



# Federal Emergency Management Agency

Washington, D.C. 20472

APR 10 1985

50-334  
50-412

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

SUBJECT: Status of the Beaver Valley Power Station Category A  
Deficiencies

On June 27, 1984, a full-participation offsite radiological emergency preparedness exercise was conducted at the Beaver Valley Power Station which resulted in a Category A deficiency for the Pennsylvania Emergency Management Agency. This deficiency was the result of a failure to activate the alert and notification system within the timeframe as outlined in NUREG-0654/FEMA-REP-1, Rev.1, and FEMA-43.

Since the exercise, the Beaver County government has undergone a reorganization which places the Beaver County Communications Center under the direct control of the Beaver County Office of Emergency Services. With this consolidation, the Emergency Management Coordinator now has the capability to simultaneously notify all 27 municipalities in Beaver County within the 10-mile emergency planning zone. On February 25, 1985, a remedial exercise was conducted to demonstrate the improved capability of the Beaver County Office of Emergency Services to notify the 27 municipalities in Beaver County. The alert and notification process was completed within the required 15-minutes during the remedial exercise. Attached are the FEMA Region III report on the February 25, 1985 remedial exercise and the corrective action schedule for the Category B deficiencies. Based on the demonstrated capabilities, the Category A deficiency has been adequately corrected.

Similarly, the remedial exercise conducted on December 13, 1984, corrected the Category A deficiency that had been cited for Hancock County, West Virginia. The results of the December 13, 1984, remedial exercise were forwarded to you on February 6, 1985.

Both Category A deficiencies cited during the June 27, 1984, Beaver Valley exercise have now been adequately corrected as demonstrated by the two remedial exercises.

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Therefore, offsite radiological emergency preparedness is now adequate to provide reasonable assurance that the public health and safety can be protected in the event of an accident at the site.

If you have any questions, please contact Mr. Robert S. Wilkerson, Chief, Technological Hazards Division, at 646-2860.

Attachments  
As Stated

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# Federal Emergency Management Agency

Region III 105 South 7th Street Philadelphia, Pennsylvania 19106

MAR 1 1985

MEMORANDUM FOR: Samuel W. Speck, Associate Director  
State and Local Programs & Support

ATTENTION: Robert S. Wilkerson, Chief  
Technological Hazards Division

FROM: *Paul P. Giordano*  
Paul P. Giordano  
Regional Director

SUBJECT: Category "A" Deficiency, Beaver Valley  
Exercise, June 27, 1984

On June 27, 1984, a full-participation exercise was held for the Beaver Valley Power Station. As a result of that exercise the Pennsylvania Emergency Management Agency received a Category "A" deficiency. The deficiency was given because the alert and notification system was not activated within the 15-minute timeframe called for in NUREG-0654/FEMA-REP-1 and FEMA-43.

Since the exercise was held, the Beaver County government has undergone a reorganization which places the Beaver County Communications Center under the direct control of the Beaver County Office of Emergency Services; the Director of this agency is the Emergency Management Coordinator for Beaver County. With this consolidation, the Emergency Management Coordinator now has the capability to simultaneously notify the 27 municipalities in Beaver County within the 10-mile emergency planning zone of the Beaver Valley Power Station.

In addition, on February 25, 1985, the Pennsylvania Emergency Management Agency, Beaver County, Pennsylvania; the West Virginia Office of Emergency Services, Hancock County, West Virginia; the Ohio Office of Emergency Services and Columbiana County, Ohio, participated in a supplemental exercise to demonstrate the capability to notify all parties of the decision to activate the alert and notification system within the 15-minute timeframe requirements of NUREG-0654/FEMA-REP-1 and FEMA-43.

The supplemental exercise, which was observed by the RAC Chairman and the Project Officer for Beaver Valley, began at the General Emergency stage which was declared at 1730. The Pennsylvania Emergency Management Agency advised the Beaver County Emergency Management Coordinator of the General Emergency and provided an update of plant conditions. All municipalities and separate entities were notified of the change in status.

The Bureau of Radiation Protection advised PEMA, at 1800, that pressure in the reactor was increasing, the reactor water pressure was decreasing, all attempts to depressurize the reactor vessel and increase water level have been unsuccessful, and that there was a possibility of fuel damage. Based on the above stated plant conditions, BRP recommended that an evacuation of the EPZ be initiated.

PEMA contacted the Governor at 1806 and presented the plant conditions and the Bureau of Radiation Protection's recommendation to evacuate to him. At 1815 the Governor directed an evacuation of the 10-mile Pennsylvania Emergency Planning Zone, preceded by activation of the alert and notification system at 1830. At 1816 the Pennsylvania Emergency Management Agency relayed the Governor's decision to Beaver County and advised West Virginia and Ohio of the Governor's decision to activate the alert and notification system at 1830, over the dedicated telephone. West Virginia and Ohio concurred with this decision and Beaver County acknowledged receipt of the message. A hard copy of the decision was then sent to all parties via the teletype system. Beaver County notified all municipalities via RACES and REACT radio systems at 1817, that the siren system would be activated at 1830, with EBS announcements to follow immediately. Route alerting would also be accomplished as necessary.

All 27 municipalities verified receipt of the message by 1827.

Based on the result of the supplemental exercise held on February 25, I feel that the Category "A" deficiency given to the Pennsylvania Emergency Management Agency has been adequately addressed.

During the supplemental exercise held on December 13, 1984, Hancock County, West Virginia, demonstrated the capabilities to perform the functions necessary to protect the public in the event of an incident at the Beaver Valley Power Station. The results of the Hancock County supplemental exercise were forwarded to you on December 28, 1984.

Therefore, both Category "A" deficiencies received as a result of the full-scale exercise held on June 27, 1984, have been adequately addressed by performances demonstrated in supplemental exercises.

If we can be of further assistance, please contact James R. Asher of my staff at (215) 597-8664.

cc: John L. Patten, Director  
Pennsylvania Emergency Management Agency

### SUMMARY OF DEFICIENCIES

CATEGORY B. The following deficiencies, while not indicative of preparedness insufficient to provide the assurance specified in Category A, above, require corrective action. Also included are recommendations where performance was adequate, but correctable weaknesses were noted.

DEFICIENCY/RECOMMENDATION	REFERENCE NUREG-0654 PART II	CORRECTIVE ACTION	PROJ'D DATE	ACT'L DATE
<u>PENNSYLVANIA STATE EOC</u>		<u>PENNSYLVANIA STATE EOC</u>		
1. One response team representative took 90 minutes to respond to the call to activate the EOC.	H.4	1. Department of Military Affairs did not sign in until 1000 hours, although the alert was declared at 0825 hours. On the surface this appears to be excessive, but these people are located at Indiantown Gap. At a minimum, it takes about one hour for the team to get on site.	10/17/84	
2. In accordance with State and local plans, the licensee's protective action recommendation should have been discussed with the States alone, not in conference with the Counties as well. Protocol should be established for use of the dedicated hotline by the licensee in conference with the States, and by the State in conference with each other and the local jurisdictions.	A.1.a	2. This deficiency was the subject of a meeting August 9, 1984 with the following participants: Nuclear Regulatory Commission, Federal Emergency Management Agency, States of Pennsylvania and Ohio, Counties of Beaver (Penna.), Columbiana (Ohio), Hancock (W. Virginia), Duquesne Light and Power (licensee) and Bell Telephone. Many options were discussed; however, feasibility studies and costs have not been received at this time. A special circuit has been considered and will make it possible to separate any discussion between the state, BRP, and the facility from the counties concerned.	1986 Date to be determined.	
3. Exercise play was terminated by PEMA too early for the County and local participants to have time to fully play out protective actions.	N.2.d	3. The exercise play was terminated with a caution to all participants that each activity to be monitored by federal observers should continue until reviewed. The county was also informed that if any county objectives had not been attained, the county could continue. Mass Care and Traffic Control were played out of sequence, thereby reducing exercise time following protective action execution.	10/17/84	



### SUMMARY OF DEFICIENCIES

CATEGORY B. The following deficiencies, while not indicative of preparedness insufficient to provide the assurance specified in Category A, above, require corrective action. Also included are recommendations where performance was adequate, but correctable weaknesses were noted.

DEFICIENCY/RECOMMENDATION	REFERENCE NUREG-0654 PART II	CORRECTIVE ACTION	PROJ'D DATE	ACT'L DATE
<u>MEDIA CENTER</u>		<u>MEDIA CENTER</u>		
4. Status board located in the presentation center was not kept up-to-date.	J.9	4. The reference has to do with state and local protective measures but it presents no requirement for a media center to have a status board. The purpose of a media center is to provide a site for the news media to assemble and receive periodic briefings concerning the status of the facility or any other newsworthy information associated with an incident (natural or man-made). If a media center has a status board it will be recommended that it be posted in a timely manner for all future drills or actual incidents.		
<u>AIR MONITORING TEAM</u>		<u>AIR MONITORING TEAM</u>		
5. The team was not adequately briefed on plant or meteorological conditions.	I.7	5. Air monitoring team will be briefed on the same information provided to PEMA during each half hour update. Sensitive information concerning plant conditions will not be transmitted via radio.	10/17/84	
6. The team was asked to evacuate from the 10-mile EPZ, rather than relocate out of the plume.	I.7	6. Team will be relocated out of the plume during future exercises. This is standard procedure. It was not standard procedure for the team to evacuate from the EPZ.		
<u>WATER MONITORING TEAM</u>		<u>WATER MONITORING TEAM</u>		
7. Although the water monitoring team was on standby at the Beaver County EOC with all equipment necessary, they were not mobilized during the exercise.	I.7	7. Water Monitoring Team was instructed to report to the Beaver County EOC with equipment. During an actual incident that's where the team would be, on stand-by. This team was exercised last year, therefore, it was not deemed necessary to exercise them beyond the point of mobilization with equipment.		

### SUMMARY OF DEFICIENCIES

CATEGORY B. The following deficiencies, while not indicative of preparedness insufficient to provide the assurance specified in Category A, above, require corrective action. Also included are recommendations where performance was adequate, but correctable weaknesses were noted.

DEFICIENCY/RECOMMENDATION	REFERENCE NUREG-0654 PART II	CORRECTIVE ACTION	PROJ'D DATE	ACT'L DATE
<u>DECONTAMINATION</u>		<u>DECONTAMINATION</u>		
8. It appeared that the decontamination station at Baden had been activated well before the general emergency. In the future activation closer to the general emergency would be more appropriate.	K.5.b	8. Early activation of activities during an exercise is characteristic of volunteers who are proficient in their duties and are anxious to do a good job. In the future a conscientious effort will be made to activate the decontamination station closer to the declaration of a general emergency.	1986 Date to be determined.	
9. Assuring that vehicles are dispatched to all decontamination stations would improve future exercises.	K.5.b	9. Detailed planning in the future should correct this deficiency.	May 1985	
<u>BEAVER COUNTY</u>		<u>BEAVER COUNTY</u>		
10. The County should examine both its internal and external communications procedures with the goal of preventing a recurrence of the failure to receive and transmit the protective action decisions. Messages should be completely written out and read back to the sender for purposes of verification. The County should also attempt to determine why some municipalities experienced delays in communications from the County, and correct the factors causing those delays.	E.2	10. Communications procedures are being modified to include escalation/de-escalation, protective action recommendations and verification. Delays experienced in the notification process will be investigated and appropriate modifications incorporated prior to the next exercise.	1986 Date to be determined.	
11. While no protective action decisions (evacuation, use of KI) were received or were misunderstood by the County from PEMA, there was sufficient information available to the County to warrant a more aggressive pursuit of the matter with PEMA. Such a non-passive stance on the County's part would foster a more fail-safe communications system.	E.2	11. The decision to implement protective action in the future will rest with the Board of Commissioners based on the advice of PEMA and local conditions. In the absence of advice from PEMA, the county will aggressively pursue the issue or take whatever initiative is necessary to protect the health and safety of all county residence.	1986 Date to be determined.	

### SUMMARY OF DEFICIENCIES

CATEGORY B. The following deficiencies, while not indicative of preparedness insufficient to provide the assurance specified in Category A, above, require corrective action. Also included are recommendations where performance was adequate, but correctable weaknesses were noted.

DEFICIENCY/RECOMMENDATION	REFERENCE NUREG-0654 PART II	CORRECTIVE ACTION	PROJ'D DATE	ACT'L DATE
12. The County should determine for itself exactly what functions chalkboard message log and its status board are supposed to fulfill and use them accordingly.	J.9	12. Personnel will be trained concerning the log and status board function. An operations officer will be recruited and trained to identify significant messages, events and correct courses of action to implement county and state policy.	May 1985	
13. The County and municipal plans state that the primary means of communications is by telephone with RACES as backup. As noted in many of the municipal reports the County used RACES as the primary communications link for this exercise. If this is to be standard procedure then County and municipal plans should be revised to reflect this.	F.1	13. RACES will be used as the primary means of communications, with telephone as secondary. County and municipal plans will be changed accordingly.	May 1985	
14. The EBS system did not operate in accordance with the Pittsburgh Extended Operational Area EBS Plan.	E.5	14. The county plan will be changed to include the EBS procedures as reflected in the FCC approved Pittsburgh Extended PA EBS Operational Area Plan.	May 1985	
<u>ALIQUIPPA BOROUGH</u>		<u>ALIQUIPPA BOROUGH</u>		
15. The Aliquippa Borough EOC should receive training for selected personnel so that such personnel can demonstrate in a drill that: 1) contaminated personnel in the vicinity of the EOC can be properly directed to decontamination and/or treatment facilities; and 2) the decision making process and PAGs for the exposure of emergency workers to hazardous radiation can be adequately explained and implemented.	O.4	15. The county has an ongoing training program which can be made available to Aliquippa Borough to eliminate this deficiency.	May 1985	
<u>BEAVER BOROUGH</u>		<u>BEAVER BOROUGH</u>		
16. Since utilization of the correct evacuation routes is critical for a successful evacuation, the Borough should obtain revised information on evacuation routes as soon as possible.	J.10.a	16. Information concerning evacuation routes and the best course of action to collect and disseminate this data will be investigated and therefore incorporated at the earliest possible date.	May 1985	



### III. SUMMARY OF DEFICIENCIES

Category B. The following deficiencies, while not indicative of preparedness insufficient to provide the assurance specified in Category A, above, require corrective action. Also included are recommendations where performance was adequate, but correctable weaknesses were noted.

DEFICIENCY/RECOMMENDATION	REFERENCE NUREG-0654 PART II	CORRECTIVE ACTION	PROJ'D DATE	ACT DATE
<u>BRIDGEWATER BOROUGH</u>		<u>BRIDGEWATER BOROUGH</u>		
17. The Borough should clarify, with Beaver County, the role they should play, if any, in public information and rumor control.	G.3.a G.4.c	17. Municipalities have responsibility for establishing rumor control. County will provide public information releases except for those requiring specific information about a municipal government. These points will be stressed during future meetings with Bridgewater Emergency Management personnel.	May 1985	
18. Additional personnel should be trained and a roster established as part of the plan to cover 24 hour manning capabilities.	A.4	18. The significance and importance of identifying a second shift will be expressed with borough personnel.	May 1985	
<u>BRIGHTON TOWNSHIP</u>		<u>BRIGHTON TOWNSHIP</u>		
19. The County should give their municipalities periodic status reports concerning the emergency response in order to insure that missed messages are at least received in a somewhat timely manner. If periodic updates are not received by the municipality, they should not hesitate to contact the County for information.	E.1	19. Periodic status reports concerning response to emergencies will be provided to all risk municipalities. County staff will be trained to provide this information and municipalities will be encouraged to be persistent in requesting this update information if the county is overly delayed in providing it.	1986 Date to be determined.	
<u>CENTER TOWNSHIP</u>		<u>CENTER TOWNSHIP</u>		
20. Another phone should be installed in the EOC to eliminate some timing problems with incoming and outgoing calls.	F.1.a	20. As suggested telephone will be utilized as a secondary means of communications with RACES as primary. Recommendations for an additional telephone will be made to appropriate officials.	May 1985	

### SUMMARY OF DEFICIENCIES

CATEGORY B. The following deficiencies, while not indicative of preparedness insufficient to provide the assurance specified in Category A, above, require corrective action. Also included are recommendations where performance was adequate, but correctable weaknesses were noted.

DEFICIENCY/RECOMMENDATION	REFERENCE NUREG-0654 PART II	CORRECTIVE ACTION	PROJ'D DATE	ACT'L DATE
<u>FALLSTON TOWNSHIP</u>		<u>FALLSTON TOWNSHIP</u>		
21. Because of the lack of participation by the Borough, the Region cannot state definitively that the public health and safety would be maintained in the event of an actual emergency at Beaver Valley. In future exercises the Borough should try to staff the EOC and actually complete as many tasks as possible rather than simulate.	N.1.b	21. In future exercises the borough will attempt to staff the EOC, completing as many tasks as possible.	1986 Date to be determined.	
<u>HANOVER TOWNSHIP</u>		<u>HANOVER TOWNSHIP</u>		
22. Additional phone lines are needed in the EOC. At the present time there is only one telephone.	F.1.a	22. Additional telephone lines will be discussed with appropriate public and private sector officials.	May 1985	
23. The Beaver County plan lists the Hanover fire station as a decontamination station for emergency workers. The municipality verified this with the Federal observer.	K.5.b	23. The county is considering other possible sites to be used for monitoring and decontamination of emergency workers.	1986 Date to be determined.	
24. One sector of the Township was route alerted. This sector required 54 minutes to cover. The routes in the Township should be reevaluated so that alerting can be accomplished within the 45 minute timeframe as stated in NUREG-0654. In addition, more emergency workers should be recruited and trained to man route alert teams.	E.6	24. Route alerting will be reviewed with the goal of completing all route alerting within 45 minute timeframe.	May 1985	

# SUMMARY OF DEFICIENCIES

CATEGORY B. The following deficiencies, while not indicative of preparedness insufficient to provide the assurance specified in Category A, above, require corrective action. Also included are recommendations where performance was adequate, but correctable weaknesses were noted.

DEFICIENCY/RECOMMENDATION	REFERENCE NUREG-0654 PART II	CORRECTIVE ACTION	PROJ'D DATE	ACT'L DATE
<u>HOOKSTOWN, GEORGETOWN, GREENE</u>		<u>HOOKSTOWN, GEORGETOWN, GREENE</u>		
25. If the three municipalities continue to operate as one, a new plan will have to be written naming one person in charge and responsibilities assigned to specific individuals and agencies. This should assist with the resolution of the following: a. management by committee; b. call down lists not utilized to notify staff members; c. incomplete staffing; d. verification of messages not done; e. no participation by public officials; f. plans not up-to-date; g. no 24-hour capability; h. improper use of status boards; i. no delegation of authority; j. EMC for Greene Township not notified.	A	25. All comments will be tactfully passed to appropriate individuals. The utilization of a joint EOC is a relatively new concept that can be gainfully employed if staffs are trained and developed as a team. This team training concept will be emphasized during future training sessions.	May 1985	
26. Additional training is required in emergency management, radiological exposure control, practice drills, table-top communications drills. This will assist in clearing up the following areas: a. lack of knowledge in dosimetry, KI use; b. lack of determination of exercise status; c. status boards ineffective; d. reactions out of sequence (route alerting); e. communications and message management poorly done.	O	26. All comments will be tactfully passed to appropriate individuals. The utilization of a joint EOC is a relatively new concept which can be gainfully employed if staffs are trained and developed as a team. This team training concept will be emphasized during future training sessions.	May 1985	

# SUMMARY OF DEFICIENCIES

CATEGORY B. The following deficiencies, while not indicative of preparedness insufficient to provide the assurance specified in Category A, above, require corrective action. Also included are recommendations where performance was adequate, but correctable weaknesses were noted.

DEFICIENCY/RECOMMENDATION	REFERENCE NUREG-0654 PART II	CORRECTIVE ACTION	PROJ'D DATE	ACT'L DATE
<u>INDEPENDENCE TOWNSHIP</u>		<u>INDEPENDENCE TOWNSHIP</u>		
27. The EMC was not aware of the requirements, nor did he know how to verify the initiating call from the Beaver County EOC. He should have a phone number at home for this purpose.	E.1	27. The township coordinator is new and will become more proficient through training and experience.	May 1985	
28. A test of public alerting by two teams with fire trucks takes two hours. Routes should be evaluated and redesigned so that each one takes no longer than 45 minutes.	E.6	28. Route alerting will be reevaluated and possibly redesigned so that each route takes no longer than 45 minutes.	May 1985	
<u>INDUSTRY BOROUGH</u>		<u>INDUSTRY BOROUGH</u>		
29. Status boards were hard to read and not visible to all staff members.	J.9	29. All deficiencies will be corrected through training and thru experience received as a result of this exercise.	May 1985	
30. The RACES operator was set up too close to the telephones. The noise level in the EOC made coordination and discussion very difficult.	H.3	34.		
31. RACES transmissions caused interference on the regular police lines. An antenna mounted on the roof of the EOC will stop interference in the police net.	F.1.d			
32. Additional training in radiological exposure control is needed.	O.4.g			
33. The addresses of people needing assistance are not complete. They have mailing addresses, not where they are actually located.	J.10.d			
34. The Borough should recruit and train additional emergency workers to provide 24-hour manning capabilities.	A.4			

### SUMMARY OF DEFICIENCIES

CATEGORY B. The following deficiencies, while not indicative of preparedness insufficient to provide the assurance specified in Category A, above, require corrective action. Also included are recommendations where performance was adequate, but correctable weaknesses were noted.

DEFICIENCY/RECOMMENDATION	REFERENCE NUREG-0654 PART II	CORRECTIVE ACTION	PROJ'D DATE	ACT'L DATE
<u>MIDLAND, GLASGOW, OHIOVILLE</u>		<u>MIDLAND, GLASGOW, OHIOVILLE</u>		
35. Although it is understood that Glasgow Borough has attempted to ensure 24-hour emergency response capability, continued efforts should be made to resolve this problem.	A.4	35. The utilization of joint EOC is a relatively new concept thru that will improve with each exercise. Training and	May 1985	
36. Plans should be revised, if the communities feel it is warranted, establishing the unified EOC response concept and recognizing one individual as the lead coordinator for the three boroughs. In addition, a combined log should be maintained.	A.2.a E.1 P.4	40. exercises will identify problem areas not previously considered. Corrective action will be initiated for each deficiency identified during this exercise and subsequent training workshops. Plans will be changed to reflect the joint EOC concept. The notification sequence identified by deficiency #37 will be utilized by the county and so identified in the county plan.		
37. The County should establish a notification sequence whereby these communities are contacted early on, due to their proximity to the plant.	E.1			
38. RACES communication should be established for these communities in future exercises.	F.1.a			
39. Because of the length of time necessary to complete the one route in Ohioville/Glasgow, consideration should be given to adding another route alerting sector.	E.6			
40. Ohioville should reexamine their plan to update themselves on the purpose of route alerting and, more importantly, the timing as to when the teams should be sent out.	E.6			



### SUMMARY OF DEFICIENCIES

CATEGORY B. The following deficiencies, while not indicative of preparedness insufficient to provide the assurance specified in Category A, above, require corrective action. Also included are recommendations where performance was adequate, but correctable weaknesses were noted.

DEFICIENCY/RECOMMENDATION	REFERENCE NUREG-0654 PART II	CORRECTIVE ACTION	PROJ'D DATE	ACT'L DATE
<u>MONACA BOROUGH</u>		<u>MONACA BOROUGH</u>		
41. Additional training on dosimetry would enhance the performance of the EOC. Emergency workers from the fire department appeared adequately trained by the radiological officer but there was some confusion by other team members within the EOC.	O.4.g	41. Additional dosimetry training will be conducted for the county and municipal emergency response personnel.	May 1985	
<u>PATTERSON TOWNSHIP</u>		<u>PATTERSON TOWNSHIP</u>		
42. Because the planned multiple municipal participation in one EOC by Patterson Township and Patterson Heights Borough was not implemented, an evaluation of its feasibility was not performed. In addition, an evaluation of the physical separated Patterson Heights Borough EOC was not able to be performed. These should be evaluated as part of the next exercise.	N.4	42. A mutual understanding will be established between Patterson Heights Borough and Patterson Township covering the use of a joint EOC. Full participation by both municipalities is expected.	May 1985	
43. Since some staff members of the EOC were out of town, round-the-clock staffing was not able to be demonstrated.	A.4	43. Depth in response team positions will be emphasized during county training workshops.	May 1985	
44. Additional coordination with the Beaver County EOC should be pursued to improve timeliness of messages from the County.	E.1	44. Additional coordination with the county EOC to improve timeliness of messages will be directed toward greater utilization of existing RACES.	May 1985	
45. Not all appropriate maps were available or posted at the EOC.	J.10.a	45. County will insure that appropriate maps are available to all municipalities. Recommendation for posting of maps will be presented during training sessions.	May 1985	
46. Additional coordination with Beaver County should be performed by the Patterson Township EMC to ensure that a firm understanding is established as to when route alerting is to take place.	E.6	46. County plans make it quite clear as to when route alerting will be initiated. This issue will be discussed and clarified during training sessions.	May 1985	

SUMMARY OF DEFICIENCIES

CATEGORY B. The following deficiencies, while not indicative of preparedness insufficient to provide the assurance specified in Category A, above, require corrective action. Also included are recommendations where performance was adequate, but correctable weaknesses were noted.

DEFICIENCY/RECOMMENDATION	REFERENCE NUREG-0654 PART II	CORRECTIVE ACTION	PROJ'D DATE	ACT'L DATE
<u>POTTER TOWNSHIP</u>		<u>POTTER TOWNSHIP</u>		
47. Emergency procedures are needed to adequately address the securing and use of film badges, TLDs and KI.	J.10.e K.3.a	47. Dosimetry training will be conducted by county. This training will cover the delivery, control and recovery of dosimetry.	May 1985	
<u>RACCOON TOWNSHIP</u>		<u>RACCOON TOWNSHIP</u>		
48. Maps showing population estimates for evacuation routes and relocation centers were not available in the EOC.	J.10.a	48. The county will identify maps needed by each municipality, establish costs then attempt to obtain funding.	May 1985	
<u>SHIPPINGPORT BOROUGH</u>		<u>SHIPPINGPORT BOROUGH</u>		
49. A minimum of four phones needs to be installed in this EOC to ensure effective coordination of response actions.	F.1.a	49. This recommendation will be relayed to local elected officials for action deemed necessary.	Oct. 1985	
<u>SOUTH BEAVER TOWNSHIP</u>		<u>SOUTH BEAVER TOWNSHIP</u>		
50. The fragmentation of the emergency operations between the fire station and police building must be resolved. The fire station appears to be capable of providing adequate space for the EOC staff, RACES operator and the Pennsylvania Department of Agriculture dosimeter distribution point as well as supporting extended operations. The fire station could then become the Township Emergency Operations Center. All personnel could report to a single point. Support groups (police, fire, RACES, etc.) could coordinate on a continuous basis. And, perhaps most importantly, the EMC and elected officials would be better informed, able to observe the entire operation, and determine where personnel adjustments are needed and/or additional support requested.	H.3	50. Concur. This deficiency will be addressed during future training sessions.	May 1985	

### SUMMARY OF DEFICIENCIES

CATEGORY B. The following deficiencies, while not indicative of preparedness insufficient to provide the assurance specified in Category A, above, require corrective action. Also included are recommendations where performance was adequate, but correctable weaknesses were noted.

DEFICIENCY/RECOMMENDATION	REFERENCE NUREG-0654 PART II	CORRECTIVE ACTION	PROJ'D DATE	ACT'L DATE
51. Training sessions need to be conducted to familiarize the key staff members with the procedures and instructions set forth in the Township Plan.	0.1	51. Concur. This deficiency will be addressed during future training sessions.	May 1985	
52. Training sessions need to be conducted to familiarize the key fire department personnel with decontamination procedures.	0.4.g	52. Concur. This deficiency will be addressed during future training sessions.	May 1985	
53. Appendix 3, Attachment A and Appendix 5 need to be filled in on the plan to provide a complete, single point of reference during an emergency.	A.1.d	53. Appropriate changes will be made to provide a complete, single point of reference.	May 1985	
54. Road maps should be obtained and the routes to be taken clearly indicated for both alert teams.	J.10.a	54. County will insure that appropriate maps are available to all municipalities. Information to be posted on maps will be discussed during training sessions.	May 1985	
55. Standard Operating Procedures need to be established to ensure the prompt updating of the plan reflecting personnel changes.	P.4	55. Keeping personnel changes posted is an essential aspect of readiness. This issue will be emphasized during scheduled training sessions.	May 1985	
56. Periodic briefings should be held by the EMC to update the staff; i.e. following a receipt of a message.	J.9	56. Periodic briefings shall be conducted following the receipt of messages of significance - this subject will be emphasized during training.	May 1985	
57. Status board should be utilized and clearly visible to all. It needs to be kept up-to-date on significant events and have the emergency classification level posted at all times.	J.9	57. Concur. All municipalities will be encouraged to have a status board, post it with significant messages and have the emergency classification level posted at all times.	May 1985	
58. The plume EPZ maps and evacuation route maps should be posted and utilized.	J.10.a	58. Concur. All municipalities will be encouraged to have a status board, post it with significant messages and have the emergency classification level posted at all times.	May 1985	

### SUMMARY OF DEFICIENCIES

CATEGORY B. The following deficiencies, while not indicative of preparedness insufficient to provide the assurance specified in Category A, above, require corrective action. Also included are recommendations where performance was adequate, but correctable weaknesses were noted.

DEFICIENCY/RECOMMENDATION	REFERENCE NUREG-0654 PART II	CORRECTIVE ACTION	PROJ'D DATE	ACT' DATE
<u>SOUTH HEIGHTS BOROUGH</u>		<u>SOUTH HEIGHTS BOROUGH</u>		
59. Additional phone lines are needed in this EOC.	F.1.a	59. Local officials will be notified of the recommendation.	Oct. 1985	
60. Additional training is needed in the area of decontamination procedures and the use of KI.	O.4.g	60. Decontamination procedures and the use of KI will be discussed during planned training sessions with all risk municipalities.	May 1985	
61. The EOC did not confirm with Beaver County that the TCPs were manned by the State Police.	J.10.j	61. Ref. NUREG-0654 J.10.j states that "Control of access to evacuated areas and organization responsibilities for such control" is applicable to local and state government. The Pennsylvania State Police man the access control points and selected traffic control points. Information concerning the manning of the ACP's and TCP's is made available through state police channels. A state policeman is located in each risk county EOC to insure that coordination, assistance and information is available in a timely manner. There is no known requirement for a borough to notify county that a TCP is being manned by the PSP. Therefore, it is recommended that this deficiency, as written, be deleted.		
<u>VANPORT TOWNSHIP</u>		<u>VANPORT TOWNSHIP</u>		
62. There is no one adequately trained to relieve the Emergency Management Coordinator.	A.1.e	62. The county will attempt to resolve this item by identifying a replacement and training that person regarding the duties of an emergency management coordinator.	May 1985	
63. The Emergency Management Coordinator, in a deviation from the principal plan, initiated route alerting and manning of ACPs/TCPs at Site Area Emergency. When Beaver County told him to call back the teams and perform route alerting in conjunction with the siren sounding, he realized his mistake and made plans to simulate route alerting at the proper time.	J.10.c	63. Concur. This item of route alerting and when to conduct route alerting will be covered during planned county training sessions.	May 1985	

### SUMMARY OF DEFICIENCIES

CATEGORY B. The following deficiencies, while not indicative of preparedness insufficient to provide the assurance specified in Category A, above, require corrective action. Also included are recommendations where performance was adequate, but correctable weaknesses were noted.

DEFICIENCY/RECOMMENDATION	REFERENCE NUREG-0654 PART II	CORRECTIVE ACTION	PROJ'D DATE	ACT'L DATE
64. Additional training is required in the area of radiological exposure control.	O.4.g	64. Training sessions will be conducted by county regarding radiological exposure control.	May 1985	
<u>SUPPORT COUNTIES</u>		<u>SUPPORT COUNTIES</u>		
65. If the Red Cross plans a District Headquarters to support their operation, this activity should be included as an action point in the scenario and the activity should be observed.	A.1.a	65. Participating Red Cross chapters will be identified in future exercise scenarios.	10/17/84	
66. Local school boards should be encouraged to select pre-designated student pickup points for the schools that may be evacuated.	J.10.c	66. Pennsylvania Department of Education representative is making a concerted effort with local school districts to identify student pickup points for schools that may require evacuation.	May 1985	
67. Allegheny County should develop a plan for vehicle decontamination (this was also a deficiency last year).	K.5.b	67. Allegheny County will incorporate procedures in their plan for vehicle decontamination.	May 1985	



COMMENTS ON AND SCHEDULE OF CORRECTIONS  
FOR WEST VIRGINIA DEFICIENCIES IN  
THE JUNE 27, 1984 B.V.P.S. EXERCISE

The following are the deficiencies/recommendations for the State of West Virginia and Hancock County from the June 27, 1984 exercise. Also listed are the corrective actions for the State and the County.

CATEGORY A. The following deficiency indicates that offsite emergency preparedness was not adequate to provide reasonable assurance that appropriate measures can be taken to protect the health and safety of the public.

HANCOCK COUNTY

The County's capability for performing the detailed actions necessary to implement an evacuation have not been demonstrated. Future exercises should include realistic simulation of the full range of activities, including:

- instructing the public;
- notifying all special facilities, camps, parks, etc.;
- controlling air, water and rail traffic;
- determining available resources and acquiring unmet needs;
- evacuating schools;
- evacuating the transit-dependent population;
- evacuating the handicapped, mobility-impaired, and others with special needs;
- controlling access to the evacuated area;
- recovery and reentry.

Corrective Actions

This Category A deficiency will be corrected in a two step process.

Step 1

- A) A complete revision of the Transportation Services Standard Operating Procedures. The exercise pointed out several areas in the SOP that were unclear. By revising the procedure, the ill-defined areas in it will be cleared up leaving less of a chance of human error.
- B) Updating the public information annex to the County plan and updating the public information SOP.
- C) Reviewing all the EOC staff SOP's for clarity and updating as appropriate.

## Step 2

Conduct one-on-one EOC staff training where appropriate for the SOP changes.

### Projected Correction Dates

Step 1 - December 31, 1984

Step 2 - 1985 EOC staff training is now being scheduled.

The following is an item-by-item listing of the Category A deficiency and the corrective action for each one. However, it is felt that not all of the items listed were properly commented upon and that some are improperly listed under Category A; these are so noted.

### Corrective Actions/Comments

#### - instructing the public

There is a mechanism already in place to deal with public information. It is outlined in Annex K - Public Information Program - of the County plan and in a Public Information Standard Operating Procedure. However, both documents will be reviewed and updated to make sure the information is disseminated to the public. Additional training will be given to the County PIO to assure that the update is understood and followed. (Public instructions is also cited as Category B Deficiency #17; this answer should satisfy both deficiencies).

#### - notifying all special facilities, camps, parks, etc.

This activity needs to be broken down into two areas - special facilities and camps/parks.

special facilities - Fox Nursing Home is the only special facility in the ten-mile EPZ. HCOES did notify the nursing home and it was an active participant in the exercise, (FEMA Report Page 86-87, "B. Special Evacuation Problems").

camps/parks - There are two facilities that fall under this category - Tomlinson Run State Park, and Kennedy Park Marina.

HCOES tried on several occasions to notify Tomlinson Run Park. There is a procedure currently being developed with the park to clear up the communications problem. However, the New Manchester Fire Department has route alerting responsibility for the park, so the general public using the park would have been notified. Also, the park is involved in the transient Sticker Program which provides emergency information to the general public.

The Newell Fire Department has route alerting responsibility for the Kennedy Park Marina. The general public at the marina would have been notified by the fire department. The marina also participates in the transient Sticker Program.

NOTE: The Hancock County plan lists the County Childrens Home and the 4-H Camp as special populations. The County Childrens Home is now closed. The 4-H Camp is considered part of Tomlinson Run Park and is being addressed in the park's plan. The Hancock County plan will be corrected in the annual update.

- controlling air, water, and rail traffic

This is a responsibility that falls under the Transportation Services SOP. It is an area that will be corrected and cleared up by rewriting the SOP. When it comes to air, water and rail traffic, the SOP is very vague.

The Beaver Valley Power Station notifies the Corps of Engineers to close the New Cumberland Dam. This allows the Coast Guard, also contacted by Beaver Valley Power Station, to control water traffic.

There are no commercial airports in the Hancock County EPZ. There is a small private airport in the County's EPZ that is used by local people. The airport is not manned on a day-to-day basis; however, several contact persons for the airport have now been obtained.

There is only one rail line into the EPZ. The SOP will be changed to include a call to Conrail so traffic on this line can be controlled.

- determining available resources and acquiring unmet needs

This deficiency is not understood. The following are comments from the FEMA Report:

Page 85, "VII Protective Action; A. Evacuation and Access Control."

"The County requested 20 State Police troopers and the Highway Department to assist in providing the necessary resources."

"Following the evacuation decision, at about 1445, activation of a second mass care facility was simulated, in order to provide for an expected 4,000 evacuees."

Page 87, "B. Special Evacuation Problems (cont.)."

"After coordinating the evacuation decision with the nursing home director, two buses with wheelchair lifts and an ambulance were dispatched at 1145."

"The staff determined that 16 Hancock County and 10 Brooke County buses were available at the time...."

- evacuating schools

The FEMA Report on Page 87 states:

"Due to the time of year, County personnel did not have to contend with the problems of evacuating the seven schools located within the EPZ. Only one school within the EPZ was open for summer session at the time of the exercise. This was closed early by school officials (during the Site Area Emergency stage) on the pretext of a low water problem."

After the 1983 annual exercise the schools were identified as a problem area. Because of that a detailed school plan for Hancock County was developed. The plan details the closing of schools and the evacuation of students. It was developed with the assistance of the Hancock County school principals and the Hancock County school superintendent. There is also a School Services Standard Operating Procedure.

There will be a training session held with the School Services Officer to make certain he understands the plans and procedures.

- evacuating the transit-dependent population

The FEMA Report on Page 87 states:

"Capability for providing transportation for those members of the general population without their own means was partially demonstrated. The staff determined that 16 Hancock County and 10 Brooke County buses were available at the time, but there was no demonstration as to how these resources would be allocated to the various pickup points, nor was there a determination as to whether this was a sufficient quantity of buses to perform the evacuation."

This deficiency will be corrected with the transportation procedure rewrite and additional training. While the procedure lists the pickup points for the transit-dependent population it does not go into the detail necessary to assure sufficient transportation is provided. Once the update is completed, the transportation officer will receive additional training on the updated procedure.

- evacuating the handicapped, mobility-impaired, and others with special needs

It is unclear why this was cited as a Category A deficiency. There are two comments in the FEMA report that would indicate that the evacuating of the handicapped, mobility-impaired, and others with special needs, was adequately addressed.

FEMA Report Page 86, "B. Special Evacuation Problems."

"The evacuation of mobility-impaired and handicapped residents is a responsibility of the individual fire departments serving the districts in which those with special needs reside. Identification of the location and needs of such individuals has been accomplished through the use of a public information brochure, which is distributed annually. The brochure includes a post card by which residents can register their special needs. The Director exhibited copies of a large number of these cards which have been returned. The originals have been distributed to the appropriate fire departments. As a sufficient number of Federal observers was not available to visit the fire departments, no further demonstration of the County's capability to perform this aspect of evacuation was observed."

FEMA Report Page 87, "B. Special Evacuation Problems (cont.)."

"The County demonstrated evacuation of Fox Nursing Home. This occurred during the Site Area Emergency phase, according to the Director, because of the length of time and special problems involved. An initial census was requested by EOC personnel at about 0945 in order to establish transportation needs. After coordinating the evacuation decision with the nursing home director, two buses with wheelchair lifts and an ambulance were dispatched at 1145."

- controlling access to the evacuated area

Here, again, it is unclear why this was cited as a Category A deficiency. Since air, water and rail traffic was addressed as a separate Category A item, it can only be assumed that this deficiency was addressed to vehicular traffic. The FEMA Report states that control of vehicular traffic was demonstrated.

FEMA Report Page 85, "A. Evacuation and Access Control."

"Activation of traffic control points (simulated) was timely. The County requested 20 State Police troopers and the Highway Department to assist in providing the necessary resources. An estimate of the expected traffic volume was placed at only 1,000 vehicles based on an estimated EPZ population of 4,000. While actions to control vehicular traffic were demonstrated, air, water and rail traffic were not addressed.

One traffic control point was actually established, but this occurred during the Site Area Emergency phase (in conjunction with the nursing home evacuation, described below) and was not observed."

✓ - Recovery and Reentry

In the scenario packet submitted to FEMA, recovery and reentry was not listed as an exercise objective. In addition to that, in the same scenario packet, under Actual, Partial and Simulated Events it states:

"Recovery and reentry will not be played in this exercise."

Therefore, recovery and reentry should not be listed as a Category A deficiency.



CATEGORY B. The following deficiencies, while not indicative of preparedness insufficient to provide the assurance specified in Category A, require action.

WEST VIRGINIA STATE

1. Future exercises should demonstrate active and timely briefings throughout the course of the exercise to maintain a current level of awareness for all agency representatives concerning the latest activities and response operations.

Corrective Action/Date

The EOC Shift Leaders have been advised that timely briefings are necessary so that all agency representatives can maintain a current level of awareness of the exercise/emergency. This matter will also be discussed in the 1985 EOC staff training session.

The timely briefings will be demonstrated in the next WVOES exercise.

2. The role of the Controller as a non-participating exercise individual should be stressed in future exercises in order to more clearly test the roles of the actively-playing personnel.

Corrective Action/Date

The Controller was advised of the problem. In future exercises, controllers will be briefed on their responsibilities.

3. Stricter control and thoroughness is needed with regard to standard procedures for communications and message documentation within the EOC. Messages should be serially numbered to avoid loss of information and necessary information regarding time received, person receiving the information, actions taken, and routing should be applied to the message form.

Corrective Action/Date

The WVOES Emergency Operations Center SOP will be reviewed to assure that the logging of messages is explained properly.

The 1985 EOC staff training session will reflect the necessity for stricter control on messages.

4. Notification procedures for the State EOC of emergency classifications and identified points of contact should be reviewed, and corrections to the State plan made if appropriate.

Corrective Action/Date

These procedures will be reviewed and updated, if necessary, by December 31, 1984.

5. Protective actions were coordinated with the two adjacent impacted States in order to avoid confusion on the part of the general public. The State plan provides specific guidance with regard to protective actions which are to be taken based on projected doses to the public. If the State of West Virginia elects to adopt a standard 360 degree provision for implementing protective actions in mutual coordination with Pennsylvania and Ohio, this should be so noted in the plan.

Corrective Action/Date

This will be reviewed and updated as appropriate by December 31, 1984.

6. Future exercises should demonstrate active participation in protective action-decision making by the Governor or his/her designee, as provided for in the State plan.

Corrective Action/Date

In past exercises, the Governor's Office has provided a representative to the State EOC. It has also indicated that in future exercises a representative will be provided.

7. The State plan should be revised to consistently approach the subject of West Virginia's responsibility to contact FEMA regarding radiological emergency status classifications at the Beaver Valley Power Station.

Corrective Action/Date

The State plan will be reviewed and updated by December 31, 1984.

8. It is recommended that active use of the status board, to include significant actions taken by the agency representatives, be maintained throughout the course of future exercises in order to maintain agency representative awareness of current activities, to maintain coordination between these activities, and to heighten involvement in exercise actions.

Corrective Action/Date

The use and updating of status boards in the State EOC has been reviewed with the staff. It will also be included in the 1985 EOC staff training session.

9. Additional coordination and experience in the transfer of information via the hotline is warranted in order to make this a more viable means of communication.

Corrective Action/Date

The Beaver Valley Power Station is currently developing a procedure for the hotline. The procedure should be done prior to the BVPS 1985 exercise.

10. Future exercises should demonstrate consideration processes for the use of K1 and ingestion pathway decisions in accordance with the State plan. Air and rail transportation systems control should also be demonstrated.

Corrective Action/Date

Procedures for these items will be reviewed. These items will be considered for objectives in the next exercise.

11. The location where dose rate calculations are to be performed by WVDH/IHD staff, i.e., at the State or Hancock County EOCs, should be clarified in the State plan.

Corrective Action/Date

This item will be discussed with the WVDH/IHD and a decision made by December 31, 1984.

12. State EOC objectives for future exercises should be aligned with radiological emergency response activities assigned to the State, as identified in the State plan.

Corrective Action/Date

In future exercises, the State EOC objective will be more aligned to State radiological emergency assignments.

13. It is recommended that training be provided to all persons with potential news media responsibilities at the State level with regard to basic radiological emergency preparedness parameters. Future exercises should demonstrate exercise-specific briefings to the public information personnel immediately prior to actual or simulated briefings and/or technically-qualified persons should attend such briefings as an accurate information source to be called on to support the public information officer when necessary.

Corrective Action/Date

Training will be scheduled for the State public information people prior to the next exercise.

A special briefing will be conducted for the State PIO during the next exercise.

HANCOCK COUNTY

14. The Hancock County EOC is presently undergoing improvements, including construction of a new Communications Center and installation of an emergency generator. These improvements should be completed quickly in order to establish capability for efficient and uninterrupted EOC communication.

Corrective Action/Date

The new Communications Center is being completed as quickly as possible. The County is also in the process of requesting Federal funds through FEMA.

15. This exercise marked a deviation from the previous demonstration regarding accident assessment procedures - instead of relocating to the Hancock County EOC, the State's health physicist remained at the State EOC to perform accident assessment and dose calculation. It is recommended that, for future exercises and actual incidents, the health physicist relocate to the County EOC. This procedure will promote more efficient accident assessment capability, including the capability for rapid re-evaluation, by providing the health physicist direct consultation with the County Director and BVPS technical liaison, and more direct access to the field monitoring team and EOF liaison.

Corrective Action/Date

The County agrees with the FEMA observer that the person doing accident assessment and dose calculations be relocated to the County EOC. However, that is a decision that will have to be made at the State level. (See Category B, #11 for the State of West Virginia).

16. Despite activation of the primary EBS station, the secondary station, WEIR in Weirton, failed to activate due to a breakdown in the EBS procedures established in the Wheeling Operational Area Plan. Procedures should be reviewed with appropriate station personnel.

Corrective Action/Date

This deficiency has already been corrected. WEIR radio station received the EBS message but failed to rebroadcast it. The procedure was reviewed by station personnel.

17. Public instruction regarding evacuation procedures, routes, destinations, etc. was not demonstrated, despite the fact that such a demonstration was a stated exercise objective, and procedures are contained in the County plan. Future exercises should include preparation of appropriate emergency instructions for the public, in the form of both EBS messages and news releases.

Corrective Action/Date

Instructing the public was also cited in the Category A deficiency for Hancock County. The corrective action cited in the Category A will also apply here.

18. County EOC personnel were not adequately familiar with the population located within the 10-mile EPZ, citing inconsistent and low estimates. All County emergency organizations and personnel should be advised of the actual population figures, and re-evaluate their expected needs for resources, as appropriate.

Corrective Action/Date

The EOC staff training will be changed to address the 10-mile EPZ population figures and locations. The 1985 training is now being scheduled.

19. The County does not have permanent record dosimetry available. The County should assure that appropriate arrangements are made with a supplier of either film badges or thermoluminescent dosimeters, to assure the capability for maintaining accurate, permanent dose records for all County emergency workers.

Corrective Action/Date

The West Virginia Department of Health is working with Duquesne Light Company to correct this deficiency. An agreement should be reached by December 31, 1984.

20. There was a discrepancy regarding responsibility for registration of evacuees between the staffs at the reception center and mass care center. A determination should be made as to which staff is responsible.

Corrective Action/Date

Registration of evacuees is the responsibility of the mass care center staff. This will be clarified in the training given to both staffs. The 1985 training is now being scheduled.

21. In order to achieve a simultaneous activation of the alert and notification system, Hancock County delayed their siren sounding to coincide with the siren sounding in Beaver County, Pennsylvania. The sirens were not sounded in Hancock County within the required 15 minutes. FEMA-43, "Standard Guide for the Evaluation of Alert and Notification Systems for Nuclear Power Plants," states that the capability will be available for providing both an alert signal and an informational or instructional message to the population in the 10-mile EPZ within 15 minutes.

Corrective Action/Date

The County will participate in a remedial communications exercise with PEMA and Columbiana County, Ohio to demonstrate this coordination capability does in fact exist in Hancock County.