 1.8).</p> <p><u>Recommendation:</u> Training should be provided in proper collection of smear samples. The filter should be pressed down firmly on suspected contaminated surface and rubbed hard enough, and over a sufficient area, to pick up sufficient radioactivity to measure. The</p>	<p>This item does not qualify as a category "B" deficiency and we request that it be deleted as such. While the method used was inappropriate, the sample container was wiped and the area wiped was at least 100 cm<sup>2</sup>. Furthermore, personnel do know correct wipe procedures and this incident represented a single case of oversight.</p>	<p>5/31/84</p>	<p>FEMA will accept the possibility of an oversight; however, would like to observe again at next exercise.</p>	

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<p>area wiped should be a standard area such as 10 cm x 10 cm = 100 cm<sup>2</sup>.</p>				
<p>6. <u>Description:</u> When the utility failed to provide important data on release rates and stability class, the ADH did not make efforts to require the utility to transmit this data which was needed for their independent dose assessment projections (NUREG-0654, II, J.10). <u>Recommendation:</u> Training should be provided to ADH staff receiving messages to ensure that follow up is made in requiring this information from the utility during transmittal.</p>	<p>According to our records, page 3 of the EAL was not transmitted during the early part of the exercise. The members of the Arkansas Nuclear Planning and Response Staff called the AP&amp;L Duty Emergency Coordinator at least five (5) times to request EAL page 3 information, which includes stability, etc. The utility response was that the information was not available and declined to supply it. It is therefore, completely untrue that the state did not make an attempt to secure this information. The State of Arkansas trains all personnel who will deal with the EAL transmittal forms, to include local government. After activation at the TOCC, in a real emergency or during an exercise, reception of EAL transmittal information is assigned to a message clerk. This person is instructed to require that all information specified by the class of emergency involved is received. However, this message clerk is not of supervisory level. It is the clerk's duty to inform a supervisor that full EAL information is not being received. This supervisor has the authority to communicate with management level at the plant to request correction of the problem. This was done in this case several times. Training of personnel who deal with EALs will continue.</p>	<p>3/21/84</p>	<p>FEMA will accept the State's response, however will observe again in the FY85 exercise.</p>	
<p>7. <u>Description:</u> Iodine measurements were not reported by the field teams for use in supplementing the gamma readings (NUREG-0654, II, I.9).</p>	<p>Procedures and associated report forms have been formulated for making iodine measurements in the field by field teams. The field team members have been trained in these procedures and the use of the forms. Also, a more sensitive analysis of iodine concentrations on the filters is possible at the TOCC. In either or both cases, the data will be given to the Dose Assessment Officer for conversion to dose rates and comparison to values calculated from information supplied by the utility. The data will then be given to the Accident Assessment Officer for use in formulating PAD recommendations. This will be exercised in the 1985 exercise.</p>	<p>5/1/85</p>		

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<p><u>Recommendation:</u> Iodine measurements should be reported so that thyroid dose projections can be made.</p>				
<p>8. <u>Description:</u> The decision for reentry was not based on evaluation of field sample results (NUREG-0654, II, M.1). <u>Recommendation:</u> Protective action recommendations of reentry should be based on field data which supports that decision.</p>	<p>Protective Action Recommendations regarding reentry will be formulated as a result of field data analyses, which support the decision to re-enter. This will be exercised in the 1985 exercise.</p>	5/1/85		
<p><u>Pope County</u></p>				
<p><u>Medical Support - Pope County Ambulance Service</u></p>				
<p>9. <u>Description:</u> The ambulance was not monitored for decontamination measures used after removal of the patient (NUREG-0654, II, K.5.b). <u>Recommendation:</u> Monitoring and decontamination procedures for vehicles should be included as necessary requirements.</p>	<p>Members of the Pope County Ambulance Service are fully trained in monitoring and decontamination procedures. Training is provided by Arkansas Nuclear Planning and Response and Arkansas Nuclear One.</p>	5/1/85	<p>FEMA disagrees and believes the ambulance company should show decontamination procedures at future exercise. This item will be observed again at next exercise.</p>	
	<p>In this case a utility Health Physicist accompanied the Ambulance crew whose job is to inform the crew on contamination matters. It is evident in this case there was no need to monitor the vehicles for contamination since the ambulance was not contaminated. However, should there be a need for monitoring the subsequent decontamination the ambulance crew was fully qualified to accomplish this task.</p>			

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<u>Johnson County Emergency Operations Center</u>				
<p>10. <u>Description:</u> Staff mobilization and call up were not demonstrated. All staff used were on hand prior to beginning of exercise. No simulation of call up was made after receiving notice by AP&amp;L of an alert (NUREG-0654, II, E.2).</p> <p><u>Recommendation:</u> Demonstrate capability to call up staff for mobilization and activation of EOC at proper time in a real emergency.</p>	<p>Local government disagrees with the Federal observer that this was not done, however, will demonstrate again in the 1985 exercise.</p>	5/1/85		
<p>11. <u>Description:</u> The Reception Center and Knoxville Schools were not contacted (or simulated) by the Johnson County EOC at the Alert stage as called for in the plan. Coordination of school evacuation between ADH, TOCC, and Johnson County was not demonstrated</p>	<p>Local Director advises Reception Center managers were at his EOC and he advised them verbally to activate the Center.</p>	3/21/84	<p>FEMA will accept the fact the Care Center managers were at EOC and received notification to activate center, however, if this is the way it will be done in future we suggest you update your plans to state this.</p>	3/21/84

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<p>or simulated. After notification by TOCC that sectors 14 and 15 were being evacuated, the County did simulate sending four buses from Lamar to transport students. (NUREG-0654, II, H.4).</p> <p><u>Recommendation:</u> Follow procedures established in plan for placing school on standby and for contacting Care Center at Alert stage.</p>				
<u>Johnson County Hospital</u>				
<p>12. <u>Description:</u> Johnson County Hospital which had an objective for this exercise to test capability to receive and process contaminated persons, did not participate in the exercise (NUREG-0654, II, L.1).</p> <p><u>Recommendation:</u> Involve the Johnson County Hospital in a full participation role with scenario activities to test their capabilities.</p>	<p>A decision will be made as to what level of participation Johnson County Hospital will be used. If decide to continue to use them they will participate in next exercise.</p>	5/1/85		



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<u>Logan County Emergency Operations Center</u>				
<p>13. <u>Description:</u> Mobilization of the Logan County EOC was not demonstrated or simulated. Only two individuals manned the EOC. No call up of staff was demonstrated or simulated (NUREG-0654, II, E.2). <u>Recommendation:</u> Future exercise should require the full activation (by demonstration or simulation) of the Logan County EOC.</p>	<p>Logan County Director disagrees, stated he had notified on standby the fire department, care center managers and three sheriff deputies. Also, said the scenario only called for limited participation. Will do again in next exercise.</p>	5/1/85		
<p>14. <u>Description:</u> Maps were not available showing evacuation routes, relocation centers, shelter areas, population distribution or preselected radiological sampling and monitoring points (NUREG-0654, II, J.10.a,b). <u>Recommendation:</u> Appropriate maps should be prepared and either placed on walls or made available on tables at the EOC.</p>	<p>Logan County Director and State officials advised all of the maps were in plain site hanging on the walls. Doesn't understand how observer missed them.</p>	3/21/84	<p>FEMA will observe again in future exercises.</p>	3/21/84

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<p>15. <u>Description:</u> It was an objective to test the Yell County's Hospital capability to receive and process contaminated persons. This was not demonstrated (NUREG-0654, II, L.1).</p> <p><u>Recommendation:</u> Provide for participation of the hospital in a full exercise of their response capabilities.</p>	<p>Due to problems that surfaced after this objective was formulated and sent forward, the hospital was unable to participate in the REX-84.</p> <p>The Danville Hospital will be exercised in the 1985 exercise. Completion date for this item is May 1, 1985.</p>	5/1/85		



## NUCLEAR PLANNING & RESPONSE PROGRAM

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TABLE 2, ITEM 4

ATTACHMENT # 1

According to the REX-'84 scenario, the utility was to have declared a general emergency at 10:10 a.m. However, this did not occur. The actual declaration was made at 11:30 a.m. - 1 hour and 20 minutes late.

Arrangements had been made ahead of time to allow for evacuation of the London School on the following basis. Principal, Tom Doan was informed by scenario committee members that a general emergency would occur at 10:10. This would result in an ENS message being sent to him no later than 10:30 requesting the evacuation of his school to Hector. He was told he should arrive no later than 11:15 to allow for monitoring and registration of the children. This would allow them to meet the normal lunch schedule at the Hector school. The prearranged timetable could not be deviated from and still have the children returned to London in time to be taken home on their normal bus route.

Due to the 80 minute slip in the scenario, the London Principal phoned the TOCC and asked why he had not received the ENS message to evacuate. Since the students from the London school were essential to the successful exercising of the Hector Care Center - a major REX-'84 objective - the decision was made to move the students at this time regardless of the status of the scenario. In addition, in order to preserve the integrity of the scenario for local government, and to allow Pope County to carry out their part in the scenario, the decision was made not to violate plans and procedures by informing Pope County of the premature departure of students at Hector. By keeping with this decision, the Arkansas Department of Health carried on as if the students had not been moved. In the proper sequence, notification of London School and Pope County occurred as shown in the attached radio logs. A protective Action Directive was made to evacuate the area including the London School, the Arkansas Department of Health notified Pope County of this PAD as evidenced in the attached logs. The statement that Pope County was not notified is false, according to the radio log, at 12:25 hours the Pope County EOC notified the TOCC that evacuation of the 2-mile radius around Arkansas Nuclear had been completed.

We refer to the suggestion in Table 2, item 4, that the local plans be ammended so that the Arkansas Department of Health and not local schools of EAL and PAD information. We refer to page B-2 of the Pope County Radiological Emergency Plan. This communication flow chart details the redundant system used to notify schools directly through the Early Notification System and for local government to verify this notification by use of commercial telephone. This item is CLOSED as of 3-21-84.