



UNITED STATES  
NUCLEAR REGULATORY COMMISSION  
WASHINGTON, D. C. 20555

January 31, 1990

MEMORANDUM FOR: Ronald R. Bellamy, Chief  
Facilities Radiological Safety  
and Safeguards Branch  
Division of Radiation Safety and Safeguards  
Region 1

FROM: Robert A. Erickson, Chief  
Emergency Preparedness Branch  
Division of Radiation Protection  
and Emergency Preparedness  
Office of Nuclear Reactor Regulation

SUBJECT: FEMA REPORT FOR THE SUSQUEHANNA STEAM  
ELECTRIC STATION

Enclosed is a letter from Dennis Kwiatkowski of the Federal Emergency Management Agency (FEMA) dated January 12, 1990, transmitting the FEMA Region III report for the February 22, 1989 exercise at the Susquehanna Steam Electric Station. This was a full-participation, after-hours, and unannounced exercise. There was one deficiency identified in the exercise resulting from the non-participation of Briar Creek Borough, a municipality located within the 10 mile EPZ. A remedial exercise was conducted on June 1, 1989, which successfully corrected the deficiency.

We recommend that you transmit the enclosed FEMA letter and exercise report to the licensee.

Robert A. Erickson, Chief  
Emergency Preparedness Branch  
Division of Radiation Protection  
and Emergency Preparedness  
Office of Nuclear Reactor Regulation

Enclosure:  
FEMA ltr. dtd. 1/12/90  
w/ enclosure

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# Federal Emergency Management Agency

Washington, D.C. 20472

JAN 12 1990

Mr. Frank J. Congel  
Director  
Division of Radiation Protection and  
Emergency Preparedness  
Office of Nuclear Reactor Regulation  
U. S. Nuclear Regulatory Commission  
Washington, D. C. 20555

Dear Mr. Congel:

Enclosed is a copy of the final exercise report of the February 22, 1989, exercise of the offsite radiological emergency preparedness plans site-specific to the Susquehanna Steam Electric Station. This was a full-participation, after-hours, and unannounced exercise with the Commonwealth of Pennsylvania, Luzerne and Columbia Counties, 26 risk municipalities, and the support counties of Lackawanna, Lycoming, Northumberland, Schuylkill, Union, and Wyoming. This final exercise report was prepared by the Region III office staff of the Federal Emergency Management Agency.

One deficiency was identified as a result of the non-participation of Briar Creek Borough. A remedial exercise was conducted on June 1, 1989, which successfully corrected the deficiency. The results of the remedial exercise are included in the report. In addition several areas requiring corrective action were identified. A schedule of corrective actions has been included in the report. Based on the February 22, 1989, exercise and the June 1, 1989, remedial exercise, the offsite radiological emergency preparedness is adequate to provide reasonable assurance that appropriate measures can be taken to protect the health and safety of the public in the event of an accident at the Susquehanna Steam Electric Station.

If you should have any questions, please contact Craig S. Wingo, Chief, Technological Hazards Division, at 646-3026.

Sincerely,

Dennis H. Kwiatkowski  
Assistant Associate Director  
Office of Natural and  
Technological Hazards

Enclosure

9001260220 1/1



RADIOLOGICAL EMERGENCY PREPAREDNESS  
EXERCISE EVALUATION REPORT

FACILITY: SUSQUEHANNA STEAM ELECTRIC STATION  
OPERATOR: PENNSYLVANIA POWER AND LIGHT COMPANY  
LOCATION: SALEM TOWNSHIP, LUZERNE COUNTY, PENNSYLVANIA

REPORT DATE: OCTOBER 30, 1989  
EXERCISE DATE: FEBRUARY 22, 1989

PARTICIPATING JURISDICTIONS:

COMMONWEALTH OF PENNSYLVANIA

RISK COUNTIES: LUZERNE AND COLUMBIA

26 RISK MUNICIPALITIES

SUPPORT COUNTIES: LACKAWANNA, LYCOMING, NORTHUMBERLAND,  
SCHUYLKILL, UNION, AND WYOMING

NON-PARTICIPATING JURISDICTIONS: BRIAR CREEK BOROUGH

REPORT PREPARED BY: FEDERAL EMERGENCY MANAGEMENT AGENCY AND THE  
REGIONAL ASSISTANCE COMMITTEE, REGION III,  
PHILADELPHIA, PENNSYLVANIA

Prepared in accordance with 44 CFR 350; and NUREG-0654/FEMA-REP-  
1, Rev. 1, November 1980.

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## EXECUTIVE SUMMARY

This document is the Post Exercise Evaluation Report on the joint, biennial Radiological Emergency Preparedness Exercise for the Susquehanna Steam Electric Station conducted on February 22, 1989. The report has been prepared in accordance with 44 CFR 350, NUREG-0654, REP-1, Rev-1, and FEMA Guidance Memorandum EX-3 (2/26/88). Exercise participants include the Commonwealth of Pennsylvania, the municipal and county jurisdictions located totally or partially within the 10-mile Emergency Planning Zone (EPZ) of the Susquehanna Steam Electric Station, and six support counties in the Commonwealth of Pennsylvania.

The majority of exercise objectives were adequately demonstrated by all participating jurisdictions and agencies. The objective most commonly failed was the provision of traffic and access control at the municipal level. On the whole, however, the level of play demonstrated by the exercise participants exceeded that outlined by pre-exercise agreements, especially in the staffing of Emergency Operation Centers (EOC).

One Deficiency was identified during the exercise. Officials of Briar Creek Borough, one of the risk municipalities located within the 10 mile EPZ of the Susquehanna Steam Electric Station, failed to participate in the exercise, as required by FEMA regulation 44 CFR 350. None of the exercise objectives applicable to the Borough were demonstrated in a manner consistent with the Borough's emergency plan, and there was no reasonable assurance that Borough emergency officials could take protective measures to assure the health and safety of the public within the Borough. Correction of this inadequacy was demonstrated by a remedial exercise, conducted on June 1, 1989. An evaluation of the remedial exercise is included as Appendix Three to this report.

Forty-one (41) less serious problem areas were identified during the exercise that will require corrective action. These inadequacies vary in significance, ranging from minor problems concerning simple modifications of existing emergency plans, to other issues of greater concern, such as the problematic utilization of one of the key communication links between the State EOC, the Utility, and the risk Counties. Correction of these inadequacies should be demonstrated during the next biennial exercise.

The report also identifies twenty-one (21) areas recommended for improvement that were observed during the exercise. These are not considered to adversely impact public safety, and do not require corrective action. These issues serve as advisory recommendations that, if adopted, should enhance the offsite response to a radiological emergency at the Susquehanna Steam Electric Station.



TABLE OF CONTENTS

	PAGE
EXECUTIVE SUMMARY.....	i
TABLE OF CONTENTS.....	ii
I. INTRODUCTION	
A. BACKGROUND.....	1
B. EVALUATION CRITERIA USED.....	2
II. OBJECTIVES	
A. LIST OF OBJECTIVES.....	3
B. OBJECTIVES NOT ADEQUATELY DEMONSTRATED.....	9
C. OBJECTIVES MATRIX CHART.....	10
III. SCENARIO	
A. SUMMARY.....	14
B. CHRONOLOGY OF EVENTS.....	16
IV. EXERCISE RESULTS	
A. PARTICIPANT EVALUATION	
1. STATE LOCATIONS AND ORGANIZATIONS.....	17
2. RISK COUNTIES AND MUNICIPALITIES.....	29
3. SUPPORT COUNTIES.....	87
B. SUMMARY LIST OF ISSUES.....	94
C. STATUS OF PRIOR ISSUES.....	150
APPENDICES	
PARTICIPATING JURISDICTIONS.....	158
EVALUATOR ASSIGNMENTS.....	159
BRIAR CREEK BOROUGH REMEDIAL EXERCISE.....	161

## I. INTRODUCTION

### A. BACKGROUND

Federal requirements dictate that periodic Radiological Emergency Response Preparedness exercises be conducted in support of nuclear power plants to evaluate major portions of emergency response capabilities. The exercises test the integrated capability and a major portion of the basic elements existing within emergency preparedness plans and organizations. The exercises simulate a coordinated response by State and local authorities along with the Utility, to include mobilization of personnel and resources adequate to verify the capability to deal with an accident scenario requiring responses up to, and including, evacuation. This was the fifth full participation exercise for the Susquehanna Steam Electric Station. The last full participation exercise was conducted on April 29, 1987.

The purpose of this report is to record the capabilities of State and local governments to respond to an accident at the Susquehanna Steam Electric Station based upon actual demonstration or simulation of their abilities during the February 22, 1989 joint, full participation exercise. Exercise issues classified as a Deficiency or Area Requiring Corrective Action have been identified; recommendations for corrective actions have been provided that will help to improve preparedness and response capabilities. Areas Recommended for Improvement, where corrective action is not mandated, have also been identified. Adoption of these should enhance the respective organization's level of emergency preparedness.

The exercise was evaluated by a team comprising individuals from FEMA Region III, the Regional Assistance Committee, Argonne National Laboratory (ANL), and the Center for Planning and Research (CPR).



## B. EVALUATION CRITERIA USED

The State and local governments participating in the 1989 Susquehanna Exercise were evaluated in terms of their ability to respond to an incident as prescribed by their emergency plans. The plans utilized during the response are as listed below:

1. Commonwealth of Pennsylvania Disaster Operations Plan, Annex E-Fixed Nuclear Facilities, November 1981, revised December 1988.
2. Luzerne County Radiological Emergency Response Procedures to Nuclear Power Plant Incidents at Susquehanna Steam Electric Station, January 1989.
3. Columbia County Radiological Emergency Response Procedures to Nuclear Power Plant Incidents at Susquehanna Steam Electric Station, January 1989.
4. The Emergency Operations Plans for the twenty-seven risk municipalities in the Susquehanna Steam Electric Station 10 mile EPZ, all revised within calendar year 1988.
5. The Emergency Operations Plans for Lackawanna, Lycoming, Northumberland, Schuylkill, Union, and Wyoming Counties, Annex E, County Support Procedures for Nuclear Power Incidents, all revised as of December 1988.

These plans were prepared under the authority of the Pennsylvania Emergency Management Services Act of 1978, P.L. 1332, and were developed in accordance with LORRG-0654/FEMA REP-1, Rev. 1, "Criteria for Preparation and Evaluation of Radiological Emergency Response Plans and Preparedness in Support of Nuclear Power Plants", November 1980.

## II. OBJECTIVES

### A. LIST OF OBJECTIVES

A list of 37 standard objectives for joint, biennial exercises was established with the issuance of FEMA Guidance Memorandum EX-3 (February 26, 1988), for purposes of assuring compliance with NUREG-0654/FEMA-REP-1, Rev. 1. This list, in its entirety, can be found below, accompanied by references to respective NUREG-0654/FEMA-REP-1 elements.

The Objectives are classified into three groups. Not all 37 objectives are required to be demonstrated at every exercise; Core objectives (Group A) are to be demonstrated at every biennial exercise as they apply, while applicable Groups B and C objectives must be demonstrated at least once every six years. Those objectives chosen for demonstration during the 1989 Susquehanna joint, biennial exercise are denoted by an asterisk (\*).

OBJECTIVE NUMBER

NUREG-0654/  
FEMA-REP-1

### GROUP A - CORE OBJECTIVES THAT ARE SCENARIO INDEPENDENT

#### EMERGENCY CLASSIFICATION LEVELS

- \*1. Demonstrate the ability to monitor, understand and use emergency classification levels (ECL) through the appropriate implementation of emergency functions and activities corresponding to ECL's as required by the scenario. The four ECL's are: Notification of unusual event, alert, site area emergency, and general emergency.
- D.3  
D.4

#### MOBILIZATION OF EMERGENCY PERSONNEL

- \*2. Demonstrate the ability to fully alert, mobilize and activate personnel for both facility and field-based emergency functions.
- E.1  
E.4

#### DIRECTION AND CONTROL

- \*3. Demonstrate the ability to direct, coordinate and control emergency activities.
- A.1.d  
A.2.a



#### COMMUNICATIONS

- \*4. Demonstrate the ability to communicate with all appropriate locations, organizations and field personnel. F.

#### FACILITIES EQUIPMENT AND DISPLAYS

- \*5. Demonstrate the adequacy of facilities, equipment, displays and other materials to support emergency operations. G.3.a,  
H.2, 3

#### EMERGENCY WORKER EXPOSURE CONTROL

- \*6. Demonstrate the ability to continuously monitor and control emergency worker exposure. K.3

#### FIELD RADIOLOGICAL MONITORING

- \*7. Demonstrate the appropriate equipment and procedures for determining field radiation measurement. I.8, 11
- \*8. Demonstrate the appropriate equipment and procedures for the measurement of airborne radioiodine concentrations as low as  $10^{-3}$  microcurie per cc in the presence of noble gases. I.9
- \*9. Demonstrate the ability to obtain samples of particulate activity in the airborne plume and promptly perform laboratory analyses. I.10

#### PLUME DOSE PROJECTION

- \*10. Demonstrate the ability, within the plume exposure pathway, to project dosage to the public via plume exposure, based on plant and field data. I.10

#### PLUME PROTECTIVE ACTION DECISION MAKING

- \*11. Demonstrate the ability to make appropriate protective action decisions, based on projected or actual dosage, EPA PAG's, availability of adequate shelter, evacuation time estimates and other relevant factors. J.10.m

## ALERT, NOTIFICATION AND EMERGENCY INFORMATION

- \*12. Demonstrate the ability to initially alert the public within the 10-mile EPZ and begin dissemination of an instructional message within 15 minutes of a decision by appropriate State and/or local official(s). E.6
- \*13. Demonstrate the ability to coordinate the formulation and dissemination of accurate information and instructions to the public in a timely fashion after the initial alert and notification has occurred. E.5,  
G.4.b
- \*14. Demonstrate the ability to brief the media in an accurate, coordinated and timely manner. G.3.a,  
G.4.a
- \*15. Demonstrate the ability to establish and operate rumor control in a coordinated and timely fashion. G.4.c

## GROUP B - SCENARIO-DEPENDENT OBJECTIVES

### USE OF POTASSIUM IODIDE (KI)

- \*16. Demonstrate the ability to make the decision to recommend the use of KI to emergency workers and institutionalized persons, based on predetermined criteria, as well as to distribute and administer it once the decision is made, if necessitated by radiiodine releases. J.10.e, f
- 17. Demonstrate the ability to make the decision, if the State plan so specifies, to recommend the use of KI for the general public, based on predetermined criteria, as well as to distribute and administer it once the decision is made, if necessitated by radiiodine releases. J.10.f

### IMPLEMENTATION OF PROTECTIVE ACTIONS

- \*18. Demonstrate the ability and resources necessary to implement appropriate protective actions for the impacted permanent and transient plume EPZ population (including transit-dependent persons, special needs populations, handicapped persons and institutionalized persons). J.9,  
J.10.d, g



19. Demonstrate the ability and resources necessary to implement appropriate protective actions for school children within the plume EPZ. J.9, J.10.g

#### TRAFFIC CONTROL

- \*20. Demonstrate the organizational ability and resources necessary to control evacuation traffic flow and to control access to evacuated and sheltered areas. J.10.j, k

#### RELOCATION CENTERS (REGISTRATION, MONITORING, CONGREGATE CARE AND DECONTAMINATION)

- \*21. Demonstrate the adequacy of procedures, facilities, equipment and personnel for the registration, radiological monitoring and decontamination of evacuees. J.12
- \*22. Demonstrate the adequacy of facilities, equipment and personnel for congregate care of evacuees. J.10.h

#### MEDICAL SERVICES (TRANSPORTATION AND FACILITIES)

- \*23. Demonstrate the adequacy of vehicles, equipment, procedures and personnel for transporting contaminated, injured or exposed individuals. L.4
- \*24. Demonstrate the adequacy of medical facilities, equipment, procedures and personnel for handling contaminated, injured or exposed individuals. L.1

#### DECONTAMINATION

- \*25. Demonstrate the adequacy of facilities, equipment, supplies, procedures and personnel for decontamination of emergency workers, equipment and vehicles, and for waste disposal. K.5.a, b

#### GROUP C - OTHER OBJECTIVES: TO BE DEMONSTRATED AT LEAST ONCE EVERY SIX YEARS

#### SUPPLEMENTARY ASSISTANCE (FEDERAL/OTHER)

26. Demonstrate the ability to identify the need for and call upon Federal and other outside support agencies' assistance. C.1.a, b

INGESTION EXPOSURE PATHWAY

27. Demonstrate the appropriate use of equipment and procedures for collection and transport of samples of vegetation, food crops, milk, meat, poultry, water and animal feeds (indigenous to the area and stored). 1.8, J.11
28. Demonstrate the appropriate lab operations and procedures for measuring and analyzing samples of vegetation, food crops, milk, meat, poultry, water and animal feeds (indigenous to the area and stored). C.3, J.11
29. Demonstrate the ability to project dosage to the public for ingestion pathway exposure and determine appropriate protective measures based on field data, FDA PAGs and other relevant factors. 1.10, J.9, J.11
30. Demonstrate the ability to implement both preventive and emergency protective actions for ingestion pathway hazards. J.9, J.11

RECOVERY, REENTRY AND RELOCATION

31. Demonstrate the ability to estimate total population exposure. M.4
32. Demonstrate the ability to determine appropriate measures for controlled reentry and recovery based on estimated total population exposure, available EPA PAG's and other relevant factors. M.1
33. Demonstrate the ability to implement appropriate measures for controlled reentry and recovery. M.1

MOBILIZATION OF EMERGENCY PERSONNEL (24-HOUR, CONTINUOUS BASIS)

34. Demonstrate the ability to maintain staffing on a continuous 24-hour basis by an actual shift change. A.1.e, A.4

EVACUATION OF ONSITE PERSONNEL

35. Demonstrate the ability to coordinate the evacuation of onsite personnel. B.6, J.2

UNANNOUNCED AND OFF-HOURS

- \*36. Demonstrate the ability to carry out emergency response functions (i.e., activate EOC's, mobilize staff that report to the EOC's, establish communications linkages and complete telephone call down) during an unannounced off-hours drill or exercise. N.1.b

(NOTE: The 1989 Susquehanna Joint, Biennial Exercise was unannounced, but was not conducted off-hours.)

UTILITY OFFSITE RESPONSE ORGANIZATIONS

37. Demonstrate the capability of utility offsite response organization personnel to interface with non-participating State and local governments through their mobilization and provision of advice and assistance. C.5, N.1.b



B. OBJECTIVES NOT ADEQUATELY DEMONSTRATED

The following table identifies those exercise objectives which were not adequately demonstrated by the associated location and/or activity. The table also lists the related Problem ID, as identified in the Summary List of Issues.

<u>Location/Activity</u>	Objective(s) not <u>Achieved</u>	<u>Problem ID</u>
Traffic/Access Control (State Police)	6	SQX-7R
Columbia County Emergency Worker Decontamination	25	SQX-11R, SQX-12R
Briar Creek Borough	all	SQX-1D
Briar Creek Township	20	SQX-16R
North Centre Township	20	SQX-20R
Conyngham Borough	20	SQX-27R
Conyngham Township	20	SQX-30R
Nanticoke City	5	SQX-33R
Shickshinny Borough	16	SQX-37R

The following Objectives Matrix Chart summarizes the accomplishment of exercise objectives as they applied to the various jurisdictions and organizations.

1989 SUSQUEHANNA EXERCISE  
 GH EX-3 OBJECTIVES EVALUATED

Site/Activity	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	UN	AH			
STATE EOC	Y	Y	Y	Y	Y						Y	Y				Y																				Y			
STATE PUBLIC INFORMATION ACTIVITIES													Y	Y	Y																								
ACCIDENT ASSESSMENT	Y	Y	Y	Y	Y					Y	Y																										Y		
EOF	Y	Y		Y	Y	Y				Y	Y																											Y	
FIELD MONITORING TRANS		Y		Y		Y	Y	Y	Y																														
STATE TRAFFIC/ACCESS CONTROL		Y		Y		N														Y																			
JOINT INFORMATION CENTER	Y	Y	Y	Y	Y	Y							Y	Y	Y																						Y		
COLUMBIA COUNTY																																							
COUNTY EOC	Y	Y	Y	Y	Y	Y						Y	Y	Y	Y	Y	Y																					Y	
RECEPTION/MASS CARE CENTERS				Y		Y															Y	Y																	
EMERGENCY WORKER DECONTAMINATION		Y		Y		Y																					N												
BEAVER TOWNSHIP EOC	Y	Y	Y	Y	Y	Y						Y				Y	Y		Y																			Y	
BERWICK BOROUGH	Y	Y	Y	Y	Y	Y						Y				Y	Y		Y																			Y	
BRIAR CREEK BOROUGH EOC	N	N	N	N	N	N						N				N	N																					N	
BRIAR CREEK TOWNSHIP EOC	Y	Y	Y	Y	Y	Y						Y				Y	Y		N																			Y	

NOTES: Met Objective: Y = Yes; N = No Objective 17 not applicable to Region III Objective 36: UN = Unannounced Exercise; AH = After Hours Exercise



1989 SUSQUEHANNA EXERCISE  
 GN XI-3 OBJECTIVES EVALUATED

Site/Activity	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	UM	AH			
FISHING CREEK TOWNSHIP EOC	Y	Y	Y	Y	Y	Y						Y				Y	Y		Y																		Y			
MIFFLIN TOWNSHIP EOC	Y	Y	Y	Y	Y	Y						Y				Y	Y		Y																			Y		
NORTH CENTRE TOWNSHIP EOC	Y	Y	Y	Y	Y	Y						Y				Y	Y		N																		Y			
SOUTH CENTRE TOWNSHIP EOC	Y	Y	Y	Y	Y	Y						Y				Y	Y		Y																			Y		
LOZERVE COUNTY																																								
COUNTY EOC	Y	Y	Y	Y	Y	Y						Y	Y	Y	Y	Y																						Y		
RECEPTION/MASS CARE CENTERS				Y		Y															Y	Y																		
EMERGENCY WORKER DECONTAMINATION		Y		Y		Y																				Y														
MEDICAL SERVICES				Y		Y																	Y	Y																
BLACK CREEK TOWNSHIP EOC	Y	Y	Y	Y	Y	Y						Y				Y	Y		Y																				Y	
BUTLER TOWNSHIP EOC	Y	Y	Y	Y	Y	Y						Y				Y	Y		Y																				Y	
CONYNGHAM BOROUGH EOC	Y	Y	Y	Y	Y	Y						Y				Y	Y		N																				Y	
CONYNGHAM TOWNSHIP EOC	Y	Y	Y	Y	Y	Y						Y				Y	Y		N																				Y	
DOBBANCE TOWNSHIP EOC	Y	Y	Y	Y	Y	Y						Y				Y	Y		Y																				Y	
HOLLENBACK TOWNSHIP EOC	Y	Y	Y	Y	Y	Y						Y				Y	Y		Y																				Y	

NOTES: Met Objective: Y = Yes; N = No Objective 17 not applicable to Region III Objective 36: UM = Unannounced Exercise; AH = After Hours Exercise



1989 SUSQUEHANNA EXERCISE  
 GN BY-3 OBJECTIVES EVALUATED

Site/Activity	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	UN	AH			
HONLOCK TOWNSHIP EOC	Y	Y	Y	Y	Y	Y						Y				Y	Y		Y																	Y			
HUNTINGTON TOWNSHIP EOC	Y	Y	Y	Y	Y	Y						Y				Y	Y		Y																		Y		
NANTICOKE CITY EOC	Y	Y	Y	Y	Y	Y						Y				Y	Y		Y																		Y		
NESCOPECK BOROUGH EOC	Y	Y	Y	Y	Y	Y						Y				Y	Y		Y																		Y		
NESCOPECK TOWNSHIP EOC	Y	Y	Y	Y	Y	Y						Y				Y	Y		Y																		Y		
NEW COLUMBUS BOROUGH EOC	Y	Y	Y	Y	Y	Y						Y				Y	Y		Y																		Y		
NEWPORT TOWNSHIP EOC	Y	Y	Y	Y	Y	Y						Y				Y	Y		Y																		Y		
NDANGOLA BOROUGH EOC	Y	Y	Y	Y	Y	Y						Y				Y	Y		Y																		Y		
SALLEN TOWNSHIP EOC	Y	Y	Y	Y	Y	Y						Y				Y	Y		Y																		Y		
SHICKSHINNY BOROUGH EOC	Y	Y	Y	Y	Y	Y						Y				Y	Y		Y																		Y		
SLOCUM TOWNSHIP EOC	Y	Y	Y	Y	Y	Y						Y				Y	Y		Y																		Y		
SUGARLOAF TOWNSHIP EOC	Y	Y	Y	Y	Y	Y						Y				Y	Y		Y																		Y		
UNION TOWNSHIP EOC	Y	Y	Y	Y	Y	Y						Y				Y	Y		Y																		Y		
LACKAWANNA COUNTY EOC	Y	Y		Y																																			
RECEPTION/MASS CARE CENTERS				Y		Y															Y	Y																	

NOTES: Met Objective: Y = Yes; N = No Objective 17 not applicable to Region III Objective 36: UN = Unannounced Exercise; AH = After Hours Exercise

1989 SUSQUEHANNA EXERCISE  
 GN XI-3 OBJECTIVES EVALUATED

Site/Activity	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	UN	AR	
LYCOMING COUNTY EOC	Y	Y		Y																																	
RECEPTION MASS/CARE CENTERS				Y		Y																Y	Y														
WORTHAMBERLAND COUNTY EOC	Y	Y		Y																																	
RECEPTION/MASS CARE CENTERS				Y		Y																Y	Y														
SCHUYLKILL COUNTY EOC	Y	Y		Y																																	
RECEPTION/MASS CARE CENTERS				Y		Y																Y	Y														
UNION COUNTY EOC	Y	Y		Y																																	
RECEPTION/MASS CARE CENTERS				Y		Y																Y	Y														
WYOMING COUNTY EOC	Y	Y		Y																																	
RECEPTION/MASS CARE CENTERS				Y		Y																Y	Y														

NOTES: Met Objective: Y = Yes; N = No Objective 17 not applicable to Region III Objective 36: UN = Unannounced Exercise; AR = After Hours Exercise



### III. SCENARIO

#### A. SUMMARY

The following is an abstract from the scenario developed by the Pennsylvania Power and Light Company to serve as the basis for response to a simulated radiological accident at the Susquehanna Steam Electric Station Unit #1, during the February 1989 Full Scale Exercise.

#### INITIAL CONDITIONS

Susquehanna Steam Electric Station has been at 100% power for the past eight months with the exception of normal surveillance testing (MSIV and Turbine Valve testing, rod swaps, etc.). The plant has been operating since the last refueling outage with minimal problems. One recurring problem involves the Containment Instrument Gas (CIG) Compressor Motor. Presently the "B" Compressor is out of service for motor repair. The "A" Compressor was returned to service at the beginning of last week after having its motor replaced.

An increase in drywell leakage is being attributed to a Vacuum Breaker Valve. The unidentified leak rate is about 2.5 GPM and total leakage about 3.0 GPM. (The leakage is the source of containment activity for the Containment Instrument Gas System in the scenario.)

#### SCENARIO

The scenario begins when security personnel, responding to an alarm, encounter an intruder at the Emergency Service Water Pump House. At about the same time an alarm originating in the plant will be received in the Control Room indicating a problem with the Containment Instrument Gas (CIG) System. At this time, approximately 1500, the Shift Supervisor is expected to make the Unusual Event Emergency Classification.

Operations dispatch an Operator to investigate the alarm and find the control switch out of position. At approximately 1600, the Shift Supervisor will escalate the Emergency Classification Level to an Alert based on the suspicious problem with the CIG that indicates a heightened security condition.

Because of these security events and the suspicion of problems inside the plant, it is expected that Operations will initiate a search of the Emergency



Systems to verify that there are no additional problems in the plant. The search reveals an open vent valve on the Containment Instrument Gas System Penetration Header in Penetration Room 506 of the Reactor Building. Containment atmosphere, contaminated nitrogen, is escaping from the open valve. At approximately 1630 two individuals entering the space are asphyxiated due to the lack of oxygen, and pass out. The fall causes contaminated injuries requiring transport to outside facilities for treatment.

At 1800 an explosive device planted by the intruder detonates, rendering the Reactor Water Cleanup (RWCU) System Valve at the containment penetration inoperable, causing a breach of the system. The intruder's sabotage of the inboard isolation valve assures that the break in the system is not isolatable. The line break and resulting steam/water leak causes an increase of pressure inside the RWCU Pump Room, which is relieved to the atmosphere via the steam vent. This vent is an unmonitored and untreated release path. At approximately 1830 the containment had increase necessitates an escalation of the Emergency Classification Level to a Site Area Emergency.

The initial response by Operations to the situation is to shut down the Reactor and depressurize to reduce leakage from the plant. The High Pressure Coolant Injection System has been taken out of service for preventative maintenance and is not available for operation, thus, eliminating it for use as a cool down mechanism. The fact that the Containment Instrument Gas System has been made inoperable by the intruder also eliminates the Safety Relief Valves as a method for cool down.

These conditions warrant an escalation to General Emergency at approximately 1945. Plant conditions and the offsite release are sufficient to drive protective actions and require consideration of Potassium Iodide distribution and ingestion by Emergency Workers.

The exercise objectives are expected to be satisfied by 2300 hours at which time the exercise will be terminated.

B. CHRONOLOGY OF EVENTS

Projected Time		Actual Time
	Unusual Event	
1600	Alert	1605
1830	Site Area Emergency	1820
1945	General Emergency	1921
	Siren Activation	2017
	Protective Actions	2002
2300	Termination	2235

#### IV. EXERCISE RESULTS

##### A. PARTICIPANT EVALUATIONS

##### 1. STATE LOCATIONS AND ORGANIZATIONS

###### STATE EOC

Objective 1, the ability to monitor, understand and use emergency classification levels (ECL) was adequately demonstrated at the Pennsylvania State EOC. Achievement of this objective continues to be enhanced by the utilization of a computerized checklist of tasks to be completed during each classification stage. A key feature of this checklist instrument is its tracking of uncompleted tasks throughout classification escalations. It should be noted that this feature remained operable during periods in the exercise when other elements of the EOC's computerized system failed.

Objective 2, the ability to fully alert, mobilize and activate personnel for both facility and field-based emergency functions was adequately demonstrated. All plan prescribed EOC staff members, including an entire second shift of PEMA personnel, were mobilized and operational prior to the declaration of Site Area Emergency. State level liaison officers representing the Pennsylvania Department of Transportation and the Department of Military Affairs (National Guard), however, were not activated and dispatched to the Columbia County and Luzerne County EOC's, as prescribed by Annex E (see E-52 of the Basic Document and Appendix 13, page E-13-2).

Objective 3, the ability to direct, coordinate and control emergency activities was adequately demonstrated. Some difficulty in the area of internal message-handling was experienced but effectively addressed. The primary, automated internal information system, termed the "Emergency Information System" ("EIS") Local Area Network, broke down during a critical period in the General Emergency Classification Level of the exercise. The failure of this computerized system mandated the use of the manual backup system (involving handwritten notes and couriers), which was accomplished without negatively impacting response capability.

Objective 4, the ability to communicate with all appropriate locations, organizations, and field personnel, was adequately demonstrated. The dedicated line to BRP was utilized successfully throughout the exercise, rectifying a prior inadequacy. The dedicated conferencing line (the primary means for simultaneously linking the State EOC with the EOF and risk counties) was not used properly at the State EOC through most of the exercise. PEMA did not answer this line except for the last two messages of the exercise. The Utility's Communications Coordinator at the EOF was able to effectively communicate with both risk county EOC's on the



dedicated line, but was forced to utilize a backup link (a commercial line), involving the intervention of EOC support personnel, in forwarding several priority messages to the State EOC Operations Director. These included the notification of the escalation to General Emergency and the event of a release, receipt of which was delayed by 8 minutes. The reason for PENA's failure to answer this line has not been identified.

Objective 5, the adequacy of facilities, equipment, displays and other materials to support emergency operations was adequately demonstrated.

Objective 11, the ability to make appropriate protective action decisions as applicable to State EOC responsibilities and functions, was adequately demonstrated.

Objective 12, the ability to initially alert the public within the 10-mile EPZ and begin dissemination of an instructional message within 15 minutes of a decision by appropriate officials, was adequately demonstrated. The manner in which the state EOC prefaced the order to the risk counties to commence with an EBS instructional message, however, contributed to the problematic dissemination of public instruction via the EBS on part of the Luzerne County EOC. The message content transmitted by the State EOC was interpreted as verbatim message text by Luzerne County, which abandoned utilization of the prescribed EBS message provided by the County Plan for evacuation of the EPZ. (See Objective 12 under Luzerne County EOC.) This message content was recorded by the State EOC 2002 hard copy, as follows:

"This is the 15 minute notification procedure. Simulate sounding of sirens at 2017. Simulate activation of EBS with exercise EBS message and conduct route alerting where required. The EBS message is: There is moderate radiation at site boundary and escaping offsite. The Governor has ordered evacuation of the ten mile EPZ. 360 degrees."

Objective 13, the ability to coordinate the formulation and dissemination of accurate information and instructions to the public after the initial alert and notification has occurred, was adequately demonstrated.

Objective 14, the ability to brief the media in an accurate, coordinated, and timely manner, was adequately demonstrated. The PENA Press Secretary and his associates utilized state-of-the-art electronic media in the State House for the accomplishment of this end. More than fifty radio stations called in to obtain State-prepared radio feeds of interviews with the Lt. Governor and other officials.

Objective 15, the ability to establish and operate rumor control in a coordinated and timely fashion, was adequately demonstrated.

Objective 16, the ability to make the decision to recommend the use of KI by emergency workers was adequately demonstrated by State personnel. The decision was based on projected dose according to the criteria of FDA PAG's; the correctness of that decision was later confirmed by field data.

Objective 36, the ability to conduct an unannounced exercise was adequately demonstrated. There was no evidence of foreknowledge or special preparation immediately prior to exercise initiation on the part of State EOC participants.

## ACCIDENT ASSESSMENT

Objective 1, the ability to monitor, understand and use emergency classification levels as a basis for appropriate action, was adequately demonstrated by the Bureau of Radiation Protection (BRP).

Objective 2, the ability to fully alert, mobilize and activate personnel for both facility and field-based emergency functions, was adequately demonstrated. For purposes of expanding staff experience, alternate BRP personnel were mobilized and used during the exercise.

Objective 3, the ability to direct, coordinate and control emergency activities, was adequately demonstrated as applicable to BRP responsibilities.

Objective 4, the ability to communicate with all appropriate locations, organizations, and field personnel, was adequately demonstrated. When the exercise started, the dedicated line between the EOF and BRP at the State EOC was down, and remained inoperable until 1927. During this time the backup link between the EOF and BRP at the BRP Office in the Fulton Building (also constituted by a dedicated line) was adequately utilized until the timely repairs to the primary line were completed.

Objective 5, the adequacy of facilities, equipment, displays, and other materials to support emergency operations, was effectively demonstrated for BRP functions at the Fulton Building.

Objective 10, the ability, within the plume exposure pathway, to project dosage to the public via plume exposure, based on plant and field data, was adequately demonstrated by the BRP as allowed by scenario provisions. Plume dose projection could not be accomplished from plant data because of an unmonitored release written into the scenario. The BRP response was to utilize field monitoring data to characterize the plume. This was done properly, though at one point a field monitoring team went to the wrong location. This error was quickly spotted and corrected. There was also an error in calculating an iodine concentration made by a field team which again was detected and corrected by BRP.

Objective 11, the ability to make appropriate protective action decisions, based on projected or actual dosage, EPA PAGs, availability of adequate shelter, evacuation time estimates, and other relevant factors, was adequately demonstrated. Protective action decision making was especially difficult due to a lack of information from the utility. (See Objective 11, under Emergency Operation Facility.) The unmonitored release prevented dose projections from being performed except from field data. The decision to follow the utility's recommendation (although delayed



on part of the plant) was appropriate.

Objective 36, the ability to conduct an unannounced exercise, was adequately demonstrated with regard to BRP operations.

## EMERGENCY OPERATIONS FACILITY (EOF)

Objective 1, the ability to monitor, understand and use emergency classification levels (ECL) through the appropriate implementation of emergency functions and activities corresponding to the ECLs as required by the scenario, was adequately demonstrated. The licensee made timely and conservative emergency classifications and subsequent notifications to offsite authorities. The BRP and NRC response staffs were promptly and adequately briefed on current classification levels as they arrived.

Objective 2, the ability to fully alert, mobilize and activate personnel for both facility and field-based emergency functions was adequately demonstrated. The Licensee had a problem resulting in a delayed notification of the Allentown staff. This problem did not adversely affect EOF activation, and bears no assessment significance on the alert and notification capabilities of offsite responders.

Objective 4, the ability to communicate with all appropriate locations, organizations, and field personnel was adequately demonstrated.

Objective 5, the adequacy of facilities, equipment, displays and other materials to support emergency operations, was effectively demonstrated.

Objective 6, the ability to continuously monitor and control emergency worker exposure, was adequately demonstrated. The Licensee issued TLD's to all staff within the EOF. Dosimeters were not issued as facility habitability was continuously monitored and assessed.

Objective 10, the ability, within the plume exposure pathway, to project dosage to the public via plume exposure based on plant and field data, was adequately demonstrated. No difficulties were noted in the Licensee's ability to perform dose projections. BRP activities for dose projections were not performed from the EOF.

Objective 11, the ability to make appropriate protective action decisions based on projected or actual dosage, EPA PAG's, availability of adequate shelter, evacuation time estimates, and other relevant factors, was adequately demonstrated as applicable to EOF responsibilities. The Licensee issued a Protective Action Recommendation (PAR) to the Commonwealth that was consistent with plant conditions and in compliance with current guidance. The Licensee made the PAR based on projected dose, and release duration and direction. They did not consider evacuation time estimates or dose savings of shelter vs. evacuation. The Licensee did confer with the BRP staff in the EOF in formulating the PAR.

The Licensee's PAR was delayed and was not made within the time

period mandated by NRC guidelines. BRP reacted promptly with a Protective Action once the PAR was received. This is an area that requires corrective action by the Licensee that will be documented and verified in the NRC's inspection process.

Objective 36, the ability to conduct an unannounced exercise, was adequately demonstrated. The Licensee and BRP were able to notify and mobilize staff in a timely manner. No pre-staging was noted.



## FIELD MONITORING TEAMS

Objective 2, the ability to fully alert, mobilize and activate personnel for both facility and field-based emergency functions, was adequately demonstrated. Two BRP field monitoring teams were notified by either pager or commercial phone at about 1700 hours, and arrived from Harrisburg at approximately 1900 hours. Both teams were dispatched to their first monitoring point by 1921 hours.

Objective 4, the ability to communicate with all appropriate locations, organizations, and field personnel was adequately demonstrated.

Objective 6, the ability to continuously monitor and control emergency worker exposure, was adequately demonstrated. Two problem areas were observed, however. The first has to do with personal protective equipment; the Norristown 113 field team was not provided with such items as gloves, booties, and coveralls. The second issue centered around the teams' understanding of authorized exposure limits. One Norristown 113 team member stated that the authorized exposure for their mission was .5 R, while a second stated that the limit was 25 R. This discrepancy indicates a need for further training and procedural familiarization on part of the field team personnel.

Objective 7, the appropriate equipment and procedures for determining field radiation measurements, were adequately demonstrated. Several problematic items have been identified, however, regarding the procedures and equipment utilized by the teams in the field. The Norristown 113 team was not provided with a radioactive check source to determine the correct operation of both their low and high range survey instruments. A Ba-133 check source was used to set the window on their dual-channel digital analyzer connected to a RD-19 NaI gamma detector.

The E-520 (G-M), survey instrument (S/N 4096) did not have a calibration sticker. (The PIC-6A meter had a sticker with a 4/88 calibration date.) In addition, the survey instrument detectors were not enclosed in plastic bags in order to minimize possible contamination.

The Norristown 113 team was unfamiliar with the location of their first monitoring point, causing a minor delay in their deployment. This 10 minute delay did not adversely impact field monitoring operations.

Objective 8, the appropriate equipment and procedures for the measurement of airborne radiiodine concentrations as low as 10<sup>-7</sup> microcuries per cc in the presence of noble gases, were

adequately demonstrated. The team properly followed the BRP procedures in obtaining and counting air samples. Although BRP procedures deviate in some aspects from the guidance contained in FEMA REP 2, the BRP procedures have been evaluated by FEMA Headquarters and approved.

Decontamination equipment and procedures were not provided to the Norristown 113 team for decontamination of the air sampler filter holder prior to taking another sample.

Objective 9, the ability to obtain samples of particulate activity in the airborne plume and promptly perform laboratory analyses, was adequately demonstrated. The Reading 104 team did promptly pick up the particulate filter and simulated transporting the sample to the Harrisburg BRP laboratory for analyses.

## TRAFFIC AND ACCESS CONTROL

Objective 2, the ability to fully alert, mobilize and activate personnel for both facility and field-based emergency functions, was adequately demonstrated by the Pennsylvania State Police (PSP). The Pennsylvania Department of Transportation (PA DOT), however, did not field personnel at the risk county EOC's as called for by Annex E and the respective county plans. (See Objective 2 under the State EOC above.) This omission would likely affect coordination between PA DOT and the PSP at the county level during the management of an evacuation, such as in the acquisition and deployment of barricades and traffic control devices.

Objective 4, the ability to communicate with all appropriate locations, organizations, and field personnel, was adequately demonstrated.

Objective 6, the ability to continuously monitor and control emergency worker exposure, was not adequately demonstrated by the PSP. There was no simulation of the issuing of TLD's by either of the participating PSP Troops. There was also no simulation of the issuing of KI, low range dosimeters, and exposure control record forms, or an adequate briefing on the use of such items, for the Troopers being dispatched from the Bloomsburg Substation to man their designated ACP's and TCP's.

Objective 20, the organizational ability and resources necessary to control evacuation traffic flow and to control access to evacuated and sheltered areas, was adequately demonstrated as applicable to designated State responsibilities.



## JOINT MEDIA CENTER

Objective 1, the ability to monitor, understand and use emergency classification levels, was adequately demonstrated.

Objective 2, the ability to fully alert, mobilize and activate personnel for emergency functions at the Joint Media Center (JMC) in Berwick, was adequately demonstrated.

Objective 3, the ability to direct, coordinate and control emergency activities, was adequately demonstrated by the PEMA PIO and other JMC staff members, who generally displayed sufficient training and knowledge.

Objective 4, the ability to communicate with all appropriate locations, organizations and field personnel, was adequately demonstrated. However, the fact that only two commercial phone lines were available in the JMC, and that all outgoing calls were routed through the utility communications network in Allentown, caused some minor message delays (at times as long as thirty minutes for facsimile communications). These delays did not have significant impact on JMC operations during the exercise.

Objective 5, the adequacy of facilities, equipment, and displays to support emergency operations, was effectively demonstrated. The JMC is spacious and equipped to accommodate 150-200 media representatives for briefings. Satellite communications between the PEMA Media Center and the JMC in Berwick were used for the first time in a Susquehanna REP exercise.

Objective 6, the ability to continuously monitor and control emergency worker exposure, was adequately demonstrated. The PIO was not aware of the need for dosimetry for emergency workers in the JMC. This need is precluded, however, by JMC evacuation procedures, demonstrated by the simulation of the relocation of the JMC to the Hazleton PP&L Service Center during the exercise.

Objective 13, the ability to coordinate the formulation and dissemination of accurate information and instructions to the public in a timely fashion after the initial alert and notification has occurred, was adequately demonstrated. Emergency information and public instructions were developed and disseminated by the PEMA Commonwealth Emergency News and Information Center in Harrisburg. News releases were faxed to the JMC, where they were effectively used in briefings and distributed to media representatives.

Objective 14, the ability to brief the media in an accurate, coordinated and timely manner, was adequately demonstrated. Six briefings were conducted for the media, two of which included satellite briefings by PEMA officials from Harrisburg.

Objective 15, the ability to establish and operate rumor control in a coordinated and timely fashion, was adequately demonstrated.

Objective 36, the ability to conduct an unannounced exercise, was adequately demonstrated.

## 2. RISK COUNTIES AND MUNICIPALITIES

### COLUMBIA COUNTY EOC

Objective 1, the ability to monitor, understand and use emergency classification levels (ECLs) through the appropriate implementation of emergency functions and activities corresponding to ECLs as required by the scenario, was adequately demonstrated. The relevant functions and activities were performed in accordance with the emergency plan.

Objective 2, the ability to fully alert, mobilize and activate EOC personnel was adequately demonstrated. All County-level positions were manned, and many positions were double staffed. Two State-level liaisons, Department of Transportation and National Guard, were not present.

Objective 3, the ability to direct, coordinate and control emergency activities was adequately demonstrated by the coordinator and staff, although there were two instances where information should have been provided more promptly. The public information and rumor control staff, working in a room separate from the Operations staff, experienced some delay in receiving status updates and other important information; after receiving the General Emergency notification, there was a delay of 14 minutes before the county communications staff transmitted the notification to the municipal EOCs via the emergency management radio. The coordinator provided county EOC personnel to staff the Briar Creek Borough EOC, because officials there did not participate, and the basic requirements for protecting the health and safety of the residents of that municipality were addressed (this does not excuse municipal officials from the need to demonstrate the capability for performing their plan-designated responsibilities via a remedial exercise).

Objective 4, the ability to communicate with all appropriate locations, organizations, and field personnel, was adequately demonstrated. The EOC had sufficient primary and backup communications equipment to meet anticipated contingencies.

Objective 5, the County EOC provided adequate facilities, equipment, displays and other materials to support emergency operations. It is recommended that the EOC be reconfigured, if possible, to reduce the number of small rooms, and provide a larger operations area.

Objective 6, the ability to continuously monitor and control emergency worker exposure, was adequately demonstrated. The EOC had sufficient quantities of dosimeters, TLDs, survey meters, and related equipment, as specified by the plan, for use by county emergency workers and farmers. The Radiological Officer demonstrated thorough knowledge of exposure control procedures.



and the agricultural agent demonstrated the procedure for certifying farmers as emergency workers, to allow them access to the EPZ.

Objective 12, appropriate measures to initially alert the public within the 10-mile EPZ and begin dissemination of an instructional message within 15 minutes of a decision were demonstrated by County officials at the EOC, to the extent required by the plan. The Coordinator took an active role in coordinating the activation of the siren system with Luzerne County, and the activation occurred at the time specified by the State EOC, thus fulfilling FEMA's 15-minute requirement. The Public Information Officer prepared an appropriate EBS message regarding the protective action, and demonstrated the procedure with the EBS station for broadcasting the message following siren activation (because this was an unannounced exercise, siren and EBS activations were simulated).

Objective 13, the ability to coordinate the formulation and dissemination of accurate information and instructions to the public in a timely fashion, after the initial alert and notification, was adequately demonstrated by the public information staff at the County EOC. The public information function was performed in accordance with the plan. News items were approved prior to release and coordinated with the State and Joint media centers. While county news releases were not untimely, the Public information and rumor control staff should have received status updates more promptly.

Objective 14, the ability to brief the media in an accurate, coordinated and timely manner, was adequately demonstrated by the public information staff at the county EOC, in accordance with the plan. The staff demonstrated numerous telephone briefings of media representatives, and provided accurate and current information. Media representatives were not present at the EOC during the exercise, although space was available for briefings.

Objective 15, the public information staff demonstrated The ability to establish and operate rumor control in a coordinated and timely fashion. As noted under Objective 13., status updates and other important information should have been provided to the public information and rumor control staff more promptly.

Objective 16, the ability to make the decision to recommend the use of KI to emergency workers and institutionalized persons based on predetermined criteria, as well as to distribute and administer it once the decision is made, if necessitated by radiiodine releases, was demonstrated at the County EOC to the extent required by the plan and scenario events. An adequate supply of KI was available, and officials knew the proper authorization procedure. The decision to recommend the use of KI was received from the State EOC and was passed on to the municipalities.

Objective 15, the ability and resources necessary to implement appropriate protective actions for the impacted permanent and transient plume EPZ population (including transit-dependent persons, special needs populations, handicapped persons and institutionalized persons), was adequately demonstrated. The Transportation and Medical groups made thorough arrangements for evacuating the hospital and nursing home, and providing busses and ambulances to meet the municipal needs.

Objective 16, the capability to respond to an unannounced exercise was adequately demonstrated. All appropriate county staff were notified and mobilized in a timely manner.

## COLUMBIA COUNTY RECEPTION AND MASS CARE CENTERS

Objective 4, the Columbia County Reception and Mass Care center demonstrated the ability to communicate with all appropriate locations, organizations and field personnel. Three commercial telephone lines were available at both locations, as well as a radio linking all schools in the district. Personnel at the mass care center had a hand held radio for communicating with the County EOC. NACES operators were available if needed.

Objective 6, Columbia County Mass Care Center Personnel demonstrated the ability to continuously monitor and control emergency worker exposure. Monitoring personnel had the proper radiological instruments, TLDs, dosimeters and KI, and were familiar with their use and who to contact for authorization for exposure in excess of the mission limit.

Objective 21, at the Columbia County Reception and Mass Care Centers, the adequacy of procedures, facilities, equipment, and personnel for the registration, radiological monitoring and decontamination of evacuees were demonstrated. The reception center was activated and staffed promptly and effectively. Registration was performed at both the reception center and the mass care center, using the standard Red Cross Form. Radiological monitoring personnel were appropriately equipped, and demonstrated proper monitoring procedures. However, the monitoring location was not near enough to the decontamination showers to accommodate re-monitoring while minimizing the potential for spreading contamination.

Objective 22, the adequacy of the Columbia County Mass Care Center facilities, equipment, and personnel for congregate care of evacuees was demonstrated. The Red Cross personnel were promptly activated, and performed evacuee registration and assignment to shelter in an excellent manner. The shelter was an excellent facility, with a sufficient food supply available.



## COLUMBIA COUNTY EMERGENCY WORKER DECONTAMINATION STATION

Objective 2, the ability to fully alert, mobilize and activate personnel for the Columbia County Emergency Worker Decontamination Station was demonstrated, to the degree required by the objective and plan.

Objective 4, the ability to communicate with all appropriate locations, organizations, and field personnel was demonstrated at the Columbia County Emergency Worker Decontamination Station via two hand held radios which provided a link to the County EOC. The primary radio operated satisfactorily, but the backup radio did not receive. In addition, commercial telephones were available at the facility; these were not needed, and thus were not demonstrated during the exercise.

Objective 6, the ability to continuously monitor and control emergency worker exposure was demonstrated by the staff at the decontamination facility. Each staff member had the appropriate dosimeters, TLD, KI and related equipment. They adequately demonstrated the procedures for reading and recording their exposures, and knew the procedure for KI authorization. They were not fully informed about the authorized exposure limit, but demonstrated a clear understanding of the chain of command for resolving this and other issues.

Objective 25, the adequacy of facilities, equipment, supplies, procedures, and personnel for decontamination of emergency workers, equipment and vehicles was not adequately demonstrated at the Columbia County Emergency Worker Decontamination Station. Expected vehicles did not arrive, so there was no demonstration of vehicle monitoring. The facility provided adequate space for vehicles, but vehicle decontamination was not demonstrated, as the equipment was not set up. There were no arrangements for routing vehicles or personnel into the facility. The building was large enough to accommodate emergency workers, but the facilities for personnel decontamination were inadequate in several respects. Personnel routing was such that recontamination could occur after showering (cross-contamination); shower facilities were set up for male emergency workers, with no provision for separate showers for female workers; the routing required freshly showered individuals to go outside without adequate clothing prior to remonitoring; and provisions had not been made to clothe emergency workers following decontamination.

## BEAVER TOWNSHIP EOC

Objective 1, the ability to monitor, understand and use emergency classification levels (ECLs) through the appropriate implementation of emergency functions and activities corresponding to ECLs as required by the scenario, was adequately demonstrated by the Emergency Management Coordinator (EMC) and staff.

Objective 2, the ability to fully alert, mobilize and activate EOC personnel, was adequately demonstrated. All EOC positions were staffed within 1 1/2 hours after receipt of initial notification. The Board of Supervisors also participated.

Objective 3, the ability to direct, coordinate and control emergency activities was adequately demonstrated, although overall management of the EOC would have been enhanced by periodic staff briefings.

Objective 4, the ability to communicate with all appropriate locations, organizations, and field personnel was adequately demonstrated. The capability for communicating with the county EOC was fully demonstrated, but no radios were available for communicating with the Traffic Control Posts.

Objective 5, the Township EOC provided adequate facilities, equipment, displays and other materials to support emergency operations. The EOC provided ample space, but it is recommended that a separate work area be provided for communications to avoid distracting the operations staff.

Objective 6, the ability to continuously monitor and control emergency worker exposure was adequately demonstrated. All required equipment and supplies were available, and the Radiological Officer provided excellent instructions to the emergency workers. Those interviewed demonstrated adequate knowledge of exposure control procedures.

Objective 12, the ability to initially alert the public within the 10-mile EPZ and begin dissemination of an instructional message within 15 minutes of a decision, was demonstrated by Township officials, as required by the plan and objective. Two route alert teams were dispatched, and demonstrated appropriate procedures.

Objective 16, the ability to make the decision to recommend the use of KI to emergency workers and institutionalized persons based on predetermined criteria, as well as to distribute and administer it once the decision is made, if necessitated by radioiodine releases, was demonstrated at the township, to the extent required by the plan and scenario events. The EOC had a sufficient supply of KI and the Radiological Officer properly

instructed emergency workers regarding procedures for its use.

Objective 18, the ability and resources necessary to implement appropriate protective actions for the impacted permanent and transient plume EPZ population (including transit-dependent persons, special needs populations, handicapped persons and institutionalized persons) was adequately demonstrated. Those needing assistance had been identified, and arrangements for appropriate vehicles were properly coordinated with the County EOC.

Objective 20, the organizational ability and resources necessary to control evacuation traffic flow and to control access to evacuated and sheltered areas was adequately demonstrated, to the extent required by the plan and objective. As identified under Objective 4, radios were not available for communicating with TCP personnel, so messengers were needed to maintain contact. The TCP personnel were thoroughly knowledgeable of their duties.

Objective 36, the capability to respond to an unannounced exercise was adequately demonstrated.



## BERWICK BOROUGH EOC

Objective 1, the ability to monitor, understand and use emergency classification levels (ECLs) through the appropriate implementation of emergency functions and activities corresponding to ECLs as required by the scenario, was adequately demonstrated by the Emergency Management Coordinator (EMC) and staff.

Objective 2, the ability to fully alert, mobilize and activate EOC personnel was adequately demonstrated. EOC positions were staffed promptly, and participants included a Council member.

Objective 3, the ability to direct, coordinate and control emergency activities was adequately demonstrated. The EMC demonstrated professional leadership, and the staff were fully supportive in meeting their responsibilities. Berwick also assisted Columbia County EOC by activating route alert teams for Briar Creek Borough, where officials did not participate.

Objective 4, the ability to communicate with all appropriate locations, organizations, and field personnel was adequately demonstrated, although additional hand held radios, that were reported as an unmet need, should be provided for more effective implementation and control of traffic control personnel.

Objective 5, the Borough EOC provided adequate facilities, equipment, displays and other materials to support emergency operations.

Objective 6, the ability to continuously monitor and control emergency worker exposure was adequately demonstrated. All required equipment and supplies were available, and the Radiological Officer demonstrated the distribution procedure and provided complete instructions to the emergency workers.

Objective 12, the ability to initially alert the public within the 10-mile EPZ and begin dissemination of an instructional message within 15 minutes of a decision was adequately demonstrated by Borough officials, to the extent required by the plan and objective. Route alert teams were activated for all five of Berwick's routes, as well as for the Briar Creek Borough routes (see Objective 3.).

Objective 18, the ability to make the decision to recommend the use of KI to emergency workers and institutionalized persons based on predetermined criteria, as well as to distribute and administer it once the decision is made, if necessitated by radiiodine releases, was adequately demonstrated at the EOC, to the extent required by the plan and scenario events. The EOC had a sufficient supply of KI and the Radiological Officer had the proper knowledge regarding procedures for its use.

Objective 18, the ability and resources necessary to implement appropriate protective actions for the impacted permanent and transient plume EPZ population (including transit-dependent persons, special needs populations, handicapped persons and institutionalized persons) was adequately demonstrated. Those needing assistance had been identified, and arrangements for appropriate vehicles were properly coordinated with the County EOC. The staff also made arrangements for evacuating three non-ambulatory Briar Creek Borough residents (see Objective 3).

Objective 20, the organizational ability and resources necessary to control evacuation traffic flow and to control access to evacuated and sheltered areas was adequately demonstrated, to the extent required by the plan and objective. The staff demonstrated the activation of all TCPs (one was actually manned) and responded to a simulated impediment. As identified under Objective 4., additional radios would benefit communications with TCP personnel.

Objective 36, the capability to respond to an unannounced exercise was adequately demonstrated.

## BRIAR CREEK BOROUGH EOC

Objective 1, the ability to monitor, understand and use emergency classification levels (ECLs) through the appropriate implementation of emergency functions and activities corresponding to ECLs as required by the scenario was not demonstrated by the Borough EMC and staff. The relevant functions and activities were not performed in accordance with the emergency plan.

Objective 2, the ability to fully alert, mobilize and activate EOC personnel was not demonstrated. The relevant functions and activities were not performed in accordance with the emergency plan.

Objective 3, the ability to direct, coordinate and control emergency activities was not demonstrated by the Borough EMC and staff. The relevant functions and activities were not performed in accordance with the emergency plan.

Objective 4, the ability to communicate with all appropriate locations, organizations, and field personnel was not demonstrated. The relevant functions and activities were not performed in accordance with the emergency plan.

Objective 5, the facilities, equipment, displays and other materials to support emergency operations were not adequately demonstrated.

Objective 6, the ability to continuously monitor and control exposure of Borough emergency workers was not demonstrated. The relevant functions and activities were not performed in accordance with the emergency plan.

Objective 12, appropriate measures to initially alert the public within the 10-mile EPZ and begin dissemination of an instructional message within 15 minutes of a decision were not demonstrated by Borough officials at the EOC. The relevant functions and activities were not performed in accordance with the emergency plan.

Objective 16, the ability to make the decision to recommend the use of KI to emergency workers and institutionalized persons based on predetermined criteria, as well as to distribute and administer it once the decision is made, if necessitated by radiiodine releases, was not demonstrated. The relevant functions and activities were not performed in accordance with the emergency plan.

Objective 18, the ability and resources necessary to implement appropriate protective actions for the impacted permanent and transient plume EPZ population (including transit-dependent



persons, special needs populations, handicapped persons and institutionalized persons) was not demonstrated. The relevant functions and activities were not performed in accordance with the emergency plan.

Objective 36, the capability to respond to an unannounced exercise was not demonstrated by the Borough EMC and staff. The relevant functions and activities were not performed in accordance with the emergency plan.

(Note- the capability for performing Objectives 1, 2, 3, 4, 5, 6, 12, 16, 18 and 36, to the extent required by the emergency plans, was demonstrated during a remedial exercise. An evaluation of the remedial exercise is included as Appendix Three to this report.)

## BRIAR CREEK TOWNSHIP EOC

Objective 1, the ability to monitor, understand and use emergency classification levels (ECLs) through the appropriate implementation of emergency functions and activities corresponding to ECLs as required by the scenario, was adequately demonstrated. The relevant functions and activities were performed in accordance with the emergency plan.

Objective 2, the ability to fully alert, mobilize and activate essential EOC personnel, was adequately demonstrated. However, the Public Information Officer position was not staffed, nor were the duties assigned to another staff member.

Objective 3, the ability to direct, coordinate and control emergency activities was adequately demonstrated by the Emergency Management Coordinator (EMC) and staff. Appropriate actions were implemented in a timely manner.

Objective 4, the ability to communicate with all appropriate locations, organizations, and field personnel, was adequately demonstrated. In addition to the Township radio systems, two TACER operators provided backup radio capability.

Objective 5, the Township EOC provided adequate facilities, equipment, displays and other materials to support emergency operations.

Objective 6, the ability to continuously monitor and control emergency worker exposure was adequately demonstrated. All required equipment and supplies were available, and pre-packaged kits for all individual workers were distributed. The Fire/Rescue and Radiological Officers both briefed all personnel, and provided complete instructions.

Objective 10, appropriate measures to initially alert the public within the 10-mile EPZ and begin dissemination of an instructional message within 15 minutes of a decision were adequately demonstrated by Township officials, to the extent required by the plan. All four of the Township's alerting routes were demonstrated. Each vehicle had at least two personnel, and all appropriate equipment and supplies, including lists of mobility-impaired residents.

Objective 16, the ability to make the decision to recommend the use of KI to emergency workers and institutionalized persons based on predetermined criteria, as well as to distribute and administer it once the decision is made, if necessitated by radiiodine releases, was adequately demonstrated at the County EOC to the extent required by the plan and scenario events. The EOC had a sufficient supply of KI and the Radiological officer had the proper knowledge regarding procedures for its use.

Objective 18, the ability and resources necessary to implement appropriate protective actions for the impacted permanent and transient plume EPZ population (including transit-dependent persons, special needs populations, handicapped persons and institutionalized persons), was adequately demonstrated. Those needing assistance had been identified, and arrangements for appropriate vehicles were properly coordinated with the County EOC.

Objective 20, the organizational ability and resources necessary to control evacuation traffic flow and to control access to evacuated and sheltered areas was not adequately demonstrated. Although the plan identifies the Township as responsible for manning three TCPs, sufficient personnel were not available, and the police services officer requested and received State Police assistance, via the County EOC.

Objective 36, the capability to respond to an unannounced exercise was adequately demonstrated.



## FISHING CREEK TOWNSHIP EOC

Objective 1, the ability to monitor, understand and use emergency classification levels (ECLs) through the appropriate implementation of emergency functions and activities corresponding to ECLs as required by the scenario was demonstrated. The relevant functions and activities were performed in accordance with the emergency plan.

Objective 2, the ability to fully alert, mobilize and activate EOC personnel, was adequately demonstrated. The staff activation was timely and effective.

Objective 3, the ability to direct, coordinate and control emergency activities was fully demonstrated by the EMC and staff.

Objective 4, the ability to communicate with all appropriate locations, organizations, and field personnel was adequately demonstrated. Primary and backup systems operated properly.

Objective 5, the Township EOC provided adequate facilities, equipment, displays and other materials to support emergency operations.

Objective 6, the ability to continuously monitor and control emergency worker exposure was adequately demonstrated. Adequate TLDs, dosimeters, and related equipment were available, and procedures were expertly explained by the Radiological Officer.

Objective 12, appropriate measures to initially alert the public within the 10-mile EPZ and begin dissemination of an instructional message within 15 minutes of a decision were adequately demonstrated by Township officials, to the extent required by the plan.

Objective 16, the ability to make the decision to recommend the use of KI to emergency workers and institutionalized persons based on predetermined criteria, as well as to distribute and administer it once the decision is made, if necessitated by radioiodine releases, was adequately demonstrated at the Township EOC to the extent required by the plan and scenario events. The EOC had an adequate KI supply, and emergency workers were briefed concerning the procedures and authority for its use.

Objective 18, the ability and resources necessary to implement appropriate protective actions for the impacted permanent and transient plume EPZ population (including transit-dependent persons, special needs populations, handicapped persons and institutionalized persons), was adequately demonstrated. Vehicle needs were identified, based on updated lists, and were coordinated with the County EOC.

Objective 20, the organizational ability and resources necessary to control evacuation traffic flow and to control access to evacuated and sheltered areas, was adequately demonstrated. Two TCPs were manned.

Objective 36, the capability to respond to an unannounced exercise was adequately demonstrated. Staff response time was prompt.

## MIFFLIN TOWNSHIP EOC

Objective 1, the ability to monitor, understand and use emergency classification levels (ECLs) through the appropriate implementation of emergency functions and activities corresponding to ECLs as required by the scenario was adequately demonstrated. The relevant functions and activities were performed in accordance with the emergency plan.

Objective 2, the ability to fully alert, mobilize and activate EOC personnel was adequately demonstrated. The plan should be updated to reflect staff personnel changes.

Objective 3, the ability to direct, coordinate and control emergency activities was adequately demonstrated by the Deputy EMC and his staff.

Objective 4, the ability to communicate with all appropriate locations, organizations, and field personnel was adequately demonstrated.

Objective 5, the Township EOC provided adequate facilities, equipment, displays and other materials to support emergency operations.

Objective 6, the ability to continuously monitor and control emergency worker exposure, was adequately demonstrated. Adequate TLDs, dosimeters, and related equipment were available, and emergency workers received appropriate instructions.

Objective 12, appropriate measures to initially alert the public within the 10-mile EPZ and begin dissemination of an instructional message within 15 minutes of a decision, were adequately demonstrated by Township officials, to the extent required by the plan. Route alert vehicles were dispatched as directed by the County EOC.

Objective 16, the ability to make the decision to recommend the use of KI to emergency workers and institutionalized persons based on predetermined criteria, as well as to distribute and administer it once the decision is made, if necessitated by radiiodine releases, was adequately demonstrated at the Township EOC to the extent required by the plan and scenario events.

Objective 18, the ability and resources necessary to implement appropriate protective actions for the impacted permanent and transient plume EPZ population (including transit-dependent persons, special needs populations, handicapped persons and institutionalized persons) was adequately demonstrated. Vehicle needs were identified, based on updated lists, and were coordinated with the County EOC.



Objective 20, the organizational ability and resources necessary to control evacuation traffic flow and to control access to evacuated and sheltered areas was adequately demonstrated. Two TCPs were activated.

Objective 36, the capability to respond to an unannounced exercise was adequately demonstrated.

## NORTH CENTRE TOWNSHIP EOC

Objective 1, the ability to monitor, understand and use emergency classification levels (ECLs) through the appropriate implementation of emergency functions and activities corresponding to ECLs as required by the scenario, was adequately demonstrated. The relevant functions and activities were performed in accordance with the emergency plan.

Objective 2, the ability to fully alert, mobilize and activate EOC personnel was adequately demonstrated with the exception of the Public Works position, which was not filled.

Objective 3, the ability to direct, coordinate and control emergency activities was adequately demonstrated. The EMC demonstrated effective leadership, and the staff were knowledgeable and performed their tasks fully.

Objective 4, the ability to communicate with all appropriate locations, organizations, and field personnel was adequately demonstrated.

Objective 5, the Township EOC provided adequate facilities, equipment, displays and other materials to support emergency operations, but it lacked running water and, more importantly, a source of backup electrical power.

Objective 6, the ability to continuously monitor and control emergency worker exposure was adequately demonstrated. Sufficient exposure control equipment was available, and emergency workers were properly instructed regarding procedures.

Objective 12, appropriate measures to initially alert the public within the 10-mile EPZ and begin dissemination of an instructional message within 15 minutes of a decision were adequately demonstrated by Township officials, to the extent required by the plan. The Route alert team was properly activated and had appropriate accouterments.

Objective 16, the ability to make the decision to recommend the use of KI to emergency workers and institutionalized persons based on predetermined criteria, as well as to distribute and administer it once the decision is made, if necessitated by radiiodine releases, was adequately demonstrated at the Township EOC to the extent required by the plan. A sufficient supply of KI was available, and officials demonstrated thorough knowledge of the procedures for its use.

Objective 18, the ability and resources necessary to implement appropriate protective actions for the impacted permanent and transient plume EPZ population (including transit-dependent persons, special needs populations, handicapped persons and

institutionalized persons), was adequately demonstrated. Vehicle needs were identified, and their availability was confirmed with the County EOC.

Objective 20, the organizational ability and resources necessary to control evacuation traffic flow and to control access to evacuated and sheltered areas was not adequately demonstrated. Although the plan identifies the Township as responsible for manning one TCP, sufficient personnel were not available.

Objective 36, the capability to respond to an unannounced exercise was adequately demonstrated. The staff were activated and responded in a timely manner.



## SOUTH CENTRE TOWNSHIP EOC

Objective 1, the ability to monitor, understand and use emergency classification levels (ECLs) through the appropriate implementation of emergency functions and activities corresponding to ECLs as required by the scenario, was adequately demonstrated. The relevant functions and activities were performed in accordance with the emergency plan.

Objective 2, the ability to fully alert, mobilize and activate EOC personnel was adequately demonstrated. EOC positions were double staffed.

Objective 3, the ability to direct, coordinate and control emergency activities was adequately demonstrated by the EOC and staff. The emergency plan used was not as recent as that submitted by PENA for the Township.

Objective 4, the ability to communicate with all appropriate locations, organizations, and field personnel was adequately demonstrated.

Objective 5, the Township EOC provided very good facilities, equipment, displays and other materials to support emergency operations.

Objective 6, the ability to continuously monitor and control emergency worker exposure was adequately demonstrated. Sufficient exposure control equipment was available, and emergency workers were properly instructed regarding procedures.

Objective 7, appropriate measures to initially alert the public within the 10-mile EPZ and begin dissemination of an instructional message within 15 minutes of a decision were adequately demonstrated by Township officials, to the extent required by the plan. Two route alert teams were properly dispatched.

Objective 16, the ability to make the decision to recommend the use of KI to emergency workers and institutionalized persons based on predetermined criteria, as well as to distribute and administer it once the decision is made, if necessitated by radiiodine releases, was adequately demonstrated at the Township EOC to the extent required by the plan and scenario events. A sufficient supply of KI was available, and officials demonstrated adequate knowledge concerning the procedures for its use.

Objective 18, the ability and resources necessary to implement appropriate protective actions for the impacted permanent and transient plume EPZ population (including transit-dependent persons, special needs populations, handicapped persons and

institutionalized persons), was adequately demonstrated.

Objective 20, the organizational ability and resources necessary to control evacuation traffic flow and to control access to evacuated and sheltered areas, was adequately demonstrated. One TCP was activated.

Objective 36, the capability to respond to an unannounced exercise was adequately demonstrated.

## LUZERNE COUNTY EOC

Objective 1, the ability to monitor, understand and use emergency classification levels through the appropriate implementation of emergency functions and activities corresponding to the ECLs as required by the scenario, was adequately demonstrated.

Objective 2, the ability to fully alert, mobilize and activate personnel for both facility and field-based emergency functions was adequately demonstrated. All County EOC staff positions were manned, and in most cases the positions were double staffed. Two State level liaison officers did not participate at the County EOC: Pennsylvania Department of Transportation and the Pennsylvania National Guard (see plan pages E-19, E-20, E-27).

Objective 3, the ability to direct, coordinate and control emergency activities was effectively demonstrated by the Luzerne County Emergency Management Coordinator and the EOC staff. All personnel were well prepared and thoroughly performed their assigned tasks with a minimum of simulation. Discussions were held among the staff, and verification of information and answers to questions raised were requested from the Pennsylvania Emergency Management Agency (PEMA). The Coordinator and staff competently coordinated the Alert and Notification activation (simulated) with counterparts in Columbia County, thereby assuring simultaneous activation in both risk counties. The message handling system was well managed and all requests for assistance were tracked to completion.

Objective 4, the ability to communicate with all appropriate locations, organizations, and field personnel was demonstrated in an outstanding manner. The EOC has an emergency management system which allows for simultaneous vocal broadcast to all municipalities. In addition, the County has recently installed a radio facsimile capability which permits the County to send a hard copy verification to all municipalities. This system was used effectively throughout the exercise to provide municipal EOCs with hard copy of all priority messages.

Objective 5, the facilities, equipment, displays and other materials to support emergency operations were adequately demonstrated.

Objective 6, the ability to continuously monitor and control emergency worker exposure was adequately met. This EOC is not within the 10-mile EPZ, however, 600 dosimetry kits have been pre-packaged and are available in the EOC in case they are needed. The Radiological Officer displayed an excellent understanding of the plans and procedures.

Objective 12, the ability to initially alert the public within the 10-mile EPZ and begin dissemination of an instructional



message within 15 minutes of a decision by appropriate State officials, was adequately demonstrated. As noted under Objective 3, County officials effectively coordinated with Columbia County the siren and EBS activations, which occurred at the designated time. EBS message content, however, was not sufficient. PEMA provided instructions concerning EBS message content to the county EOCs, and Luzerne County officials used that message verbatim. Consequently, the message did not include sufficient information concerning evacuation area boundaries and instructions on where to go and what to take, etc. The appropriate information, however, has been pre-scripted and included in the County plans in Appendix 4.

Objective 13, the ability to coordinate the formulation and dissemination of accurate information and instructions to the public in a timely fashion after the initial alert and notification has occurred, was adequately demonstrated. The Agriculture Agent prepared two news releases to provide instructions to the farmers to shelter livestock and place them on stored feed. These messages have not been prescribed and included in Appendix 4 of the County plan.

Objective 14, the ability to brief the media in an accurate, coordinated and timely manner was adequately demonstrated. An actual press briefing was given even though no members of the press showed up at the EOC.

Objective 15, the ability to establish and operate rumor control in a coordinated and timely fashion was adequately demonstrated.

Objective 16, the ability to make the decision to recommend the use of KI to emergency workers based on predetermined criteria, as well as to distribute and administer it once the decision is made, was adequately demonstrated.

Objective 18, the ability to implement appropriate protective actions for the impacted permanent and transient population was effectively demonstrated. All bus companies were actually notified at the Alert stage and placed on standby as were all hospitals, nursing homes, ambulances, police departments, and fire departments. Traffic and access control points and route alerting were activated in a prompt and efficient manner. The staff actively filled all requests for unmet needs from the municipalities, mass care centers, and decontamination stations to include the actual assignment of busses, ambulances, personnel, and other needed equipment. Only the physical deployment of these unmet needs was simulated. All EOC staff members should be commended for the manner in which this objective was demonstrated at Luzerne County.

Objective 36, the ability to conduct an unannounced exercise was adequately demonstrated.

## LUZERNE COUNTY RECEPTION AND MASS CARE CENTERS

Objective 4, the ability to communicate with all appropriate locations, organizations and field personnel was adequately demonstrated at both the reception and mass care centers.

Objective 6, the ability to continuously monitor and control emergency worker exposure was adequately demonstrated by the radiological monitoring teams at the mass care center.

Objective 21, the procedures, facilities, equipment and personnel for the registration of evacuees were adequately demonstrated. The reception center is used to direct evacuees to appropriate mass care centers where monitoring, decontamination and housing are provided.

Objective 22, the adequacy of facilities, equipment and personnel for congregate care of evacuees was adequately demonstrated. Monitoring and decontamination of evacuees was conducted by a team of 15 monitors from the Avoca Fire Department. A large staff of 25 Red Cross Personnel supported the mass care functions. The entire staff were knowledgeable and performed their assigned tasks in an efficient, professional manner.

## LUZERNE COUNTY EMERGENCY WORKER DECONTAMINATION STATION

Objective 2, the ability to fully alert, mobilize and activate personnel for both facility and field-based emergency functions was adequately demonstrated. A staff of 20 monitors participated in the exercise and handled all assignments effectively.

Objective 4, the ability to communicate with all appropriate locations, organizations, and field personnel was adequately demonstrated.

Objective 6, the ability to continuously monitor and control emergency worker exposure was adequately demonstrated.

Objective 25, the facilities, equipment, supplies, procedures and personnel for decontamination of emergency workers, equipment and vehicles were adequately demonstrated. The staff, even though participating in their first exercise, demonstrated an excellent understanding of decontamination requirements.



## LUZERNE COUNTY MEDICAL SERVICES DEMONSTRATION

Objective 4, the ability to communicate with all appropriate locations, organizations, and field personnel was adequately demonstrated.

Objective 6, the ability to continuously monitor and control emergency worker exposure was adequately demonstrated; however, the paper that was used to line the ambulance ripped. The ambulance crew would benefit from some additional training in the proper removal of protective clothing.

Objective 23, the vehicles, equipment, procedures and personnel for transporting contaminated, injured or exposed individuals was adequately demonstrated.

Objective 24, the medical facility's equipment, procedures and personnel for handling contaminated, injured or exposed individuals was adequately demonstrated. In general the Geisinger Medical Center staff were very thorough and had sincere interest in demonstrating their capabilities. Some additional steps are needed to limit the spread of contamination and to control emergency worker exposure.

## BLACK CREEK TOWNSHIP EOC

Objective 1, the ability to monitor, understand and use emergency classification levels (ECL) through the appropriate implementation of emergency functions and activities corresponding to ECLs as required by the scenario, was adequately demonstrated.

Objective 2, the ability to fully alert, mobilize and activate personnel for both facility and field-based emergency functions was adequately demonstrated. All personnel have been cross-trained to perform all necessary duties.

Objective 3, the ability to direct, coordinate and control emergency activities was adequately demonstrated.

Objective 4, the ability to communicate with all appropriate locations, organizations, and field personnel was adequately demonstrated.

Objective 5, facilities, equipment, displays and other materials to support emergency operations was adequately demonstrated.

Objective 6, the ability to continuously monitor and control emergency worker exposure was adequately demonstrated.

Objective 12, the ability to initially alert the public within the 10-mile EPZ and begin dissemination of an instructional message within 15 minutes of a decision by appropriate State and/or local officials, was adequately demonstrated. Route alerting for the hearing impaired was performed satisfactorily as was back-up route alerting for a siren failure.

Objective 16, the ability to make the decision to recommend the use of KI to emergency workers based on predetermined criteria as well as to distribute and administer it once the decision is made, was adequately demonstrated.

Objective 18, the ability and resources necessary to implement appropriate protective actions for the impacted permanent and transient plume EPZ population, was adequately demonstrated. The Medical Officer demonstrated initiative and resourcefulness in providing transportation information on a new nursing home in the EPZ. He also presented a list of hospitals for special needs populations and one for treatment of contaminated persons. He informed the EMC of a seasonal group of non-english speaking persons in the Township.

Objective 20, the organizational ability and resources necessary to control evacuation traffic flow and to control access to evacuated and sheltered areas, was adequately demonstrated.

Objective 36, the ability to conduct an unannounced exercise was adequately demonstrated.



## BUTLER TOWNSHIP EOC

Objective 1, the ability to monitor, understand and use emergency classification levels (ECL) through the appropriate implementation of emergency functions and activities corresponding to ECLs as required by the scenario, was adequately demonstrated.

Objective 2, the ability to fully alert, mobilize and activate personnel for both facility and field-based emergency functions was adequately demonstrated.

Objective 3, the ability to direct, coordinate and control emergency activities was adequately demonstrated. However, incoming messages were not logged and numbered, in accordance with the plan (Attachment C-2). The staff concluded that this was unnecessary, as the EOC also received hard copy of all important messages. All incoming and outgoing messages, both verbal and hard copy, should be logged and numbered.

Objective 4, the ability to communicate with all appropriate locations, organizations, and field personnel, was adequately demonstrated.

Objective 5, facilities, equipment, displays and other materials to support emergency operations was adequately demonstrated. The EOC is presently located in the Township building, however, there are plans to move to the second floor of the fire station which will afford additional space, kitchen facilities and a stationary backup power supply. The fire station is located outside the 10-mile EPZ.

Objective 6, the ability to continuously monitor and control emergency worker exposure was adequately demonstrated.

Objective 12, the ability to initially alert the public within the 10-mile EPZ and begin dissemination of an instructional message within 15 minutes of a decision by appropriate State and/or local officials, was adequately demonstrated.

Objective 16, the ability to make the decision to recommend the use of KI to emergency workers based on predetermined criteria as well as to distribute and administer it once the decision is made was adequately demonstrated.

Objective 18, the ability and resources necessary to implement appropriate protective actions for the impacted permanent and transient plume EPZ population, was adequately demonstrated. There were five non-ambulatory persons living in the EPZ. The ambulance crew actually went by each of the five residences.

Objective 20, the organizational ability and resources necessary to control evacuation traffic flow and to control access to evacuated and sheltered areas, was adequately demonstrated. However, the officers should receive additional training as to the destination (location of reception and mass care centers) for Township evacuees.

Objective 36, the ability to conduct an unannounced exercise was adequately demonstrated.

## CONYNGHAM BOROUGH EOC

Objective 1, the ability to monitor, understand and use emergency classification levels (ECL) through the appropriate implementation of emergency functions and activities corresponding to ECLs as required by the scenario, was adequately demonstrated.

Objective 2, the ability to fully alert, mobilize and activate personnel for both facility and field-based emergency functions, was adequately demonstrated.

Objective 3, the ability to direct, coordinate and control emergency activities was adequately demonstrated. However, the events/status log displayed on the EOC wall reflected the time that events occurred or were declared, rather than received. It is recommended that the Borough distinguish actual times of events from the times the EOC receives communications about the events, so as to enhance local tracking of the status of emergency operations.

Objective 4, the ability to communicate with all appropriate locations, organizations, and field personnel, was adequately demonstrated.

Objective 5, adequate facilities, equipment, displays and other materials to support emergency operations, was effectively demonstrated.

Objective 6, the ability to continuously monitor and control emergency worker exposure, was adequately demonstrated.

Objective 12, the ability to initially alert the public within the 10-mile EPZ and begin dissemination of an instructional message within 15 minutes of a decision by appropriate State and/or local officials, was adequately demonstrated as applicable to municipal responsibilities. One route alert team was actually dispatched and concluded its route in 17 minutes.

Objective 16, the ability to make the decision to recommend the use of KI to emergency workers based on predetermined criteria as well as to distribute and administer it once the decision is made, was adequately demonstrated as applicable to municipal responsibilities. The EOC, which had an adequate supply of KI on hand, properly waited for State Health Secretary's recommendation (which arrived through the County at 2037) prior to ordering its emergency workers to ingest the thyroid blocking agent.

Objective 18, the ability and resources necessary to implement appropriate protective actions for the impacted permanent and transient plume EPZ population, was adequately demonstrated.



Objective 20, the organizational ability and resources necessary to control evacuation traffic flow and to control access to evacuated and sheltered areas as applicable to municipal responsibilities, was not adequately demonstrated. The municipal plan (Attachment D-2) designates 7 traffic control points (TCPs) to be manned by Borough personnel. However, none of the TCPs were manned, (or simulated), and the TCP personnel were not alerted. In fact, there was no discussion or activity regarding this Borough responsibility until the FEMA evaluator specifically questioned the EMC.

Objective 36, the ability to promptly notify emergency response staff and activate the EOC in a timely manner during an unannounced exercise, was adequately demonstrated.

## CONYNGHAM TOWNSHIP EOC

Objective 1, the ability to monitor, understand and use emergency classification levels (ECL) through the appropriate implementation of emergency functions and activities corresponding to ECLs as required by the scenario, was adequately demonstrated.

Objective 2, the ability to fully alert, mobilize and activate personnel for both facility and field-based emergency functions, was adequately demonstrated.

Objective 3, the ability to direct, coordinate and control emergency activities, was adequately demonstrated. One minor problem was observed, however, with regard to the Township plans. Within the last year, the Township has relocated its EOC from the Mocaqua Volunteer Fire Hall to the Township Building on Main Street. Current plan copies do not reflect this change, and should be modified as necessary. (See page A-1 of the Township SOPs.)

Objective 4, the ability to communicate with all appropriate locations, organizations, and field personnel, was adequately demonstrated. All communication equipment performed well with the exception of the RACES radio, which malfunctioned. However, RACES is only one of several backup communications; its failure did not have negative impact on Township emergency operations during the exercise.

Objective 5, the adequacy of facilities, equipment, displays and other materials to support emergency operations, was effectively demonstrated.

Objective 6, the ability to continuously monitor and control emergency worker exposure, was adequately demonstrated.

Objective 12, the ability to initially alert the public within the 10-mile EPZ and begin dissemination of an instructional message within 15 minutes of a decision by appropriate State and/or local officials, was adequately demonstrated as applicable to municipal responsibilities.

Objective 16, the ability to make the decision to recommend the use of KI to emergency workers based on predetermined criteria as well as to distribute and administer it once the decision is made, was adequately demonstrated as applicable to municipal responsibilities.

Objective 18, the ability and resources necessary to implement appropriate protective actions for the impacted permanent and transient plume EPZ population, was adequately demonstrated. However, the list of non-ambulatory residents requiring ambulance

assistance, maintained in the Township plans and EOC (page 6 of the Township Notification and Resource Manual), dates back to March of 1988, and has not been updated within the last 6 months as required by SOP F (page F-5).

Objective 20, the organizational ability and resources necessary to control evacuation traffic flow and to control access to evacuated and sheltered areas as applicable to municipal responsibilities, was not adequately demonstrated. The plan (Attachment D-2) specifies that the Township is responsible for the manning of one traffic control point, but this was not demonstrated. In fact, no observable exercise play or discussion regarding the Township's traffic control responsibility occurred.

Objective 36, the ability to promptly notify emergency response staff and activate the EOC in a timely manner during an unannounced exercise, was adequately demonstrated.



## DORRANCE TOWNSHIP EOC

Objective 1, the ability to monitor, understand and use emergency classification levels (ECL) through the appropriate implementation of emergency functions and activities corresponding to ECLs as required by the scenario, was adequately demonstrated.

Objective 2, the ability to fully alert, mobilize and activate personnel for both facility and field-based emergency functions, was adequately demonstrated.

Objective 3, the ability to direct, coordinate and control emergency activities, was adequately demonstrated. During the exercise a real time emergency mandated the dispatching of one ambulance. The EOC effectively responded to this real emergency, and incorporated the event into the exercise by requesting an additional ambulance unit from the County.

Objective 4, the ability to communicate with all appropriate locations, organizations, and field personnel, was adequately demonstrated. The Township communication processes during the exercise were excellent.

Objective 5, the adequacy of facilities, equipment, displays and other materials to support emergency operations, was effectively demonstrated. Blankets and cots, which are called for in the Township plans but not available in the EOC, were requested from the County as an unmet need.

Objective 6, the ability to continuously monitor and control emergency worker exposure, was adequately demonstrated.

Objective 12, the ability to initially alert the public within the 10-mile EPZ and begin dissemination of an instructional message within 15 minutes of a decision by appropriate State and/or local officials, was adequately demonstrated as applicable to municipal responsibilities. Two route alert teams were actually dispatched, and successfully completed their routes in a reasonable amount of time. Both teams were provided maps listing the locations of special needs residents and hearing impaired individuals along their routes.

Objective 16, the ability to make the decision to recommend the use of KI to emergency workers based on predetermined criteria as well as to distribute and administer it once the decision is made, was adequately demonstrated as applicable to municipal responsibilities.

Objective 18, the ability and resources necessary to implement appropriate protective actions for the impacted permanent and transient plume EPZ population, was adequately demonstrated.

Objective 20, the organizational ability and resources necessary to control evacuation traffic flow and to control access to evacuated and sheltered areas as applicable to municipal responsibilities, was adequately demonstrated by the actual manning of four traffic control points.

Objective 36, the ability to promptly notify emergency response staff and activate the EOC in a timely manner during an unannounced exercise, was adequately demonstrated.

## HOLLENBACK TOWNSHIP EOC

Objective 1, the ability to monitor, understand and use emergency classification levels (ECL) through the appropriate implementation of emergency functions and activities corresponding to ECLs as required by the scenario was adequately demonstrated.

Objective 2, the ability to fully alert, mobilize and activate personnel for both facility and field-based emergency functions was adequately demonstrated.

Objective 3, the ability to direct, coordinate and control emergency activities was adequately demonstrated. Many verbal instructions received from the County were not written down.

Objective 4, the ability to communicate with all appropriate locations, organizations, and field personnel was adequately demonstrated. The County radio net worked well for the most part with one hitch, that being the hard copy skipped a line causing some confusion about whether to dispatch the route alert teams. However, this was verified by the EMC before action was taken and, therefore, no problem resulted.

Objective 5, facilities, equipment, displays and other materials to support emergency operations was adequately demonstrated. There was no large map of the EPZ, which would enhance EOC operations.

Objective 6, the ability to continuously monitor and control emergency worker exposure was adequately demonstrated.

Objective 12, the ability to initially alert the public within the 10-mile EPZ and begin dissemination of an instructional message within 15 minutes of a decision by appropriate State and/or local officials, was adequately demonstrated. Four route alert teams were actually dispatched. They should be commended for their excellent participation during the exercise.

Objective 16, the ability to make the decision to recommend the use of KI to emergency workers based on predetermined criteria as well as to distribute and administer it once the decision is made was adequately demonstrated.

Objective 18, the ability and resources necessary to implement appropriate protective actions for the impacted permanent and transient plume EPZ population, was adequately demonstrated. There are only two hearing-impaired individuals in the Township, one of which is a young child in the care of her parents. The route alert teams actually went to the residents of these two individuals.



Objective 20, the organizational ability and resources necessary to control evacuation traffic flow and to control access to evacuated and sheltered areas, was adequately demonstrated.

Objective 36, the ability to conduct an unannounced exercise was adequately demonstrated.

## HUNLOCK TOWNSHIP EOC

Objective 1, the ability to monitor, understand and use emergency classification levels (ECL) through the appropriate implementation of emergency functions and activities corresponding to ECLs as required by the scenario, was adequately demonstrated. Generally the EOC staff was kept abreast of ECL escalations through briefings by the EMC; however, the ECL's were not displayed in the EOC as required by the Township plan (see SOP A.3.2.h, page A-2). As the ECL's literally trigger emergency actions at all response levels, it is recommended that they be prominently displayed in view of the entire staff.

Objective 2, the ability to fully alert, mobilize and activate personnel for both facility and field-based emergency functions, was adequately demonstrated. All key staff members were deployed in the EOC as early as 1645 hours.

Objective 3, the ability to direct, coordinate and control emergency activities, was adequately demonstrated.

Objective 4, the ability to communicate with all appropriate locations, organizations, and field personnel, was adequately demonstrated.

Objective 5, the adequacy of facilities, equipment, displays and other materials to support emergency operations, was effectively demonstrated. However, visual support materials (displays) were minimal. Only one map showing Township roads was displayed, while the status board was not updated with key events and communications in a timely matter. Enhanced displays (such as a plume EPZ area map and /or at least a local map posting TCP's, ACP's, alerting routes, and the decontamination center) would enable the staff to form a broader picture of the emergency, and assist in any needed interactions with other municipalities. (See SOP A.3.2.g, page A-2.) Greater attentiveness to the status board will help to ensure that all staff members are kept abreast of events and emergency status.

Objective 6, the ability to continuously monitor and control emergency worker exposure, was adequately demonstrated.

Objective 12, the ability to initially alert the public within the 10-mile EPZ and begin dissemination of an instructional message within 15 minutes of a decision by appropriate State and/or local officials, was adequately demonstrated as applicable to municipal responsibilities. Three route alert teams were properly briefed, equipped, and dispatched, completing their routes in a timely manner.

Objective 16, the ability to make the decision to recommend the use of KI to emergency workers based on predetermined criteria as

well as to distribute and administer it once the decision is made, was adequately demonstrated as applicable to municipal responsibilities.

Objective 18, the ability and resources necessary to implement appropriate protective actions for the impacted permanent and transient plume EPZ population, was adequately demonstrated.

Objective 20, the organizational ability and resources necessary to control evacuation traffic flow and to control access to evacuated and sheltered areas, was adequately demonstrated. Three traffic control points were actually manned during the exercise by Township personnel.

Objective 36, the ability to conduct an unannounced exercise, was adequately demonstrated.



## HUNTINGTON TOWNSHIP EOC

Objective 1, the ability to monitor, understand and use emergency classification levels (ECL) through the appropriate implementation of emergency functions and activities corresponding to ECLs as required by the scenario, was adequately demonstrated.

Objective 2, the ability to fully alert, mobilize and activate personnel for both facility and field-based emergency functions was adequately demonstrated.

Objective 3, the ability to direct, coordinate and control emergency activities was adequately demonstrated. The entire staff was very knowledgeable and demonstrated that appropriate training had been provided.

Objective 4, the ability to communicate with all appropriate locations, organizations, and field personnel was adequately demonstrated.

Objective 5, facilities, equipment, displays and other materials to support emergency operations was adequately demonstrated.

Objective 6, the ability to continuously monitor and control emergency worker exposure was adequately demonstrated.

Objective 12, the ability to initially alert the public within the 10-mile EPZ and begin dissemination of an instructional message within 15 minutes of a decision by appropriate State and/or local officials, was adequately demonstrated. Backup route alerting was performed in accordance with the plan.

Objective 16, the ability to make the decision to recommend the use of KI to emergency workers based on predetermined criteria as well as to distribute and administer it once the decision is made, was adequately demonstrated.

Objective 18, the ability and resources necessary to implement appropriate protective actions for the impacted permanent and transient plume EPZ population, was adequately demonstrated.

Objective 20, the organizational ability and resources necessary to control evacuation traffic flow and to control access to evacuated and sheltered areas, was adequately demonstrated.

Objective 36, the ability to conduct an unannounced exercise was adequately demonstrated.

## NANTICOKE CITY EOC

Objective 1, the ability to monitor, understand and use emergency classification levels (ECL) through the appropriate implementation of emergency functions and activities corresponding to ECLs as required by the scenario was adequately demonstrated.

Objective 2, the ability to fully alert, mobilize and activate personnel for both facility and field-based emergency functions was adequately demonstrated. The staff list in the plan is not up to date. Personnel for five of the staff positions have been changed.

Objective 3, the ability to direct, coordinate and control emergency activities was adequately demonstrated. The EMC listed in the plan did not participate in the exercise; however the Acting EMC and Deputy EMC performed this job effectively.

Objective 4, the ability to communicate with all appropriate locations, organizations, and field personnel was adequately demonstrated.

Objective 5, facilities, equipment, displays and other materials to support emergency operations, was not adequately demonstrated. The EOC did not have a wall clock or sufficient desks and chairs. In addition, none of the administrative supplies (message forms, paper, maps, etc.) needed to operate an EOC were available.

Objective 6, the ability to continuously monitor and control emergency worker exposure was adequately demonstrated.

Objective 12, the ability to initially alert the public within the 10-mile EPZ and begin dissemination of an instructional message within 15 minutes of a decision by appropriate State and/or local officials, was adequately demonstrated. Route alerting was effectively performed.

Objective 16, the ability to make the decision to recommend the use of KI to emergency workers based on predetermined criteria as well as to distribute and administer it once the decision is made, was adequately demonstrated.

Objective 18, the ability and resources necessary to implement appropriate protective actions for the impacted permanent and transient plume EPZ population, was adequately demonstrated.

Objective 20, the organizational ability and resources necessary to control evacuation traffic flow and to control access to evacuated and sheltered areas, was adequately demonstrated.

Objective 36, the ability to conduct an unannounced exercise was adequately demonstrated.

## NESCOPECK BOROUGH EOC

Objective 1, the ability to monitor, understand and use emergency classification levels (ECL) through the appropriate implementation of emergency functions and activities corresponding to ECLs as required by the scenario, was adequately demonstrated.

Objective 2, the ability to fully alert, mobilize and activate personnel for both facility and field-based emergency functions, was adequately demonstrated.

Objective 3, the ability to direct, coordinate and control emergency activities, was adequately demonstrated. However, no log was maintained to track incoming and outgoing messages. This did not negatively affect emergency operations during the exercise, as the number of messages was limited, while hard copies of the messages were numbered and kept on hand in the EOC. Nonetheless, use of a log is recommended to assure effective control of messages and easy access to specific communications, both necessary for purposes of tracking the status of various emergency functions and unmet needs.

Objective 4, the ability to communicate with all appropriate locations, organizations, and field personnel, was adequately demonstrated. No communication problems were observed in the operation of the primary system, while several backup communication means were available in the EOC.

Objective 5, the adequacy of facilities, equipment, displays and other materials to support emergency operations, was effectively demonstrated.

Objective 7, the ability to continuously monitor and control emergency worker exposure, was adequately demonstrated.

Objective 12, the ability to initially alert the public within the 10-mile EPZ and begin dissemination of an instructional message within 15 minutes of a decision by appropriate State and/or local officials, was adequately demonstrated as applicable to municipal responsibilities.

Objective 16, the ability to make the decision to recommend the use of KI to emergency workers based on predetermined criteria as well as to distribute and administer it once the decision is made, was adequately demonstrated as applicable to municipal responsibilities.

Objective 18, the ability and resources necessary to implement appropriate protective actions for the impacted permanent and transient plume EPZ population (including transit-dependent persons, special needs populations, handicapped persons, and



institutionalized persons), was adequately demonstrated. Actual phone contacts were made with special needs residents to verify the EOC list of addresses, phone numbers, and needs.

Objective 20, the organizational ability and resources necessary to control evacuation traffic flow and to control access to evacuated and sheltered areas, was adequately demonstrated. Three traffic control points were successfully manned by the Borough.

Objective 36, the ability to conduct an unannounced exercise, was adequately demonstrated.

## NESCOPECK TOWNSHIP EOC

Objective 1, the ability to monitor, understand and use emergency classification levels (ECL) through the appropriate implementation of emergency functions and activities corresponding to ECLs as required by the scenario, was adequately demonstrated.

Objective 2, the ability to fully alert, mobilize and activate personnel for both facility and field-based emergency functions, was adequately demonstrated. Many EOC positions were doubled staffed so as to provide training and experience for alternate personnel.

Objective 3, the ability to direct, coordinate and control emergency activities, was adequately demonstrated.

Objective 4, the ability to communicate with all appropriate locations, organizations, and field personnel, was adequately demonstrated. Communications were enhanced by use of a radio/computer link with the County EOC that provided hard copies of all priority messages.

Objective 5, the adequacy of facilities, equipment, displays and other materials to support emergency operations, was effectively demonstrated.

Objective 6, the ability to continuously monitor and control emergency worker exposure, was adequately demonstrated.

Objective 12, the ability to initially alert the public within the 10-mile EPZ and begin dissemination of an instructional message within 15 minutes of a decision by appropriate State and/or local officials, was adequately demonstrated as applicable to municipal responsibilities. The Township dispatched one route alert team which successfully completed its mission in 19 minutes.

Objective 16, the ability to make the decision to recommend the use of KI to emergency workers based on predetermined criteria as well as to distribute and administer it once the decision is made, was adequately demonstrated as applicable to municipal responsibilities.

Objective 18, the ability and resources necessary to implement appropriate protective actions for the impacted permanent and transient plume EPZ population (including transit-dependent persons, special needs populations, handicapped persons, and institutionalized persons), was adequately demonstrated.

Objective 20, the organizational ability and resources necessary to control evacuation traffic flow and to control access to

evacuated and sheltered areas, was adequately demonstrated.

Objective 36, the ability to conduct an unannounced exercise, was adequately demonstrated.



## NEW COLUMBUS BOROUGH EOC

Objective 1, the ability to monitor, understand and use emergency classification levels (ECL) through the appropriate implementation of emergency functions and activities corresponding to ECLs as required by the scenario was adequately demonstrated. However the ECLs were not posted in the EOC.

Objective 2, the ability to fully alert, mobilize and activate personnel for both facility and field-based emergency functions was adequately demonstrated.

Objective 3, the ability to direct, coordinate and control emergency activities was adequately demonstrated. Individual attention was given to each staff member; however, no periodic briefings or status updates were performed.

Objective 4, the ability to communicate with all appropriate locations, organizations, and field personnel was adequately demonstrated.

Objective 5, facilities, equipment, displays and other materials to support emergency operations, was adequately demonstrated.

Objective 6, the ability to continuously monitor and control emergency worker exposure was adequately demonstrated.

Objective 12, the ability to initially alert the public within the 10-mile EPZ and begin dissemination of an instructional message within 15 minutes of a decision by appropriate State and/or local officials, was adequately demonstrated.

Objective 16, the ability to make the decision to recommend the use of KI to emergency workers based on predetermined criteria as well as to distribute and administer it once the decision is made was adequately demonstrated.

Objective 18, the ability and resources necessary to implement appropriate protective actions for the impacted permanent and transient plume EPZ population, was adequately demonstrated.

Objective 20, the organizational ability and resources necessary to control evacuation traffic flow and to control access to evacuated and sheltered areas, was adequately demonstrated.

Objective 36, the ability to conduct an unannounced exercise was adequately demonstrated.

## NEWPORT TOWNSHIP EOC

Objective 1, the ability to monitor, understand and use emergency classification levels (ECL) through the appropriate implementation of emergency functions and activities corresponding to ECLs as required by the scenario, was adequately demonstrated.

Objective 2, the ability to fully alert, mobilize and activate personnel for both facility and field-based emergency functions, was adequately demonstrated.

Objective 3, the ability to direct, coordinate and control emergency activities, was adequately demonstrated.

Objective 4, the ability to communicate with all appropriate locations, organizations, and field personnel, was adequately demonstrated.

Objective 5, the adequacy of facilities, equipment, displays and other materials to support emergency operations, was effectively demonstrated. The EOC did not post an area map illustrating evacuation routes or traffic control points. Although the lack of this map did not have any observable negative impact on emergency operations during the exercise, a map of this nature would enhance EOC wide briefings and direction.

Objective 6, the ability to continuously monitor and control emergency worker exposure, was adequately demonstrated.

Objective 12, the ability to initially alert the public within the 10-mile EPZ and begin dissemination of an instructional message within 15 minutes of a decision by appropriate State and/or local officials, was adequately demonstrated as applicable to municipal responsibilities. One route alert team was properly equipped, briefed, and dispatched, accomplishing its mission well within 45 minutes.

Objective 16, the ability to make the decision to recommend the use of KI to emergency workers based on predetermined criteria as well as to distribute and administer it once the decision is made, was adequately demonstrated as applicable to municipal responsibilities.

Objective 18, the ability and resources necessary to implement appropriate protective actions for the impacted permanent and transient plume EPZ population (including transit-dependent persons, special needs populations, handicapped persons, and institutionalized persons), was adequately demonstrated.

Objective 20, the organizational ability and resources necessary to control evacuation traffic flow and to control access to evacuated and sheltered areas, was adequately demonstrated. The Township successfully manned one traffic control point.

Objective 36, the ability to conduct an unannounced exercise, was adequately demonstrated.



## NUANGOLA BOROUGH EOC

Objective 1, the ability to monitor, understand and use emergency classification levels (ECL) through the appropriate implementation of emergency functions and activities corresponding to ECLs as required by the scenario, was adequately demonstrated. The EMC formally briefed the EOC staff at each escalation, and assured there was no confusion over the "limited and full emergency" terms outlined in the municipal plan. However, the ECLs were not prominently displayed in the EOC. The ECLs were recorded on the status/event chart, but could not be read from the various staff positions. Where the ECL's trigger key response activities, it is recommended that they be highlighted or posted on placards to decrease the possibility of confusion on part of staff members.

Objective 2, the ability to fully alert, mobilize and activate personnel for both facility and field-based emergency functions, was adequately demonstrated. Call down of EOC personnel was initiated by the EMC promptly at 1630 hours, upon her arrival at the EOC. Most calls were made by the Deputy EMC, however, and were accomplished from her residence (utilizing a current roster). The Deputy EMC periodically called the EOC to advise the EMC on the status of staff contacts. The EOC was completely staffed by 1810 hours.

Objective 3, the ability to direct, coordinate and control emergency activities, was adequately demonstrated. There is, however, one area for improvement that has to do with the control of messages. A separate log was not maintained for the recording of messages, as specified by the plan (Attachment C-2). Instead, all incoming messages from the County were posted on the EOC events/status chart. The maintenance of a message log for all messages, in-coming and out-going, would enhance the ability to track activities and unmet needs originating from the EOC, by facilitating the retrieval of specific messages from among the many file copies, and assuring that message copies are not lost or displaced.

Objective 4, the ability to communicate with all appropriate locations, organizations, and field personnel, was adequately demonstrated. An exceptional communications feature during the exercise was the use of a radio-linked facsimile system that provided hard copy transcripts of priority County messages.

Objective 5, the adequacy of facilities, equipment, displays and other materials to support emergency operations, was effectively demonstrated. A previous and plan designated unmet need concerning auxiliary power has been resolved by the Borough's acquisition of a portable generator.

The EOC did not have a map depicting the entire 10 mile EPZ. An EPZ map would enhance the staff's understanding of incident development, protective actions, and evacuation processes, by providing a broader perspective of emergency response.

Objective 6, the ability to continuously monitor and control emergency worker exposure, was adequately demonstrated. One discrepancy was observed, however, regarding the decontamination station to be utilized by the Borough's emergency workers. The EOC posted the Wright Township Fire Company as the emergency worker decon station, while the municipal plans identify the Crestwood Area High School (see 1-8 of the municipal SOP's). When questioned on the matter, the EMC stated that the intended location is indeed the Wright Township Fire Company, and that the plans need to be updated to reflect this.

Objective 12, the ability to initially alert the public within the 10-mile EPZ and begin dissemination of an instructional message within 15 minutes of a decision by appropriate State and/or local officials, was adequately demonstrated as applicable to municipal responsibilities. Two route alert teams were actually dispatched, and successfully accomplished their mission well within 45 minutes.

Objective 16, the ability to make the decision to recommend the use of KI to emergency workers based on predetermined criteria as well as to distribute and administer it once the decision is made, was adequately demonstrated as applicable to municipal responsibilities.

Objective 18, the ability and resources necessary to implement appropriate protective actions for the impacted permanent and transient plume EPZ population (including transit-dependent persons, special needs populations, handicapped persons, and institutionalized persons), was adequately demonstrated.

Objective 20, the organizational ability and resources necessary to control evacuation traffic flow and to control access to evacuated and sheltered areas, was adequately demonstrated. One traffic control point was actually deployed and manned by a municipal police officer who was adequately briefed by the EMC and Radiological Officer prior to being dispatched.

Objective 36, the ability to conduct an unannounced exercise, was adequately demonstrated.

## SALEM TOWNSHIP EOC

Objective 1, the ability to monitor, understand and use emergency classification levels (ECL) through the appropriate implementation of emergency functions and activities corresponding to ECLs as required by the scenario was adequately demonstrated.

Objective 2, the ability to fully alert, mobilize and activate personnel for both facility and field-based emergency functions was adequately demonstrated.

Objective 3, the ability to direct, coordinate and control emergency activities was adequately demonstrated.

Objective 4, the ability to communicate with all appropriate locations, organizations, and field personnel was adequately demonstrated.

Objective 5, facilities, equipment, displays and other materials to support emergency operations was adequately demonstrated.

Objective 6, the ability to continuously monitor and control emergency worker exposure was adequately demonstrated.

Objective 12, the ability to initially alert the public within the 10-mile EPZ and begin dissemination of an instructional message within 15 minutes of a decision by appropriate State and/or local officials, was adequately demonstrated. Three route alerting teams were dispatched and performed their duties satisfactorily.

Objective 16, the ability to make the decision to recommend the use of KI to emergency workers based on predetermined criteria as well as to distribute and administer it once the decision is made, was adequately demonstrated.

Objective 18, the ability and resources necessary to implement appropriate protective actions for the impacted permanent and transient plume EPZ population, was adequately demonstrated.

Objective 20, the organizational ability and resources necessary to control evacuation traffic flow and to control access to evacuated and sheltered areas, was adequately demonstrated.

Objective 36, the ability to conduct an unannounced exercise was adequately demonstrated.



## SHICKSHINNY BOROUGH EOC

Objective 1, the ability to monitor, understand and use emergency classification levels (ECL) through the appropriate implementation of emergency functions and activities corresponding to ECLs as required by the scenario, was adequately demonstrated.

Objective 2, the ability to fully alert, mobilize and activate personnel for both facility and field-based emergency functions, was adequately demonstrated. An able substitution was obtained for the role of Fire Director, as the plan designated Officer was ill, and his substitute was unavailable for the exercise.

Objective 3, the ability to direct, coordinate and control emergency activities, was adequately demonstrated.

Objective 4, the ability to communicate with all appropriate locations, organizations, and field personnel, was adequately demonstrated.

Objective 5, the adequacy of facilities, equipment, displays and other materials to support emergency operations, was effectively demonstrated.

Objective 6, the ability to continuously monitor and control emergency worker exposure, was adequately demonstrated.

Objective 12, the ability to initially alert the public within the 10-mile EPZ and begin dissemination of an instructional message within 15 minutes of a decision by appropriate State and/or local officials, was adequately demonstrated as applicable to municipal responsibilities. The Borough successfully briefed and dispatched one route alert team, which conducted its mission in 17 minutes.

Objective 16, the ability to make the decision to recommend the use of KI to emergency workers based on predetermined criteria as well as to distribute and administer it once the decision is made, was not adequately demonstrated as applicable to municipal responsibilities. The County forwarded the Secretary of Health order for emergency workers to ingest KI at 2038 hours. This message was misinterpreted by the Shickshinny EMC to mean only workers near the site boundary were to ingest KI. The EOC staff, therefore, as well as route alert and traffic control personnel, did not receive the order. However, the hard copy of this message received by the EOC (Priority Message 5) clearly instructs all emergency workers to take KI.

Objective 18, the ability and resources necessary to implement appropriate protective actions for the impacted permanent and transient plume EPZ population (including transit-dependent

persons, special needs populations, handicapped persons, and institutionalized persons), was adequately demonstrated.

Objective 20, the organizational ability and resources necessary to control evacuation traffic flow and to control access to evacuated and sheltered areas, was adequately demonstrated. The Borough successfully deployed four traffic control points during the exercise.

Objective 36, the ability to conduct an unannounced exercise, was adequately demonstrated.

## SLOCUM TOWNSHIP EOC

Objective 1, the ability to monitor, understand and use emergency classification levels (ECL) through the appropriate implementation of emergency functions and activities corresponding to ECLs as required by the scenario was adequately demonstrated.

Objective 2, the ability to fully alert, mobilize and activate personnel for both facility and field-based emergency functions was adequately demonstrated. Some staff names and telephone numbers were incorrect in the plan.

Objective 3, the ability to direct, coordinate and control emergency activities was adequately demonstrated. The plan states that the relocation site for this township is Crestwood High School; the EOC staff stated that the relocation site is and always has been, the Davis Street Shopping Center.

Objective 4, the ability to communicate with all appropriate locations, organizations, and field personnel was adequately demonstrated.

Objective 5, facilities, equipment, displays and other materials to support emergency operations was adequately demonstrated. The Township is currently in the process of building an addition to the EOC to provide a space for cots for 24-hour staffing capability.

Objective 6, the ability to continuously monitor and control emergency worker exposure was adequately demonstrated. Several areas in the plan are not up to date; the plan states that 44 dosimetry kits are required. The EMC said that 31 kits are all that is needed; the plan also states that the emergency worker decontamination center is Crestwood High School; that has recently been changed to the Wright Township Fire Station.

Objective 12, the ability to initially alert the public within the 10-mile EPZ and begin dissemination of an instructional message within 15 minutes of a decision by appropriate State and/or local officials, was adequately demonstrated. Three route alerting teams were actually dispatched.

Objective 16, the ability to make the decision to recommend the use of KI to emergency workers based on predetermined criteria as well as to distribute and administer it once the decision is made, was adequately demonstrated.

Objective 18, the ability and resources necessary to implement appropriate protective actions for the impacted permanent and transient plume EPZ population, was adequately demonstrated.



Objective 20, the organizational ability and resources necessary to control evacuation traffic flow and to control access to evacuated and sheltered areas, was adequately demonstrated.

Objective 36, the ability to conduct an unannounced exercise was adequately demonstrated.

## SUGARLOAF TOWNSHIP EOC

Objective 1, the ability to monitor, understand and use emergency classification levels (ECL) through the appropriate implementation of emergency functions and activities corresponding to ECLs as required by the scenario, was adequately demonstrated.

Objective 2, the ability to fully alert, mobilize and activate personnel for both facility and field-based emergency functions, was adequately demonstrated.

Objective 3, the ability to direct, coordinate and control emergency activities, was adequately demonstrated.

Objective 4, the ability to communicate with all appropriate locations, organizations, and field personnel, was adequately demonstrated.

Objective 5, the adequacy of facilities, equipment, displays and other materials to support emergency operations, was effectively demonstrated.

Objective 6, the ability to continuously monitor and control emergency worker exposure, was adequately demonstrated.

Objective 12, the ability to initially alert the public within the 10-mile EPZ and begin dissemination of an instructional message within 15 minutes of a decision by appropriate State and/or local officials, was adequately demonstrated as applicable to municipal responsibilities.

Objective 16, the ability to make the decision to recommend the use of KI to emergency workers based on predetermined criteria as well as to distribute and administer it once the decision is made, was adequately demonstrated as applicable to municipal responsibilities.

Objective 18, the ability and resources necessary to implement appropriate protective actions for the impacted permanent and transient plume EPZ population (including transit-dependent persons, special needs populations, handicapped persons, and institutionalized persons), was adequately demonstrated.

Objective 20, the organizational ability and resources necessary to control evacuation traffic flow and to control access to evacuated and sheltered areas, was adequately demonstrated.

Objective 36, the ability to conduct an unannounced exercise, was adequately demonstrated.

## UNION TOWNSHIP EOC

Objective 1, the ability to monitor, understand and use emergency classification levels (ECL) through the appropriate implementation of emergency functions and activities corresponding to ECLs as required by the scenario, was adequately demonstrated.

Objective 2, the ability to fully alert, mobilize and activate personnel for both facility and field-based emergency functions, was adequately demonstrated.

Objective 3, the ability to direct, coordinate and control emergency activities, was adequately demonstrated.

Objective 4, the ability to communicate with all appropriate locations, organizations, and field personnel, was adequately demonstrated.

Objective 5, the adequacy of facilities, equipment, displays and other materials to support emergency operations, was effectively demonstrated.

Objective 6, the ability to continuously monitor and control emergency worker exposure, was adequately demonstrated.

Objective 12, the ability to initially alert the public within the 10-mile EPZ and begin dissemination of an instructional message within 15 minutes of a decision by appropriate State and/or local officials, was adequately demonstrated as applicable to municipal responsibilities. Two route alert teams were properly dispatched and concluded their routes within 45 minutes.

Objective 16, the ability to make the decision to recommend the use of KI to emergency workers based on predetermined criteria as well as to distribute and administer it once the decision is made, was adequately demonstrated as applicable to municipal responsibilities.

Objective 18, the ability and resources necessary to implement appropriate protective actions for the impacted permanent and transient plume EPZ population (including transit-dependent persons, special needs populations, handicapped persons, and institutionalized persons), was adequately demonstrated.

Objective 20, the organizational ability and resources necessary to control evacuation traffic flow and to control access to evacuated and sheltered areas, was adequately demonstrated by the successful deployment of two traffic control points.

Objective 36, the ability to conduct an unannounced exercise, was adequately demonstrated.



### 3. SUPPORT COUNTIES

#### LACKAWANNA COUNTY EOC, RECEPTION AND MASS CARE CENTERS

Objective 1, the ability to monitor, understand and use Emergency Classification Levels, was adequately demonstrated.

Objective 2, the ability to fully alert, mobilize and activate personnel for both the Emergency Operations Center (EOC) and field locations, was adequately demonstrated.

Objective 4, the ability to communicate with all appropriate locations, organizations and field personnel, was adequately demonstrated. RACES support was outstanding at the EOC, Reception Center and Mass Care Center.

Objective 6, the ability to continuously monitor and control emergency worker exposure, was adequately demonstrated.

Objective 21, procedures, facilities, equipment and personnel for the registration, radiological monitoring and decontamination of evacuees, was adequately demonstrated. However, the radiological specialist at the Mass Care Center did not monitor the soles of the shoes of an evacuee, thereby creating a potential contamination hazard for non-contaminated evacuees and emergency response members. (See Annex E, Appendix 5, 2.a.10, page E-5-17.)

The strip map which was given to evacuees who arrived at the Davis Street Shopping Center should be redrawn for greater clarity of names, street intersections, and distance to the Mass Care Center at Riverside Junior-Senior High School. The strip map was lightly hand-drawn and was difficult to read.

Objective 22, facilities, equipment and personnel for congregate care of evacuees, was adequately demonstrated.

## LYCOMING COUNTY EOC, RECEPTION AND MASS CARE CENTERS

Objective 1, the ability to monitor, understand and use Emergency Classification Levels (ECLs), was adequately demonstrated.

Objective 2, the ability to fully alert, mobilize and activate personnel for both EOC and field locations, was adequately demonstrated.

Objective 4, the ability to communicate with all appropriate locations, organizations and field personnel, was adequately demonstrated. RACES support was excellent. A computer linked to radio enabled the Reception Center to send hard copy to the County EOC. This capability can prove invaluable for other field operations and locations.

Objective 6, the ability to continuously monitor and control emergency worker exposure, was adequately demonstrated.

Objective 21, procedures, facilities, equipment and personnel for the registration, radiological monitoring and decontamination of evacuees, was adequately demonstrated. Vehicle monitoring and decontamination was performed at the Reception Center rather than at the Mass Care Center.

Objective 22, facilities, equipment and personnel for congregate care of evacuees, was adequately demonstrated.

## NORTHUMBERLAND COUNTY EOC, RECEPTION AND MASS CARE CENTERS

Objective 1, the ability to monitor, understand and use Emergency Classification Levels (ECLs), was adequately demonstrated. The Emergency Management Coordinator (EMC), appointed in mid-1988, effectively implemented County plans and procedures but was not fully cognizant of the ECL vocabulary during evaluator debriefing.

Objective 2, the ability to fully alert, mobilize and activate personnel for both EOC and field locations, was adequately demonstrated. The County Commissioners, EMC and the EOC staff demonstrated that they were committed to completely support the county's role in the event of an incident.

Objective 4, the ability to communicate with all appropriate locations, organizations and field personnel, was adequately demonstrated. When the first communications responder arrived at the County EOC and began equipment checks, he realized that the County's radio equipment for monitoring the state's Radio Amateur Frequency was inoperative. He contacted another volunteer communications operator, who brought in his own personal equipment to the EOC to monitor the State frequency. The down time without radio coverage was approximately fifteen minutes and no radio traffic was waiting.

At the Reception/Mass Care Center, located in Milton Borough, the Milton Fire Department provided a communications van to supply a completely separate set of communications links.

Objective 6, the ability to continuously monitor and control emergency worker exposure, was adequately demonstrated. However, the County monitoring/decontamination team did not record the dosimeters' initial or subsequent readings because they did not have record-keeping forms.

Objective 21, procedures, facilities, equipment and personnel for the registration, radiological monitoring and decontamination of evacuees, was adequately demonstrated. The Reception Center was activated with the Red Cross in charge of coordination. In addition, a full complement of Milton Borough emergency response personnel was at the Reception Center.

The monitoring team used survey meters with no calibration stickers (inside or outside the meter). One member of the team needed additional overall training on radiological monitoring equipment and procedures. The other team member demonstrated a familiarity with equipment and procedures.

The shower/decontamination areas were accessible through a single door. Traffic patterns in and out of the showers should be modified to minimize the possibility for cross-contamination.



Objective 22, facilities, equipment and personnel for congregate care of evacuees, was adequately demonstrated. The Mass Care Center was activated with the Red Cross in charge of coordination. In addition, a full complement of Milton Borough emergency response personnel was at the Mass Care Center. As the County and Borough groups operated independently at the reception/mass care centers, it is recommended that the respective EMCs coordinate the activities to maximize the efficient use of personnel.

## SCHUYLKILL COUNTY EOC, RECEPTION AND MASS CARE CENTERS

Objective 1, the ability to monitor, understand and use Emergency Classification Levels (ECLs), was adequately demonstrated.

Objective 2, the ability to fully alert, mobilize and activate personnel for both EOC and field locations, was adequately demonstrated.

Objective 4, the ability to communicate with all appropriate locations, organizations and field personnel, was adequately demonstrated.

Objective 6, the ability to continuously monitor and control emergency worker exposure, was adequately demonstrated. The emergency workers stated that they did not have an assignment in the 10-mile Emergency Planning Zone (EPZ), so they were not equipped to enter the EPZ.

Objective 21, procedures, facilities, equipment and personnel for the registration, radiological monitoring and decontamination of evacuees, was adequately demonstrated. The traffic control procedures leading into the reception center were excellent. Traffic control was performed by a Fire Police unit at every intersection. Although the plan for the reception center did not address the radiation monitoring facet of this location, radiological personnel monitored vehicles at the reception center. Any contaminated vehicles would be parked in a special location and their occupants would be transported by bus to the proper mass care center. However, the monitoring/decontamination team members at the mass care center were not sufficiently knowledgeable of the procedures for personnel monitoring and contamination control.

Objective 22, facilities, equipment and personnel for congregate care of evacuees, was adequately demonstrated.

## UNION COUNTY EOC, RECEPTION AND MASS CARE CENTERS

Objective 1, the ability to monitor, understand and use Emergency Classification Levels (ECLs), was adequately demonstrated.

Objective 2, the ability to fully alert, mobilize and activate personnel for both EOC and field locations, was adequately demonstrated.

Objective 4, the ability to communicate with all appropriate locations, organizations and field personnel, was adequately demonstrated.

Objective 6, the ability to continuously monitor and control emergency worker exposure, was adequately demonstrated.

Objective 21, procedures, facilities, equipment and personnel for the registration, radiological monitoring and decontamination of evacuees, was adequately demonstrated.

Objective 22, facilities, equipment and personnel for congregate care of evacuees, was adequately demonstrated.



## WYOMING COUNTY EOC, RECEPTION AND MASS CARE CENTERS

Objective 1, the ability to monitor, understand and use Emergency Classification Levels (ECLs), was adequately demonstrated.

Objective 2, the ability to fully alert, mobilize and activate personnel for both EOC and field locations, was adequately demonstrated.

Objective 4, the ability to communicate with all appropriate locations, organizations and field personnel, was adequately demonstrated.

Objective 6, the ability to continuously monitor and control emergency worker exposure, was adequately demonstrated.

Objective 21, procedures, facilities, equipment and personnel for the registration, radiological monitoring and decontamination of evacuees, was adequately demonstrated. However, the monitoring team would benefit from additional training and familiarization with personnel monitoring. Due to the unannounced date and time of the exercise, the plan-designated reception and mass care facilities were being used for other functions, and were not available for the exercise demonstration; the reception center was demonstrated at a location (the Skrynsinski Building) not identified in the plans.

Objective 22, facilities, equipment and personnel for congregate care of evacuees, was adequately demonstrated. The Skrynsinski Building was used for mass care because the first two County choices were not available for this exercise (see Objective 21). This facility is the third alternate and no showers were available here. As a result, some demonstrations had to be verbal. The first two alternate mass care centers each have showers.

## B. SUMMARY LIST OF ISSUES

The issues listed for each evaluated location or activity have been summarized and classified according to the following categories:

Deficiencies are demonstrated and observed inadequacies that cause a finding that offsite emergency preparedness was not adequate to provide reasonable assurance that appropriate protective measures can be taken to protect the health and safety of the public living in the vicinity of the Susquehanna Steam Electric Station in the event of a radiological emergency. Because of the potential impact of deficiencies on emergency preparedness, they are required to be promptly corrected through appropriate remedial actions including remedial exercises, drills or other actions. There was one deficiency identified during this exercise, that being the failure of Briar Creek Borough to participate and demonstrate its applicable exercise objectives.

Areas Requiring Corrective Action are demonstrated and observed inadequacies of performance, and although their correction is required during the next scheduled biennial exercise, they are not considered, by themselves, to adversely impact public health and safety. There were 41 Areas Requiring Corrective Action identified during this exercise.

Areas Recommended for Improvement are problem areas observed during an exercise that are not considered to adversely impact public health and safety. While not required, correction of these would enhance an organizations level of emergency preparedness. There were 21 Areas Recommended for Improvement identified during this exercise.

## DEFICIENCY

Problem ID	Location/Activity	NUREG Element	Proposed Correction Date	Confirmed Correction Date
SQX89-1D	Briar Creek Borough EOC	N.1.b.	June, 1989	June, 1989

Reportedly due to illness, the entire Briar Creek Borough emergency management staff failed to participate in the exercise, as required by FEMA regulation 44 CFR 350. None of the exercise objectives applicable to the Borough were demonstrated in a manner consistent with the Borough's emergency plan, and there was no reasonable assurance that Borough emergency officials could take protective measures to assure the health and safety of the public within the Borough. Correction of this inadequacy should be demonstrated by a remedial exercise, to be completed no later than 120 days from the exercise date.

### State Response:

State and county plans specify that the next higher governmental agency becomes responsible for the missions of a municipality that is unable to respond. These provisions were followed. Twenty-four hour staffing was provided by Columbia County and the Briar Creek EOC was activated and operational. The auxiliary county staff coordinated or fulfilled the exercise objectives. The statement that none of the objectives were demonstrated in a manner consistent with the Borough's plan is completely erroneous. As an example, the plan calls for Berwick Borough personnel to man Briar Creek's TCPs and perform route alerting. These were demonstrated.

A further claim by FEMA is that Briar Creek did not participate in the 1987 biennial exercise and due to the lack of participation over a period of four years should receive a deficiency. This also is incorrect. FEMA records indicate that Briar Creek participated in the April, 1987 exercise. The disconnect is believed to center on the fact that FEMA elected to evaluate only one-third of the municipalities in 1987 and Briar Creek was, therefore, not evaluated by FEMA. This finding is inconsistent with standards and criteria that are applied in other cases wherein a deficiency is not declared if the objectives are met even though the individual municipality was unable to participate. Accordingly, this finding should be deleted from the final report.

### FEMA Comment:

The finding of the Deficiency is based on two factors: 1) FEMA's Regulation 44 CFR 350 is very explicit concerning the requirement for participation in every biennial exercise by local governments which are within the 10-mile Emergency Planning Zone and which have a specific role in emergency planning and preparedness, and 2) FEMA's expectation that Borough officials would respond, activate and staff their EOC, and



demonstrate their capability to accomplish the exercise objectives by performing their plan-designated responsibilities was substantiated by PEMA's limits of play, submitted as part of the exercise objectives, which clearly confirmed that all municipalities would participate. The simultaneous incapacitation of all of the Borough's EOC staff by illness does not excuse the Borough's obligation to demonstrate their role in protecting the health and safety of the public.

The circumstance regarding the Borough's participation in the 1987 exercise was never a consideration in the assignment of this Deficiency, and is not cited in either the draft or final version of this report. The fact that the Borough personnel had not been evaluated since the 1985 exercise was noted parenthetically in a letter to PEMA advising of the Deficiency.

## AREA REQUIRING CORRECTIVE ACTION

Problem ID	Location/Activity	NUREG Element	Proposed Correction Date	Confirmed Correction Date
SQX89-1R	State EOC	E.2.	Feb. 1989	

State level liaison officers representing the Pennsylvania Department of Transportation and the Department of Military Affairs (National Guard) were not activated and dispatched to the Columbia and Luzerne County EOC's as prescribed by Annex E and the respective County plans. These liaison officers should participate in the biennial exercises. (Objective 2)

### State Response:

The notification procedures (PEMA operations officer to the emergency preparedness liaison officer of the Departments of Transportation and Military Affairs to their field representatives) were properly executed.

However, since this was an unannounced exercise, it required a considerably longer time to try to locate the primary field representative. When the primary representatives could not be contacted, the alternates were called but location was a slow process. By the time the alternates responded, the exercise was near termination.

The representatives were available five hours after the "ALERT" notifications. One must keep in mind that the exercise is conducted under accelerated time conditions. Relate the five-hour accelerated reporting time to the normal expected time-period for "ALERT" (12 hours to days) and the two representatives would have been available in plenty of time to accomplish any task required during the normal "ALERT" level. Additionally, don't lose sight of the fact that legally, the Military Affairs representative is not available until the Governor declares a disaster and mobilizes the National Guard, which is late in the exercise.

Backup procedures were implemented by notifying the counties that the Departments of Transportation and Military Affairs EPLOs in the State EOC were available to them for any information or requirements. We believe this system is sound, and no corrective action is necessary.

AREA REQUIRING CORRECTIVE ACTION

Problem ID	Location/Activity	NUREG Element	Proposed Correction Date	Confirmed Correction Date
SQX89-2R	State EOC	F.1.b.	Aug. 1989	

The dedicated conferencing line (that simultaneously connects the State EOC with the EOF and risk counties) was not used properly at the State EOC through most of the exercise. PEMA did not answer this line except for the last two messages of the exercise. The Utility's Communications Coordinator at the EOF was able to effectively communicate with both risk county EOC's on the dedicated line, but was forced to utilize a commercial line, involving the intervention of EOC support personnel, in forwarding several priority messages to the State EOC Operations Director. These included the notification of the escalation to General Emergency and the event of a release, receipt of which was delayed by 9 minutes. The reason for PEMA's failure to answer this line has not been identified. The cause of this failure should be investigated and corrected as soon as possible; effective use of the priority conferencing line must be demonstrated in future exercises. (Objective 4)

State Response:

PP&L has an EOF dedicated phone line to the State EOC and the risk counties. By dial number codes, PP&L can talk to both (State EOC and risk counties) simultaneously or separately by dialing a code. This dedicated phone line has been tested weekly between the Susquehanna Plant and the State EOC without failures. This line was tested successfully two days prior to the unannounced exercise.

The Exercise "ALERT" notification was passed to PEMA on the dedicated line. The operations room coordinating officer was in touching distance of the phone during the exercise. The phone rings and a small red light flickers on the console button. The operations room coordinating officer has had ten years experience in the EOC and does not believe that the phone could ring and the red light flash (even at the loudest and busiest times) without him noticing it by the second ring. The power plant EOF was contacted after the exercise to see if perhaps a code was dialed which excluded PEMA but kept the two risk counties on the line - the EOF said this did not happen. Both the PP&L system and the State line were working at the end of the exercise and have tested operational since that time.

Detailed analysis supports the fact that the dedicated phone system should have only one ringdown and that should be to the State EOC and the two risk counties simultaneously. This will preclude any error from the EOF end of the line. At the State EOC end of the line, a separate phone with a large red light and different ring will be installed in the new State emergency operations room.



FEMA Comment:

In response to FEMA's comments (not included here, as they are no longer applicable) FEMA reevaluated the draft report finding that Objective 4 was not met at the State EOC due to the occurrence of this ARCA. FEMA concluded that successful use of the backup system to complete the messages is within the limit of the objective. All applicable sections of this report have been modified to indicate that the objective was met.

AREA REQUIRING CORRECTIVE ACTION

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Problem ID	Location/Activity	NUREG Element	Proposed Correction Date	Confirmed Correction Date
SQX89-3R	Field Monitoring Teams	K.4.	July 1989	

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Several field monitoring personnel were not adequately familiar with the authorized exposure limits. One member of the Norristown 113 team stated that the authorized exposure for the team's mission was .5R, while a second team member stated it was 25R. These field team members should be provided with additional training in radiological exposure control. (Objective 6)

State Response:

Since only one field team of three individuals was observed by FEMA, it is unknown how it was construed that several people need additional training in radiological exposure control. The senior team member believing the observer wanted to know the emergency worker whole body PAG gave an answer of 25R. One of the associate members gave an answer of 0.5 which is the limit department employees may receive during a mission before contacting the ECC for consultation. As long as radio contact is maintained, field team members are authorized to receive from 1-5 Rems whole body exposure per mission. Additional exposure up to 25 Rems could be authorized, though unlikely, at the discretion of the Department.

The individuals were instructed in authorized mission exposure limits on July 3, 1989.

AREA REQUIRING CORRECTIVE ACTION

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Problem ID	Location/Activity	NUREG Element	Proposed Correction Date	Confirmed Correction Date
SQX89-4R	Field Monitoring Teams	K.3	June 1988	

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Personal protective equipment (i.e., gloves, booties, coverall, etc.) was not provided to the Norristown 113 field team, as specified in Annex E (Appendix 5). Personal protective equipment should be provided to the field team members along with appropriate training. (Objective 6)

State Response:

It is the Department of Environmental Resources' policy to not send emergency workers into contaminated areas without protective clothing. It does not promote public confidence to have field teams in Anti-C clothing observed by the general public operating in background or minimal radiation fields. However, clothing was distributed to field teams for inclusion in emergency response kits on June 20, 1988, should the need arise.

FEMA Comment:

The ARCA was identified because the teams did not have the specified Anti-C clothing in their kits.



AREA REQUIRING CORRECTIVE ACTION

Problem ID	Location/Activity	NUREG Element	Proposed Correction Date	Confirmed Correction Date
SQX89-5R	Field Monitoring Teams	1.11.	Feb. 1991	

One of the low range survey instruments did not have a calibration sticker (inside or outside). This instrument should be promptly calibrated, if necessary, and the appropriate sticker should be affixed to the instrument. (Objective 7)

State Response:

The instrument in question was recently purchased and calibrated at the factory. Team members have been instructed to choose instruments with valid calibration stickers as of February 24, 1989.

An inspection indicates that the instrument in question had a current calibration rating. This is the third time that FEMA has stated a requirement for a tag or sticker denoting the calibration date which is inconsistent with State procedures. The latter provide for stamping the calibration date on one of the battery posts. Request that the state procedures be recognized on future exercises.

FEMA Comment:

FEMA has and will recognize whatever means the State uses for identifying equipment calibration dates, whether by sticker, date-stamping, providing a separate listing by serial number and date, or whatever, and this will be stressed in our evaluator instructions. The point of the ARCA was that no evidence of the calibration date was available. The ARCA writer erroneously used the term "sticker" to refer to the method of identifying calibration date, just as the FEMA response writer did, in the second sentence.

AREA REQUIRING CORRECTIVE ACTION

Problem ID	Location/Activity	NUREG Element	Proposed Correction Date	Confirmed Correction Date
SQX89-6R	Traffic/Access Control	K.3.a, b	June 1989	

There was no demonstration of the issuing of TLD's by either of the participating PSP Troops. There was also no demonstration of the issuing of KI, low range dosimeters, and exposure control record forms, nor an adequate briefing on the use of such items, for the Troopers dispatched from the Bloomsburg Substation to man their designated Traffic and Access Control points. All troopers should be properly briefed and equipped for exposure control prior to their assignment and manning of ACP's and TCP's. (Objective 6)

State Response:

During the exercise on February 22, 1989, a training deficiency was uncovered by FEMA relative to the advantages afforded by the use of protective clothing and the value of staying inside of a closed vehicle whenever possible when manning ACPs and TCPs. Additionally, it was noted that our members were unaware of the proper use of TLDs or KI tablets. In short, further emphasis needed to be focused in the area of radiological exposure control.

Accordingly, we have taken steps to ensure that command personnel responsible for future orientation and briefing sessions at all staging areas are cognizant of proper procedures and briefing requirements. However, actual issue of dosimetry and KI will be in accordance with exercise objectives. For this exercise, there was no requirement to issue these items to the state police.

FEMA Comment:

The ARCA was not worded as accurately as possible. It is recognized that actual dosimetry and KI were not to have been provided; however, the distribution procedure for these items should have been demonstrated, and the troopers should have been briefed concerning their use. The narrative for Objective 6 on page 26 more accurately states the issue.

## AREA REQUIRING CORRECTIVE ACTION

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Problem ID	Location/Activity	NUREG Element	Proposed Correction Date	Confirmed Correction Date
SQX89-7R	Columbia Co. EOC	G.4.c.	Fall 1989	

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The public information and rumor control staff, operating in a room separate from the operations area, experienced some avoidable delay in receiving status updates and other important information. Such information should be provided promptly. It is recommended that this be accomplished by modifying the message distribution procedure to include the public information staff for status updates and other important messages. (Objective 3)

### State Response:

The delay was noted during exercise and corrective actions were taken. The EOC will be relocated in the fall of 1989 whereby rumor control and public information staff will be colocated with EOC personnel.



AREA REQUIRING CORRECTIVE ACTION

Problem ID	Location/Activity	NUREG Element	Proposed Correction Date	Confirmed Correction Date
SQX89-8R	Columbia Co. EOC	E.2.	Fall 1989	

There was a delay of 14 minutes following receipt of the General Emergency notification until the municipal EOCs were notified via the emergency management radio. The Coordinator should assure that communications operators transmit significant information such as emergency classification level upgrades to the municipal EOCs in the least possible time. (Obj. 3)

State Response:

Alternate procedures are being adopted to avert this oversight during future exercises or contingencies.

AREA REQUIRING CORRECTIVE ACTION

Problem ID	Location/Activity	NUREG Element	Proposed Correction Date	Confirmed Correction Date
SQX89-9R	Columbia County Mass Care Center	J.12.	Fall 1989	

The monitoring location at the entrance to the mass care center was not in close proximity to the decontamination showers. Contaminated evacuees had to exit the building and walk around to another entrance near the showers, and then return for re-monitoring after decontamination. The mass care center should be planned and set up to minimize the possibility for cross-contamination, and to establish a more efficient circulation. It is recommended that the main entrance (and monitoring location) be changed to a door near the decon showers. (Objective 21)

State Response:

The Mass Care Center operation is being reconfigured at this location to eliminate the problem.

AREA REQUIRING CORRECTIVE ACTION

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Problem ID	Location/Activity	NUREG Element	Proposed Correction Date	Confirmed Correction Date
SQX89-10R	Columbia County Emergency Worker Decon.	K.5.b.	Feb. 1991	

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The procedures and equipment for monitoring and decontaminating vehicles were not demonstrated. Vehicle monitoring and decontamination procedures and equipment should be demonstrated in future exercises. (Objective 25)

State Response:

Monitoring and decontamination procedures will be demonstrated during future exercises if required.



## AREA REQUIRING CORRECTIVE ACTION

Problem ID	Location/Activity	NUREG Element	Proposed Correction Date	Confirmed Correction Date
SQX89-11R	Columbia County Emergency Worker Decon.	K.5.b.	Continuous	

The procedures and facilities for personnel decontamination were inadequate in the following respects: contaminated personnel were not kept entirely separated from uncontaminated personnel, providing the opportunity for cross contamination; decontaminated individuals were routed from the shower to be remonitored via an outside route and without adequate clothing available; there were no provisions for replacement clothing for emergency workers following decontamination. The personnel decontamination facility should be planned in advance with the goal of eliminating the possibility for cross-contamination, and eliminating the need for personnel to go outside in order to be remonitored. Replacement clothing should be available for decontaminated emergency workers, to allow them to return to their duties. (Objective 25)

### State Response:

Procedures followed during February 1989 exercise were identical to those procedures exercised during the 1987 evaluation and found to be adequate by the FEMA evaluators.

Replacement clothing was not required to be stockpiled for the exercise and therefore should not be evaluated.

Routing of evacuees does not require them to exit the building. Normal procedures provide for not mixing contaminated and clean evacuees. Additional training will be provided.

### FEMA Comment:

In response to FEMA's comment (not included here, as it is no longer applicable) FEMA reevaluated the draft report finding that separate male and female decontamination showers were not available. A review of the 1987 exercise evaluation report confirmed that the facility, the Columbia-Montour Vo-Tech School, is equipped with separate showering facilities. Although the evaluator's report for the 1989 demonstration indicates that the facility was not set up to demonstrate the separate showers, this part of the ARCA was removed because it incorrectly stated that the showers were not available (all appropriate sections of the report were revised accordingly). The State's response refutes the remainder of the evaluator's findings, but as it does not include sufficient evidence to support the contentions, such as a diagram of the facility's set-up for the demonstration, FEMA accepts the evaluator's findings. While replacement clothing need not be physically present, the facility staff should be prepared to describe its availability.

AREA REQUIRING CORRECTIVE ACTION

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Problem ID	Location/Activity	NUREG Element	Proposed Correction Date	Confirmed Correction Date
SQX89-12R	Beaver Twp EOC	F.1.b.	June 1990	

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The Township did not have radios for communicating with traffic control personnel, as specified in the emergency plan (Attachment D.2). Radios should be available for communications between the EOC and field personnel. (Objective 4)

State Response:

Radios for Beaver Township are being purchased by means of 1989-1990 Act 147 funds.

AREA REQUIRING CORRECTIVE ACTION

Problem ID	Location/Activity	NUREG Element	Proposed Correction Date	Confirmed Correction Date
SQX89-13R	Berwick Boro EOC	F.1.b.	June 1990	

The Borough did not have a sufficient quantity of hand held radios for communicating with traffic control personnel, as specified in the emergency plan (Attachment D.2.). This was reported to the county as an unmet need. Such radios should be available from the outset of an emergency, for timely and effective implementation and direction of traffic control personnel. (Objective 4)

State Response:

Radios for Berwick Borough are being purchased by means of 1989-1990 Act 147 funds.



AREA REQUIRING CORRECTIVE ACTION

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Problem ID	Location/Activity	NUREG Element	Proposed Correction Date	Confirmed Correction Date
SQX89-14R	Briar Creek Township EOC	E.2.	Feb. 1990	

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The Public Information function identified in the plan (Section V.1. and SOP J.) was not addressed, as the position was not staffed, nor were the responsibilities formally assigned to another staff member. Township officials should recruit and train someone to fill this position, or formally assign the duties to another staff member. The assignment of personnel to perform all plan-designated functions should be demonstrated in future exercises. (Objective 2)

State Response:

The function of the Public Information Officer is handled by the Municipal EMC in coordination with elected officials. Plans will be annotated.

AREA REQUIRING CORRECTIVE ACTION

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Problem ID	Location/Activity	NUREG Element	Proposed Correction Date	Confirmed Correction Date
SQX89-15R	Briar Creek Township EOC	J.10.j.	Feb. 1989	

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Sufficient Township personnel were not available to man any traffic control posts, so the police services officer requested, and received, State Police assistance for this function. In accordance with the exercise objectives, Township officials should have demonstrated actual manning of at least one of the three TCPs for which they have responsibility. Township officials should re-evaluate their resources to perform this duty and make necessary planning changes should this responsibility be changed; if it remains a Township responsibility, it should be demonstrated in future exercises. (Obj. 20)

State Response:

Present planning calls for all TCPs to be manned by Township personnel if available. If not available, the PA State Police are used as a backup for the Township. During the February 22 exercise the Briar Creek Township police were in an emergency and the PA State Police were used to man the TCP. Township plans were reviewed and found to be adequate.

AREA REQUIRING CORRECTIVE ACTION

Problem ID	Location/Activity	NUREG Element	Proposed Correction Date	Confirmed Correction Date
SQX89-16R	Mifflin Twp EOC	E.2.	Feb. 1989	

The EOC was staffed by some personnel not identified in the plan (attachment A.3). The staffing and notification lists in the plan should be updated to reflect current personnel assignments. (Objective 2)

State Response:

Staffing and notification lists are updated quarterly, but this does not always ensure that all staff persons listed will be available. The fact that the position was filled with a qualified person should be viewed as a positive achievement.



AREA REQUIRING CORRECTIVE ACTION

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Problem ID	Location/Activity	NUREG Element	Proposed Correction Date	Confirmed Correction Date
SQX89-17R	North Centre Township EOC	E.2.	June 1990	

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The Public Works/Resource Management Services function identified in the plan (Section V.H. and SOP H) was not addressed, as the position was not staffed, nor were the responsibilities formally assigned to another staff member. Township officials should recruit and train someone to fill this position, or formally assign the duties to another staff member. The assignment of personnel to perform all plan-designated functions should be demonstrated in future exercises. (Objective 2)

State Response:

Township officials will endeavor to recruit and train another person to fill the Public Works/Resource Management Services position.

AREA REQUIRING CORRECTIVE ACTION

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Problem ID	Location/Activity	NUREG Element	Proposed Correction Date	Confirmed Correction Date
SQX89-18R	North Centre Township EOC	H.3.	June 1991	

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The EOC was not equipped with an emergency generator. A backup electrical power source should be obtained for the EOC. (Objective 5)

State Response:

The purchase of an auxiliary generator is scheduled during the Act 147 fund fiscal year 1990-1991. In the interim, a portable generator will be provided by Columbia County upon request.

AREA REQUIRING CORRECTIVE ACTION

Problem ID	Location/Activity	NUREG Element	Proposed Correction Date	Confirmed Correction Date
SQX89-19R	North Centre Township EOC	J.10.j.	Feb. 1989	

Sufficient Township personnel were not available to man TCPs; officials reported that State Police would be needed for this function. In accordance with the exercise objectives, Township officials should have demonstrated actual manning of the one TCP for which they have responsibility. Township officials should re-evaluate their resources to perform this duty and make any necessary planning changes should this responsibility be changed; if it remains a Township responsibility, it should be demonstrated in future exercises. (Objective 20)

State Response:

Present planning calls for all TCPs to be manned by Township personnel if available. PA State Police are used as a backup if Township resources are not available. In this case, Township police were involved in another emergency. This procedure was exercised during the February 1989 drill. Township plans were reviewed and found to be adequate.



AREA REQUIRING CORRECTIVE ACTION

Problem ID	Location/Activity	NUREG Element	Proposed Correction Date	Confirmed Correction Date
SQX89-20R	South Centre Township EOC	A.1.b.	July 1989	

The emergency plan in use at the EOC (dated March 1987) was not the most recent version, as submitted by PEMA (dated June 1988). Township officials should obtain sufficient copies of the most recent version of their emergency plan. (Objective 3)

State Response:

The Township has adopted the most recent edition of the plan.

AREA REQUIRING CORRECTIVE ACTION

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Problem ID	Location/Activity	NUREG Element	Proposed Correction Date	Confirmed Correction Date
SQX89-21R	Luzerne County EOC	G.4.c.	Aug. 1989	

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The initial EBS message content was not adequate. PEMA provided instructions concerning EBS message content to the county EOCs, and Luzerne County officials limited their EBS message to that content. Consequently, the message did not include sufficient information concerning evacuation area boundaries and instructions on where to go and what to take, etc. The appropriate information has been pre-scripted and included in the County plans in Appendix 4. County officials should be sure to use these pre-scripted EBS messages in addition to any instructions regarding message content from PEMA. (Obj. 12)

State Response:

As pointed out above, sufficient information concerning evacuation area boundaries and instruction on where to go is included in the County plans. In the event of an actual incident, the information contained in the plans would be used. Luzerne County used the message content supplied by PEMA, and felt it was adequate for demonstration purposes.

This area requiring corrective action should be deleted for Luzerne County EOC and made applicable to the State EOC. Corrective action has been accomplished with the State EOC August, 1989.

AREA REQUIRING CORRECTIVE ACTION

Problem ID	Location/Activity	NUREG Element	Proposed Correction Date	Confirmed Correction Date
SQX89-22R	Ambulance (Luzerne County)	K.5.a,b	Continuous	

The ambulance crew did not demonstrate proper procedures for removing protective clothing. They removed foot coverings and overalls and then stepped on a contaminated area. Ambulance crew members should receive additional training concerning the proper removal of protective clothing. (Objective 6)

State Response:  
Additional training will be provided.



## AREA REQUIRING CORRECTIVE ACTION

Problem ID	Location/Activity	NUREG Element	Proposed Correction Date	Confirmed Correction Date
SQX89-23R	Geisinger Medical Center	K.5.b.	Feb. 1991	

Procedures for controlling contamination and measuring personnel exposure were not complete. One light switch and receptacle, and the return air ducts were not covered; the protective floor covering at the entrance to the room was too small; the area where the ambulance was met was not roped off and marked; and the hospital team did not have permanent record dosimeters. These provisions should be incorporated into the medical center procedures. (Objectives 6 & 24)

### State Response:

During the exercise, the emergency room was still open and treating patients, all precaution taken during an actual emergency should not be required for demonstration purposes during an exercise. As the emergency room was still open, it was necessary to keep the light switch and receptacle open. The return air duct for ventilation was covered inside the duct but could not be seen by the evaluator. The floor covering was considered adequate for demonstration purposes. The ambulance entrance could not be roped off during a drill since normal emergency ambulance traffic continued to arrive.

AREA REQUIRING CORRECTIVE ACTION

Problem ID	Location/Activity	NUREG Element	Proposed Correction Date	Confirmed Correction Date
SQX89-24R	Butler Twp EOC	A.2.a.	June 1989	

The message procedure, as specified in the plan (Attachment C-2), was not followed, as incoming messages were not logged and numbered. The EMC felt that this was unnecessary, as the EOC received hard copy of important messages. The EMC and staff should be aware that the verbal radio communications are primary notification, and hard copy is backup. All incoming and outgoing messages, both verbal and hard copy, should be logged and numbered in accordance with plan procedures. (Objective 3.)

State Response:

New procedures adopting the new "hard copy" message system are being implemented.

AREA REQUIRING CORRECTIVE ACTION

Problem ID	Location/Activity	NUREG Element	Proposed Correction Date	Confirmed Correction Date
SQX89-25R	Butler Twp EOC	J.10.j.	Continuous	

The traffic control officers were not adequately knowledgeable as to the destination of Township evacuees (ie- reception centers and mass care centers). Additional training should be provided to personnel responsible for traffic control. (Objective 20)

State Response:

Traffic control officer will be briefed at the EOC with all pertinent information prior to being dispatched.



AREA REQUIRING CORRECTIVE ACTION

Problem ID	Location/Activity	NUREG Element	Proposed Correction Date	Confirmed Correction Date
SQX89-26R	Conyngnam Boro EOC	J.10.J.	Feb. 1991	

The activation and manning of at least one traffic control post, as required by the exercise objectives, was not addressed. The municipal plan (Attachment D-2) designates 7 TCPs to be manned by Borough personnel. However, during the exercise, none of the TCPs were manned, or simulated as such. The TCP personnel were not alerted. In fact, no discussion regarding traffic control was conducted until the FEMA evaluator specifically questioned the EMC. The capability for establishing and manning the plan-designated traffic control responsibilities should be demonstrated in future exercises. (Objective 20)

State Response:

A traffic control point will be demonstrated during future exercises in accordance with exercise objectives.

AREA REQUIRING CORRECTIVE ACTION

Problem ID	Location/Activity	NUREG Element	Proposed Correction Date	Confirmed Correction Date
SQX89-27R	Conyngham Twp EOC	A.1.b	May 1989	

Within the last year, the Township has relocated its EOC from the Mocaqua Volunteer Fire Hall to the Township Building on Main Street. The current plan does not reflect this change (SOP A), and should be modified as necessary. (Objective 3)

State Response:

The plan was updated in May 1989 to reflect this change.

AREA REQUIRING CORRECTIVE ACTION

Problem ID	Location/Activity	NUREG Element	Proposed Correction Date	Confirmed Correction Date
SQX89-28R	Conyngham Twp EOC	J.10.d.	May 1989	

The list of non-ambulatory residents requiring ambulance assistance, maintained in the Township plan (Notification and Resource Manual, p.6) and EOC, dates back to March of 1988, and has not been updated within the last 6 months as required by SOP F. This list should be updated, and plans modified appropriately, as soon as possible. (Objective 18)

State Response:

The list has been updated and no changes were required.



AREA REQUIRING CORRECTIVE ACTION

Problem ID	Location/Activity	NUREG Element	Proposed Correction Date	Confirmed Correction Date
SQX89-29R	Conyngham Twp EOC	J.10.j.	Feb. 1991	

The activation and manning of at least one Traffic Control Point, as required by the exercise objectives, was not addressed. The plan (Attachment D-2) specifies that the Township is responsible for the manning of one TCP, but this was not demonstrated. In fact, no observable exercise play or discussion regarding the Township's traffic control responsibility occurred.

The capability for establishing and manning the plan-designated traffic control responsibilities should be demonstrated in future exercises. (Objective 20)

State Response:

A traffic control point will be demonstrated during future exercises in accordance with exercise objectives.

AREA REQUIRING CORRECTIVE ACTION

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Problem ID	Location/Activity	NUREG Element	Proposed Correction Date	Confirmed Correction Date
SQX89-30R	Hollenback Twp EOC	A.2.a.	June 1989	

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The message procedure, as specified in the plan (Attachment C-2), was not followed, as incoming messages from the County EOC were not transcribed onto message forms. The EMC and staff should be aware that the radio transmissions are the primary means of communication. All incoming messages, both verbal and hard copy, should be transcribed, and the time of receipt noted, in accordance with plan procedures. (Objective 3.)

State Response:

As this was the first test of the "hard copy" system, the County elected not to modify the message flow procedure prior to identifying any deficiencies with the new system. The message flow procedure will be reviewed and will address this problem. This was the only area where the procedure for the hard copy system must be revised.

AREA REQUIRING CORRECTIVE ACTION

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Problem ID	Location/Activity	NUREG Element	Proposed Correction Date	Confirmed Correction Date
SQX89-31R	Nanticoke City EOC	E.2.	May 1989	

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Personnel staffing five EOC positions were not those designated in the plan (attachment A.3). The staffing and notification lists in the plan should be updated to reflect current personnel assignments. (Objective 2)

State Response:

The Municipal Notification and Resource Manual is updated biannually. These changes occurred after the last update and were missed during the preparation for the exercise. All staffing and notification lists in the plan have been updated.



AREA REQUIRING CORRECTIVE ACTION

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Problem ID	Location/Activity	NUREG Element	Proposed Correction Date	Confirmed Correction Date
SQX89-32R	Nanticoke City EOC	H.3.	Feb. 1989	

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The EOC was not equipped with sufficient furniture, clock, and administrative supplies to adequately support emergency operations. This equipment should be provided. (Objective 5)

State Response:

Equipment is available, and will be utilized in future exercises. Municipal offices were being relocated at the time of the exercise and since it was an unannounced exercise, personnel were unable to utilize their regular facility.

AREA REQUIRING CORRECTIVE ACTION

Problem ID	Location/Activity	NUREG Element	Proposed Correction Date	Confirmed Correction Date
SQX89-33R	Nescopeck Boro ECC	A.2.a.	June 1989	

The message procedure, as specified in the plan (Attachment C-2), was not followed, as incoming and outgoing messages were not logged and numbered. The EMC felt that this was unnecessary, as the ECC received hard copy of important messages. The EMC and staff should be aware that the verbal radio communications are primary notification, and hard copy is backup. All incoming and outgoing messages, both verbal and hard copy, should be logged and numbered in accordance with plan procedures. (Objective 3.)

State Response:

New procedures adopting the new "hard copy" message system are being implemented.

AREA REQUIRING CORRECTIVE ACTION

Problem ID	Location/Activity	NUREG Element	Proposed Correction Date	Confirmed Correction Date
SQX89-34R	Nuangola Boro EOC	K.5.b	May 1989	

There was a discrepancy regarding the decontamination station to be utilized by Borough emergency workers. The Wright Township Fire Company was the location posted in the EOC, while the municipal plan (Attachment I-3) designates the Crestwood Area High School. The EMC stated that the former location is correct. The municipal plan should be modified accordingly. (Objective 6)

State Response:

This was a recent change (approximately 2 weeks before the exercise) and the plan will be changed to reflect the station at the Wright Township Fire Company. This change occurred after the last six month update, but was incorporated into the update in May, 1989.



AREA REQUIRING CORRECTIVE ACTION

Problem ID	Location/Activity	NUREG Element	Proposed Correction Date	Confirmed Correction Date
SQX89-35R	Nuangola Boro EOC	A.2.a	June 1989	

The message procedure, as specified in the plan (Attachment C-2), was not followed, as incoming messages were not logged and numbered. Even though the EOC received hard copy of important messages, the EMC and staff should be aware that the verbal radio communications are primary notification, and hard copy is backup. All incoming and outgoing messages, both verbal and hard copy, should be logged and numbered in accordance with plan procedures. (Objective 3.)

State Response:

New procedures adopting the new "hard copy" message system are being implemented.

AREA REQUIRING CORRECTIVE ACTION

Problem ID	Location/Activity	NUREG Element	Proposed Correction Date	Confirmed Correction Date
SQX89-36R	Shickshinny Boro EOC	J.10.e.	Feb. 1989	

Borough officials failed to administer KI to their emergency workers. The Secretary of Health's order for emergency workers to ingest KI was received from the County EOC, but this message was misinterpreted by the EMC as applying only to workers near the site boundary. The EOC staff, therefore, as well as route alert and traffic control personnel, did not receive the order. It should be noted that the hard copy of this message received by the EOC (Priority Message 5) clearly instructs all emergency workers to take KI. Appropriate officials should receive additional training regarding KI procedures, and the capability for administering KI should be demonstrated in future exercises. (Objective 16)

State Response:

The message text was "The Secretary of Health has authorized the taking of KI". The reason for this specific wording is because the State cannot order ingestion of any drug or medicine. The EMC and staff have received additional training regarding KI distribution and the administration of KI. This will be demonstrated in future exercises.

AREA REQUIRING CORRECTIVE ACTION

Problem ID	Location/Activity	NUREG Element	Proposed Correction Date	Confirmed Correction Date
SQX89-37R	Slocum Twp EOC	J.10.g.,h.	May 1989	

There were several discrepancies regarding the Township emergency plan: the staffing and notification lists in the plan were not up to date to include staff names and telephone numbers; the plan identifies the EOC relocation site for this township as Crestwood High School, while the EOC staff said it has always been the Davis Street Shopping Center; the plan identifies the need for 44 dosimetry kits, while the EMC reported that only 31 dosimetry kits are needed in Solcum Township; the plan identifies the emergency worker decontamination center as Crestwood High School, but that has recently been changed to the Wright Township Fire Station. These discrepancies should be resolved with the County and plans updated accordingly. (Objectives 2 and 6)

State Response:

Revisions and updates to the plan were accomplished during May 1989. The alternate EOC site is Crestwood High School and the monitoring station is the Wright Township Fire Station. The Davis Street Shopping Center is a reception center operated by the County.



AREA REQUIRING CORRECTIVE ACTION

Problem ID	Location/Activity	NUREG Element	Proposed Correction Date	Confirmed Correction Date
SQX89-38R	Lackawanna County Mass Care Center	J.12	July 1989	

The Monitoring/Decontamination Team did not display proper procedures for monitoring evacuees (Annex E, Appendix 5). One evacuee did not have the soles of his shoes monitored for possible contamination. Team members should receive additional training regarding radiological monitoring techniques. (Objective 21)

State Response:

Monitoring/Decontamination team members have been scheduled to receive additional training.

AREA REQUIRING CORRECTIVE ACTION

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Problem ID	Location/Activity	NUREG Element	Proposed Correction Date	Confirmed Correction Date
SQX89-39R	Northumberland County Mass Care	J.12	Sep. 1989	

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The Monitoring/Decontamination Team did not record the dosimeters' initial or subsequent readings because they did not have record-keeping forms. One member of the team needed additional overall training on radiological monitoring equipment and procedures. Record-keeping forms and further radiological training should be provided. (Objectives 6 and 21)

State response:

All members of the monitoring/decontamination team are scheduled to receive additional training. All required forms will be included with the dosimeters during future exercises.

AREA REQUIRING CORRECTIVE ACTION

Problem ID	Location/Activity	NUREG Element	Proposed Correction Date	Confirmed Correction Date
SQX89-40R	Northumberland County Mass Care	J.12	July 1989	

Inadequacies were identified concerning facilities and equipment as follows:

the survey meters used by the radiological monitoring team did not have calibration stickers (inside or outside the meters), and the shower/decontamination areas were accessible through a single door, which did not provide adequate separation between decontaminated and contaminated personnel. The meters should be calibrated, if necessary, and furnished with the appropriate calibration stickers; traffic patterns in and out of the showers should be modified to minimize the possibility for cross-contamination. (Objective 21)

State response:

PENA does not affix a calibration sticker on the inside or outside of the survey meters. The date of calibration is stamped on the battery rack inside the unit.

The traffic pattern to and from the shower areas will be modified to prevent contamination.



AREA REQUIRING CORRECTIVE ACTION

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Problem ID	Location/Activity	NUREG Element	Proposed Correction Date	Confirmed Correction Date
SQX89-41R	Schuylkill County Mass Care Center	J.12	Sep. 1989	

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The monitoring/decontamination team members at the mass care center were not sufficiently knowledgeable of the procedures for personnel monitoring and contamination control. Team members should receive additional training in these areas. (Objective 21)

State response:

Monitoring/decontamination teams are scheduled for additional training.

AREA RECOMMENDED FOR IMPROVEMENT

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Problem ID	Location/Activity	NUREG Element
SQX89-11	Field Monitoring Teams	1.8, 1.11.

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The survey instrument detectors were not enclosed in plastic. It is recommended that survey instrument detectors be enclosed in thin plastic bags in order to minimize the possibility of contamination. Spare bags should be provided to the teams. (Objective 7)

AREA RECOMMENDED FOR IMPROVEMENT

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Problem ID	Location/Activity	NUREG Element
SQX89-21	Field Monitoring Teams	1.8, 1.9.

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The Norristown 113 team did not demonstrate the procedures or equipment for decontaminating the air sampler filter holder prior to taking another sample. It is recommended that this procedure be adopted (as specified in FEMA REP-2), and the field teams provided with the appropriate supplies. (Objective 8)

AREA RECOMMENDED FOR IMPROVEMENT

Problem ID	Location/Activity	NUREG Element
SQX89-31	Joint Media Center	F.1.b

Minor message delays occurred (at times as long as thirty minutes for facsimile communications) because only two commercial phone lines were available in the Joint Media Center, and outgoing calls were routed through the Utility communications network in Allentown. It is recommended that more phone lines be established in the future, and that the routing of outgoing calls through the Utility's Allentown facility be discontinued. (Obj. 4)

AREA RECOMMENDED FOR IMPROVEMENT

Problem ID	Location/Activity	NUREG Element
SQX89-41	Columbia County EOC	H.3.

The County EOC consists of a number of small rooms, which tends to isolate some staff members from the operations area activities, including briefings, announcements, and the status board. It is recommended that county officials investigate the possibility of opening up the space, to provide a larger operations area. This would provide the staff direct access to operations activities and enhance information flow. (Objective 5)



AREA RECOMMENDED FOR IMPROVEMENT

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Problem ID	Location/Activity	NUREG Element
SQX89-51	Beaver Township EOC	A.1.b

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The EMC did not conduct periodic briefings of the staff, but conferred with staff members individually. The only general dissemination of information occurred via the status board. The EMC should conduct briefings of the entire staff to assure that important information is disseminated. (Objective 3)

AREA RECOMMENDED FOR IMPROVEMENT

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Problem ID	Location/Activity	NUREG Element
SQX89-61	Beaver Township EOC	F.1.

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The communications equipment was located within the operations area of the EOC. In order to minimize distraction, it is recommended that a separately partitioned area be established for communications. (Objective 3)

AREA RECOMMENDED FOR IMPROVEMENT

Problem ID	Location/Activity	NUREG Element
SQX89-7I	Luzerne County EOC	E.5.

Two press releases were drafted to provide information and instructions to the farmers; however, these messages were not pre-scripted. It is recommended that these messages be pre-scripted and included with other announcements in Appendix 4 of the County Plan. (Objective 13.)

AREA RECOMMENDED FOR IMPROVEMENT

Problem ID	Location/Activity	NUREG Element
SQX89-8I	Ambulance (Luzerne Co.)	A. 2

The paper that was used to line the ambulance to protect against the spread of contamination on ripped during transport of the victim. It is recommended that plastic covering be used to protect the vehicle. (Obj. 23)

AREA RECOMMENDED FOR IMPROVEMENT

Problem ID	Location/Activity	NUREG Element
SQX89-91	Conyngham Borough EOC	A. 2

The events/status log displayed on the EOC wall reflected the time that events occurred or were declared, rather than received. It is recommended that the Borough distinguish actual times of events from the times the EOC receives communications about the events, so as to enhance local tracking of the status of emergency operations. (Objective 3)

AREA RECOMMENDED FOR IMPROVEMENT

Problem ID	Location/Activity	NUREG Element
SQX89-101	Hollenback Township EOC	H.3.

The EOC did not include a large map of the 10-mile EPZ. It is recommended that a large map of the entire EPZ be posted. (Objective 5.)



### AREA RECOMMENDED FOR IMPROVEMENT

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Problem ID	Location/Activity	NUREG Element
SQX89-111	Hunlock Township EOC	D.3.

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The Emergency Classification Levels were not displayed in the EOC as specified by the plan (SOP A.3.2.h). As the ECL's literally trigger emergency actions at all response levels, it is recommended that they be prominently displayed in view of the entire staff. (Objective 3)

### AREA RECOMMENDED FOR IMPROVEMENT

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Problem ID	Location/Activity	NUREG Element
SQX89-121	Hunlock Township EOC	H.3.

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The use of visual support materials (displays) in the EOC was minimal. Only a Township road map was displayed, and the status board was not updated with key events in a timely matter. Enhanced displays (a 10-mile EPZ area map, or at least a local map depicting access and traffic control posts, alerting routes, and reception center) would benefit the staff. Greater attentiveness to the status board will help to ensure that all staff members are kept abreast of events and emergency status. Although these issues did not negatively impact emergency operations during the exercise, it is recommended that the Township develop more enhanced display materials, and emphasize greater attentiveness in their future use. (Objective 5)

AREA RECOMMENDED FOR IMPROVEMENT

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Problem ID	Location/Activity	NUREG Element
SQX89-13I	New Columbus Boro EOC	D.3.

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The Emergency Classification Levels were not posted in the EOC as specified by the plan (SOP A). The ECLs should be prominently displayed and updated as each level occurs, so that all EOC staff are aware of the current ECL at any given time. (Objective 3.)

AREA RECOMMENDED FOR IMPROVEMENT

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Problem ID	Location/Activity	NUREG Element
SQX89-14I	New Columbus Boro EOC	A.1.b.

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The EMC did not perform periodic briefings of the EOC staff. It is recommended that briefings and status updates involving all staff members be a part of the management of the EOC. (Objective 3.)

### AREA RECOMMENDED FOR IMPROVEMENT

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Problem ID	Location/Activity	NUREG Element
SQX89-151	Newport Township EOC	H.3.

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An area map illustrating evacuation routes and traffic control points was not posted in the EOC. Although this did not have any observable negative impact on emergency operations during the exercise, a map of this nature is recommended for purposes of enhancing emergency management operations. (Objective 5)

### AREA RECOMMENDED FOR IMPROVEMENT

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Problem ID	Location/Activity	NUREG Element
SQX89-161	Nuangola Borough EOC	D.3.

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The Emergency Classification Levels were not prominently displayed in the EOC. The ECLs were recorded on the events/status chart, but could not be read from the various staff positions. It is recommended that the ECLs be more prominently displayed, such as by use of placarding or highlighting. (Objective 3)



### AREA RECOMMENDED FOR IMPROVEMENT

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Problem ID	Location/Activity	NUREG Element
SQX89-171	Nuangola Borough EOC	H.3.

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The EOC was not supplied with a map depicting the entire 10 mile EPZ. Such a map is recommended to enhance the staff's understanding of incident development, protective actions, and evacuation processes by providing a broader perspective of the emergency response.  
(Objective 5)

### AREA RECOMMENDED FOR IMPROVEMENT

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Problem ID	Location/Activity	NUREG Element
SQX89-181	Lackawanna County Reception Center	J.12

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The strip map which was available for evacuees arriving at the Davis Street Shopping Center was lightly hand-drawn and was difficult to read. It is recommended that the map be improved to provide greater clarity of names, street intersections and distance to the Mass Care Centers.  
(Objective 21)

AREA RECOMMENDED FOR IMPROVEMENT

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Problem ID	Location/Activity	NUREG Element
SQX89-191	Northumberland County EOC	D.3.

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The recently-appointed Emergency Management Coordinator effectively implemented County plans and procedures but was not fully cognizant of the Emergency Classification Level (ECL) terms during evaluator debriefing. The status board had each ECL with sub-categories of tasks to achieve, so the appropriate actions were taken. It is recommended that the EMC receive further training. (Objective 1)

AREA RECOMMENDED FOR IMPROVEMENT

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Problem ID	Location/Activity	NUREG Element
SQX89-201	Northumberland County Mass Care	A.2.a.

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Decontamination teams from both the County and Milton Borough were working independently at the Reception/Mass Care Centers. It is recommended that this activity be coordinated by the respective EMCs to maximize the efficient use of personnel. (Objectives 21 and 22)

AREA RECOMMENDED FOR IMPROVEMENT

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Problem ID	Location/Activity	NUREG Element
SQX89-211	Wyoming County Mass Care Center	J.12

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The monitoring team members would benefit from additional training and familiarization with personnel monitoring techniques. It is recommended that such training be provided. (Objective 21)



### C. STATUS OF PRIOR ISSUES

The following previous inadequacies were identified at the last Susquehanna exercise, conducted April 29, 1987. All were classified as Areas Requiring Corrective Action. Each item is followed by a discussion of findings, as demonstrated during the February 22, 1989 exercise.

#### State EOC

1. The State EOC's notification of the Protective Action Recommendation (PAR) to Luzerne County during the General Emergency classification was not timely, taking approximately twenty minutes. (See Luzerne County EOC Report.)

Status: Corrected. The State notified both risk Counties of Protective Action Recommendations in a timely manner.

2. The State Plan calls for the utilization of a dedicated phone line for linkage with the BRP and participating counties. The problem stated in item 1 could have been mitigated if the dedicated line feature had been utilized.

Status: Not Corrected. The use of the dedicated, conferencing line by the State EOC was problematic. (See Objective 4)

#### Accident Assessment (Bureau of Radiation Protection)

3. In certain instances in the past, BRP may have been permitted to preposition staff. Because of this, there may have been a misunderstanding that this is permissible at all exercises. That is not the case. After hour or unannounced exercises are the only time when activation of BRP can be reasonably tested, as at exercises conducted during regular business hours, BRP staff is already on-hand. At all after hour and unannounced exercises, activation of BRP staff needs to be demonstrated.

Status: Corrected. No prepositioning was observed on part of BRP in this unannounced exercise.

4. After the protective action recommendation is made, BRP staff should remain available until the exercise is formally terminated or until it is mutually agreed that their involvement is no longer needed.

Status: Corrected. The appropriate BRP staff participated through the termination of the exercise.

## Emergency Operation Facility

5. The BRP engineer left Harrisburg before the Alert classification was made. At that time, the decision to activate the EOF had not been made by the licensee. "Real time" response by BRP should be demonstrated at some point in order to evaluate the effect a "real time" arrival has on the conduct of BRP operations.

Status: Corrected. The BRP staff were notified and responded to the EOF in real time.

6. Aggressive questioning of the RM by the BRP engineer hampered the turnover of command and control from the Emergency Director (ED) in the Technical Support Center to the RM in the EOF. The BRP engineer insisted on asking questions of the ED during the turnover conference call when a more appropriate time to ask questions would have been after the turnover took place. The role of State involvement during activation of the EOF needs to be more clearly defined. In fact, if the BRP engineer was activated in a "real time" sequence, this issue might not be a concern as the BRP representative could still be in transit.

Status: Corrected. The BRP engineer worked well with the EOF staff. Questions, when asked, were appropriate and did not disrupt evolutions.

7. Communications between the RM and the BRP engineer were poor. For example:

During the 2120 declaration of a General Emergency, the RM stated that thyroid dose to the general public exceeded protective action guidelines. The RM chose not to make a protective action recommendation until plant conditions could be assessed further. At 2125, the BRP engineer relayed the thyroid dose information to BRP headquarters and an evacuation was ordered.

At approximately 2135, the RM was informed that an evacuation was in progress. This action is certainly a State prerogative; however, the RM was not consulted on the action taken. At approximately 2140, the BRP engineer informed the RM that the sirens had been sounded (simulated) at 1925. In fact the siren activation had been simulated at approximately 2025, but this information was not received by the RM.

an argument between the RM and the BRP representative over the method used to determine dose projections needed for making protective action recommendations resulted in both parties being distracted from their primary duties.

The reasons for these communications difficulties were not assessed. However, these difficulties along with an understanding on the part of both parties as to their roles and responsibilities during an emergency, need to be addressed and corrected as soon as possible, and adequately demonstrated at the next exercise.

Status: Corrected. Communications and coordination were good between the RM and BRP representative. Information was freely shared, and the BRP staff was fully involved in all EOF briefings.

#### Traffic & Access Control

10. No support for Traffic and Access Control has been demonstrated by Penn DOT. By not participating in exercises it is not clear whether the necessary traffic control devices could be delivered to the required locations in a timely fashion. This procedure should be demonstrated at least once during the six-year period provided by NUREG-0654.

Status: Not Corrected. Although Penn DOT participated at the State level, it did not provide staff members at the risk Counties, as prescribed by the State and County plans. (See Objective 2, State EOC)

11. Participating PSP were not issued or, just as important, were not aware of the use of TLDs or KI pills. The teams (4 officers) were totally unaware of the need for, and value of, protective clothing. These same officers were similarly unaware of the protection afforded by staying inside of a closed vehicle (when possible). Further emphasis is needed in the area of radiological exposure control.

Status: Not Corrected. Some of the participating Troopers were not briefed or properly equipped with dosimetry. (See Objective 6)



**Medical Services, Luzerne County (Hospital and Ambulance Demonstrations)**

13. Several crew members removed the contaminated individuals from the ambulances without the benefit of protective clothing, including gloves. In some cases, improper decontamination techniques were demonstrated by the crews, such as removing protective clothing in the wrong order and remaining in the contaminated area after removing contaminated clothing. Additional training in radiological exposure control techniques would be beneficial for the ambulance crews.

Status: Not Corrected. Removal of protective clothing by the participating ambulance crew was problematic, indicating that further training is needed. (See Objective 6)

**Luzerne County EOC**

14. The Luzerne County Transportation Officer and his deputy were well trained and knowledgeable of the responsibilities associated with their positions. Resources necessary to provide all types of transportation to the evacuees in the EPZ are clearly identified in the plan. However, the tasks necessary to ensure the availability of these transportation resources were simulated. Simulation of the procurement of transportation resources makes it very difficult to evaluate the capability to provide the resources necessary to evacuate the EPZ. An example of this is Dorrance Township who requested several unmet needs which were never responded to by County staff members. It is recommended that all actions up to actual deployment of resources be demonstrated during the next full participation exercise.

Status: Corrected. All participating bus companies were placed on standby at the Alert phase. Buses were actually assigned to specific locations. Only the physical deployment of this resource was simulated.

**Luzerne County Reception & Mass Care**

15. The staff were not aware of any formal procedures for obtaining unmet needs, i.e., traffic control personnel and additional transportation if necessary. They stated they would contact local township officials for traffic control and assumed other evacuees would assist those without transportation. Additional training in plan familiarity would enhance the overall operation at the reception center.

Status: Corrected. The new manager was aware of formal procedures for obtaining unmet needs. The plan is available, and he was familiar with its provisions.

### Decontamination Station, Luzerne County

16. Simulation should be kept to a minimum for as many actions as practical.

Status: Corrected. Simulation was minimal.

17. At future exercises 24-hour staffing should be demonstrated, at a minimum, by presentation of a roster.

Status: Corrected. Although a shift change was not an objective of this exercise, 20 individuals participated in the exercise at the Decontamination Station, clearly indicating the ability for 24 hour staffing.

### Butler Township EOC (Luzerne Co.)

23. Since notification and mobilization of staff was a planned objective of the exercise, pre-positioning of this EOC staff resulted in no evaluation of this objective. The EMC should only act on directions from those sources identified in the plans.

Status: Corrected. Notification and mobilization of the staff was adequately demonstrated without any indication of pre-positioning.

### Dorrance Township EOC

24. The Township did not demonstrate the capability to staff two 12-hour shifts of key personnel identified in the plan. Three positions (primary key staff) were manned by deputy or substitute personnel. The substitute personnel were not officially identified in the plan. One position (police) was not filled at all. The EMC did manage to activate substitute personnel by the time Site Area Emergency was declared, who were capable, well-trained individuals. The plan should be updated to reflect those people who are available and willing to respond to an emergency.

Status: Not Corrected. The objective to demonstrate 24 hour staffing (Objective 34) was not an objective of this exercise. Consequently, the EOC did not activate two full shifts or conduct a shift change.

### Hunlock Township EOC

25. The Hunlock Township EOC staff displayed confusion over the Governor's Declaration of Disaster Emergency and the siren and EBS

activation in conjunction with the Declaration. The municipal EOC staff interpreted the Disaster Emergency to be General Emergency and that siren and EBS activation is accomplished only when protective actions are directed. The County and State Emergency Management Agencies should provide additional training on the reasons for a Disaster Emergency Declaration, the difference between that declaration and a General Emergency classification, and when sirens and EBS can be activated.

Status: Corrected. The staff understood the difference between the Governor's Declaration of a Disaster Emergency and the General Emergency Classification. Upon the Governor's declaration during the exercise, the EMC advised the staff of this development and stated that no immediate or particular action needed to be taken because of it.

#### Nescopeck Township EOC

26. The State observer tended to act as a participant in the exercise; however, not enough to skew the overall results. There are no provisions in any of the State, County or municipal plans for involvement by State representatives in municipal emergency response. If this approach is to be considered, it should be incorporated in the appropriate plans. Otherwise, State representatives should only observe and evaluate municipal performance.

Status: Corrected. The State observer was objective and properly allowed the exercise to develop without interfering with EOC decision making or operations.

27. The Nescopeck Township EOC staff displayed confusion over the Governor's Declaration of Disaster Emergency and the siren and EBS activation in conjunction with the Declaration. The municipal EOC staff interpreted the Disaster Emergency to be General Emergency and that siren and EBS activation is accomplished only when protective actions are directed. The County and State Emergency Management Agencies should provide additional training on the reasons for a Disaster Emergency Declaration, the difference between that declaration and a General Emergency classification, and when sirens and EBS can be activated.

Status: Corrected. The EOC staff clearly understood the difference between the Governor's declaration, and the General Emergency Classification. The EOC properly responded to the ECL's, and conducted route alerting measures in compliance with the County's directive regarding the sounding of the siren.

#### Columbia County EOC

29. At the first Alert and Notification system activation, the



Columbia County sirens were sounded about two minutes later than the time specified by PEMA, due to confusion in coordinating with Luzerne County. The coordination procedure should be reviewed, with the goal of eliminating confusion and decreasing coordination time.

Status: Corrected. Siren activation occurred precisely at the time specified, and was properly coordinated with Luzerne County.

30. Columbia County officials acknowledged that the County still does not have an adequate supply of low-range (O-20R) self-reading dosimeters. The County should obtain the appropriate number of each dosimeter for distribution to County and municipal emergency workers.

Status: Corrected. The County has been provided with a sufficient quantity of low-range dosimeters, which have been pre-distributed to risk municipalities.

#### Lycoming County EOC

32. The prior inadequacy regarding the lack of demonstration of the Reception and Mass Care Centers was not addressed during this exercise. This item needs to be addressed at the next Susquehanna exercise.

Status: Corrected. Reception and Mass Care Centers were adequately demonstrated.

33. During presentation of the County's plan, no comprehensive process to ensure the monitoring of all evacuees using the mass care facility was presented, although the plan states that monitoring and decontamination will be conducted at the Mass Care Centers. The County presented a procedure that would monitor vehicles and individuals (if they wished) at the reception center, or the monitoring of individuals only (once again, if they wish) at the mass care centers, with decontamination taking place at the Montoursville Fire Department. A comprehensive and consistent plan needs to be demonstrated by the County at the next REP exercise.

Status: Corrected. The exercise demonstration indicated the existence of an effective plan wherein vehicles would be monitored and decontaminated at the Reception Center, while individuals in contaminated vehicles needing decontamination would be bussed to the Decontamination Center at the Mass Care Center for monitoring.

#### Union County EOC

34. The next exercise should include a full activation of the Union County EOC staff in order to provide the basis for a more thorough evaluation of their capabilities. This was an inadequacy from the previous exercise.

Status: Corrected. The Union County EOC was fully activated and did an excellent job. They also used a computer program with graphics for Mass Care, Space Available, Air Flow patterns, Census Information in the 10-mile and 50-mile radius of evacuation, etc.

#### Union County Reception/Mass Care Center

35. At the next full participation exercise involving Union County, the reception/mass care center should be fully staffed. As noted, this was an inadequacy from the previous exercise. Objective 15 calls for the demonstration of "the operation of one reception center and one mass care center in each of the . . . support counties except Montour and Schuylkill Counties." FEMA feels that "operation" means demonstrating response operations as realistically as possible, to include full staffing.

Status: Corrected. The Mass Care and Reception Center was fully staffed and operational.

36. The monitoring team assistant should receive further training in procedures for decontamination monitoring.

Status: Corrected. The monitoring team consisted of a Radiological Officer and two monitors who performed the surveys successfully.

APPENDIX ONE

PARTICIPATING JURISDICTIONS

Pennsylvania Emergency Management Agency and other appropriate State Agencies

Columbia County

Beaver Township  
Berwick Borough  
Briar Creek Township  
Fishing Creek Township  
Mifflin Township  
North Centre Township  
South Centre Township

Luzerne County

Black Creek Township  
Butler Township  
Conyngam Borough  
Conyngam Township  
Dorrance Township  
Hollenback Township  
Hunlock Township  
Huntington Township  
Nanticoke City  
Nescopeck Borough  
Nescopeck Township  
New Columbus Borough  
Newport Township  
Nuangola Borough  
Salem Township  
Shickshinny Borough  
Slocum Township  
Sugarloaf Township  
Union Township

Support Counties

Lackawanna County  
Lycoming County  
Northumberland County  
Schuylkill County  
Union County  
Wyoming County



APPENDIX TWO  
SUSQUEHANNA EXERCISE EVALUATOR ASSIGNMENTS

Observers-at-Large J. McCarey (FEMA)

PENNSYLVANIA

State EOC	C. Saricks (ANL)
Public Information	E. Ronne (ANL)
Accident Assessment	W. Belanger (EPA)
EOF	C. Conklin (NRC)
Field Air Sampling Teams	N. Simonin (ANL)
Traffic/Access Control	W. Adams (DOT)
Joint Media Center	H. Laine (FEMA)

RISK JURISDICTIONS

Columbia County

EOC	S. Hopkins (FEMA)
	A. Olmeda (FEMA)
	A. Lookabaugh (ANL)
Reception/Mass Care Centers	G. Goforth (CPR)
Emergency Worker Decontamination	C. Herzenberg (ANL)

Municipal EOCs

Beaver Township	E. Hakala (ANL)
Berwick Borough	D. Hall (FEMA)
Briar Creek Borough	J. Benn (FEMA)
Briar Creek Township	H. Skoczalek (FEMA)
Fishing Creek Township	H. Fish (DOE)
Mifflin Township	N. Wiles (FEMA)
North Centre Township	E. Taylor (FEMA)
South Centre Township	A. Henryson (FEMA)

Luzerne County

EOC	J. Lamb (FEMA)
	S. Reagle (FEMA)
	J. Daniels (ANL)
Reception/Mass Care Centers	J. Staroba (ANL)
Emergency Worker Decontamination	C. Klimczak (ANL)
Medical Service	F. Gill (HHS)

Municipal EOCs (Luzerne County)

Black Creek Township	J. Mitrani (ANL)
Butler Township	T. Carroll (ANL)
Conyngham Borough	R. Shapiro (FEMA)
Conyngham Township	N. Furth (CPR)
Dorrance Township	E. Sims (FEMA)
Hollenback Township	R. Thomson (ANL)
Hunlock Township	A. Teotia (ANL)
Huntington Township	S. Nelson (ANL)
Nanticoke City	M. Frengs (FEMA)
Nescopeck Borough	M. Freeman (FEMA)
Nescopeck Township	J. Connolly (FEMA)
New Columbus Borough	J. Moore (ANL)
Newport Township	R. Linck (FEMA)
Nuangola Borough	S. Fina (FEMA)
Salem Township	E. Robinson (ANL)
Shickshinny Borough	J. Schuback (FEMA)
Slocum Township	S. Adukaitis (FEMA)
Sugarloaf Township	W. Brzozowski (FEMA)
Union Township	D. Thomas (FEMA)

SUPPORT COUNTIES

Lackawanna County

EOC, Reception Center, Mass Care Center P. Weber (FEMA)

Lycoming County

EOC, Reception Center, Mass Care Center D. Petranech (ARC)

Northumberland County

EOC, Reception Center, Mass Care Center W. Knoerzer (ANL)

Schuylkill County

EOC, Reception Center, Mass Care Center F. Wilson (ANL)

Union County

EOC, Reception Center, Mass Care Center C. Hunckler (ANL)

Wyoming County

EOC, Reception Center, Mass Care Center D. Hulet (ANL)

APPENDIX THREE  
BRIAR CREEK BOROUGH REMEDIAL EXERCISE  
June 1, 1989

BACKGROUND

On February 22, 1989 a full participation radiological emergency response exercise was held for the Susquehanna Steam Electric Station. A Deficiency was identified for Briar Creek Borough because officials of that jurisdiction did not participate, reportedly due to illness. By not participating, Borough personnel failed to demonstrate the capability to accomplish the applicable exercise objectives in a manner consistent with the Borough's emergency response plan. As a consequence, there was no reasonable assurance that Briar Creek Borough emergency officials could take protective measures to assure the health and safety of the public within the community.

Federal evaluators identified the Deficiency during the February 24, 1989 exercise participants meeting (held to provide the participants with an initial evaluation), and indicated the probable need for remedial actions. FEMA Region III informed Pennsylvania officials in writing of the need for a remedial exercise, to be held within 120 days of the exercise, or not later than June 22, 1989. On May 23, 1989 the Pennsylvania Emergency Management Agency submitted a scenario for a remedial exercise for Briar Creek Borough, scheduled for the week of May 28, 1989.

DEFICIENCY TO BE CORRECTED

The Deficiency is identified in the SUMMARY LIST OF ISSUES, beginning on page 94 of this report, as follows:

<u>Problem ID</u>	<u>Location/ Activity</u>	<u>NUREG Element</u>
SQX89-1D	Briar Creek Borough EOC	N.1.b

OBJECTIVES

The objectives for the remedial demonstration were as follows:

Objectives 1, 2, 3, 4, 5, 6, 12, 16, 18, 36.

These are the exercise objectives applicable to the Borough, and which were to have been evaluated during the February 22 exercise.

PARTICIPANTS

Actions of Briar Creek Borough officials at the Emergency Operations Center were evaluated. Columbia County Emergency



Communications Center personnel were not evaluated, as they participated in order to support the exercise in a realistic manner.

#### FINDING

Briar Creek Borough emergency management officials responded promptly and in accordance with the plan, and the ability to respond to an unannounced exercise was demonstrated. The EOC positions, as specified in the plan, were staffed. The Emergency Management Coordinator demonstrated effective leadership, and the staff members were adequately trained and knowledgeable, and performed their assigned duties effectively. Elected officials participated, as the Mayor and most members of Council are on the EOC staff. The EOC provided adequate space, lighting and furnishings, and was equipped with an emergency generator. Significant EOC improvements, including the addition of rest rooms and kitchen, were nearing completion. These will improve the long-term habitability of the facility. EOC security was established by an auxiliary police officer. Effective communications were demonstrated, via emergency management radio and telephone. A RACES operator and assistant demonstrated secondary capability. Message logs and forms were used, in accordance with the plan. A status board was also maintained. Route alerting was performed by a team provided by Berwick Borough, as per agreement. Proper preparation and dispatch of the team was demonstrated. No hearing-impaired or non-English speaking residents have been identified, obviating the need for special alerting methods. The ability and resources for evacuating the population were demonstrated. Arrangements for appropriate vehicles were properly coordinated with the County EOC. The designated dosimetry, potassium iodide, and record forms had been predistributed to the EOC, and the Radiological Officer distributed them to the emergency workers and provided appropriate instructions. Officials simulated relocating to their designated EOC, located outside the 10-mile Emergency Planning Zone, following the evacuation of the general public.

#### STATUS

The capability for performing Objectives 1, 2, 3, 4, 5, 6, 12, 16, 18, and 36, to the extent required by the emergency response plan, was demonstrated. The Deficiency has been resolved.

Pennsylvania Power and  
Light Company

2

FEB 20 1990

Enclosure: As stated


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
A. R. Sabol, Manager, Nuclear Quality Assurance  
J. M. Kenny, Licensing Group Supervisor  
R. G. Byram, Superintendent of Plant - SSES  
S. B. Ungerer, Manager, Joint Generation Projects Department  
J. D. Decker, Nuclear Services Manager, General Electric Company  
B. A. Snapp, Esquire, Assistant Corporate Counsel  
H. D. Woodeshick, Special Office of the President  
F. C. Tilton, III, Allegheny Electric Cooperative, Inc.  
Public Document Room (PDR)  
Local Public Document Room (LPDR)  
Nuclear Safety Information Center (NSIC)  
NRC Resident Inspector  
Commonwealth of Pennsylvania

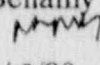
bcc:

Region I Docket Room  
Management Assistant, DRMA (w/o encl)  
P. Swetland, DRP  
M. Thadani, NRR  
J. Dyer, EDO

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