SUPPLEMENT TO THE POST EXERCISE ASSESSMENT VERSION 2

November 10 to December 3, 1986, Remedial Exercise of the Radiological Emergency Preparedness Plans of Westchester, Rockland, and Orange Counties

and the

February 18, 1987
Remedial Exercise of the Radiological Emergency Preparedness Plans of Westchester County

for the

INDIAN POINT NUCLEAR POWER STATION

September 16, 1987

Federal Emergency Management Agency

Region II

26 Federal Plaza, New York, N.Y. 10278

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TABLES (Cont'd)

4.1 Indian Point Nuclear Power Station, Status of Objectives -- New York State 103

4.2 Indian Point Nuclear Power Station, Status of Objectives -- Southern District 107

4.3 Indian Point Nuclear Power Station, Status of Objectives -- EOF 109

4.4 Indian Point Nuclear Power Station, Status of Objectives -- Joint News Center 111

4.5 Indian Point Nuclear Power Station, Status of Objectives -- Westchester County 112

4.6 Indian Point Nuclear Power Station, Status of Objectives -- Rockland County 120

4.7 Indian Point Nuclear Power Station, Status of Objectives -- Orange County 128

4.8 Indian Point Nuclear Power Station, Status of Objectives -- Putnam County 136

4.9 Indian Point Nuclear Power Station, Status of Objectives -- Dutchess County 144

4.10 Indian Point Nuclear Power Station, Status of Objectives - Bergen County 146

CONTENTS

INTRODUCTION 1

I. SUMMARY OF DEFICIENCIES AND AREAS REQUIRING CORRECTIVE ACTION 2

II. STATUS OF OBJECTIVES 102

TABLES

3.1 Indian Point Nuclear Power Station, Summary of Deficiencies and Areas Requiring Corrective Action -- New York State 4

3.2 Indian Point Nuclear Power Station, Summary of Deficiencies and Areas Requiring Corrective Action -- Southern District 9

3.3 Indian Point Nuclear Power Station, Summary of Deficiencies and Areas Requiring Corrective Action -- EOF 10

3.4 Indian Point Nuclear Power Station, Summary of Deficiencies and Areas Requiring Corrective Action -- Joint News Center 12

3.5 Indian Point Nuclear Power Station, Summary of Deficiencies and Areas Requiring Corrective Action -- Westchester County 17

3.6 Indian Point Nuclear Power Station, Summary of Deficiencies and Areas Requiring Corrective Action -- Rockland County 40

3.7 Indian Point Nuclear Power Station, Summary of Deficiencies and Areas Requiring Corrective Action -- Orange County 63

3.8 Indian Point Nuclear Power Station, Summary of Deficiencies and Areas Requiring Corrective Action -- Putnam County 78

3.9 Indian Point Nuclear Power Station, Summary of Deficiencies and Areas Requiring Corrective Action -- Dutchess County 98

3.10 Indian Point Nuclear Power Station, Summary of Deficiencies and Areas Requiring Corrective Action -- Bergen County 99

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INTRODUCTION

There have been four full-scale exercises for the Indian Point Nuclear Power Station (IPNS): March 3, 1982, March 9, 1983, November 28, 1984, and June 4, 1986. There also was an exercise of the State Interim Plan for compensating measures for Rockland County on August 24-25, 1983 and remedial exercises on April 10, 1984.

A series of remedial exercises were conducted to determine if deficiencies found during the June 4, 1986 exercise had been corrected. A Post Exercise Assessment, dated June 23, 1987, was written discussing the results of the remedial exercises. This document is a supplement to the June, 1987 report.

I. SUMMARY OF DEFICIENCIES AND AREAS REQUIRING CORRECTIVE ACTION

FEMA classifies exercise inadequacies as deficiencies or areas requiring corrective action. The definitions of exercise inadequacies are as follows:

> **Deficiencies** are demonstrated and observed inadequacies that would 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 a nuclear power facility in the event of 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.
>
> **Areas Requiring Corrective Actions** are demonstrated and observed inadequacies of State and local government 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.

The following tables list deficiencies or areas requiring corrective action based on the findings and recommendations of federal observers at the remedial exercises of the radiological emergency preparedness plans for the Indian Point Nuclear Power Plant held between November 10, 1986 through December 3, 1986 and on February 18, 1987. These evaluations are based on the applicable planning standards and evaluation criteria set forth in NUREG-0654-FEMA-1, Rev. 1 (Nov. 1980), and objectives for the remedial exercise agreed upon by the State, FEMA, and the RAC.

The regional Director of FEMA is responsible for certifying to the FEMA Associate director, State and Local Programs and Support, Washington, D.C., that any deficiencies or areas requiring corrective actions have been corrected and that such corrections have been incorporated into the plans as appropriate.

FEMA requests that both the State and local jurisdictions submit a schedule of actions they have taken or intend to take to correct these inadequacies, FEMA recommends that a detailed plan, including dates of completion for scheduling and implementing recommendations, be provided if corrective actions cannot be instituted immediately.

Areas requiring corrective action which were observed at the November 10 through December 3, 1986 and the February 18, 1987 remedial exercises for the Indian Point Nuclear Power Plant, as well as outstanding deficiencies or areas requiring corrective action from previous exercise, require that a schedule of corrective actions be developed. Tables 3.1 through 3.10 summarize recommendations to correct those deficiencies or areas requiring corrective action. The current status of all recommendations is indicated.

In addition, the tables include the conclusions and recommendation from the Indian Point Interim Finding dated April 9, 1987.

TABLE 3.1 INDIAN POINT NUCLEAR POWER STATION -- SUMMARY OF DEFICIENCIES AND AREAS REQUIRING CORRECTIVE ACTION
July 7, 1987
NEW YORK STATE

No.	Description and Recommended Corrective Action	NUREG-0654 FEMA-REP-1 Rev. 1, Reference[a]	Class[b]	Issue Identified						Present Status[c]
				Exercise 3/3/82	Exercise 3/9/83	Exercise 11/28/84	Remedial Exercise 4/10/85	Exercise 6/4/86	Remedial Exercise 11/10-12/3/86	
1.	The specific function of the Bergen County liaison positioned in the Rockland County is not well defined. Appropriate information was not being transmitted by the liaison representative to the Bergen County EOC from Rockland County. Lack of prompt information from Rockland County limited the emergency response capabilities of Bergen County. Representatives of New York State and Rockland County should meet with representatives of Bergen County and New Jersey State to establish the responsibilities of the Bergen County liaison.	A.2.a F.1	Def.					X		C
2.	Personnel participating in the medical drill in Putnam County expressed disappointment with the medical scenario provided by the State. Contamination levels were so low as to be almost insignificant, there were no changes in the patient's vital signs, and the patient was not moulaged. The scenario did not adequately test the hospital's capabilities. A more detailed medical drill scenario including changing vital signs after treatments, higher contamination levels so that contamination is a gre[illegible] concern, moulage of the	L.1	ARCA					X		I

TABLE 3.1 (Cont'd)

No.	Description and Recommended Corrective Action	NUREG-0654 FEMA-REP-1 Rev. 1, Reference[a]	Class[b]	Issue Identified						Present Status[c]
				Exercise 3/3/82	Exercise 3/9/83	Exercise 11/28/84	Remedial Exercise 4/10/85	Exercise 6/4/86	Remedial Exercise 11/10-12/3/86	
	patient, and use of a State controller to provide contamination levels and medical information should be provided at the next full-scale exercise.									
3.	The various jurisdictions had difficulties in reconciling dose projections made prior to any actual radioactive release. Different jurisdictions appear to have used different procedures for estimating source terms based on plant status. In Rockland County, attempts to reconcile differences in dose projections were hampered by the unavailability of a complete set of dose projection procedures. The state should assume the responsibility of ensuring the availability and use of a uniform set of dose projection procedures for all jurisdictions and/or of ensuring the training of technical personnel to recognize that minor differences are likely to occur so that they do not become concerned about them.	I.8				X	X			C
4.	A Radiological Emergency Communications Systems (RECS) message initiated by the State did not follow the proper procedures for use of the RECS system and did not contain complete information. All personnel who have access to the RECS system should be trained in the procedures to follow for its use.	F.1					X			C

TABLE 3.1 (Cont'd)

No.	Description and Recommended Corrective Action	NUREG-0654 FEMA-REP-1 Rev. 1, Reference[a]	Class[b]	Issue Identified: Exercise 3/3/82	Exercise 3/9/83	Exercise 11/28/84	Remedial Exercise 4/10/85	Exercise 6/4/86	Remedial Exercise 11/10-12/3/86	Present Status[c]
5.	A portion of the technical scenario materials (containing time and direction of release) was given to dose assessment staff at the Putnam County EOC and the controller at the facility provided leading comments to the dose assessment personnel. Only properly trained controllers should be used in future exercises. Exercise data and information must be kept confidential.	N.1.a I.8 O.1				X				C
6.	Improper, erroneous field data were given to a Rockland County field monitoring team by controllers. Only properly trained controllers should be used in future exercises.	N.1.a I.8 O.1				X				C
7.	Officials of the State, Westchester, Orange and Putnam Counties who are responsible for the mobilization of emergency resources did not receive notification of the Alert classification in a timely manner. Representatives of the State, Westchester, Orange and Putnam Counties should meet with the utility to review and modify, if necessary, the procedures for ensuring that notification messages are verified by county officials responsible for the mobilization of emergency resources.	E.1			X					C

TABLE 3.1 (Cont'd)

No.	Description and Recommended Corrective Action	NUREG-0654 FEMA-REP-1 Rev. 1, Reference[a]	Class[b]	Issue Identified						Present Status[c]
				Exercise 3/3/82	Exercise 3/9/83	Exercise 11/28/84	Remedial Exercise 4/10/85	Exercise 6/4/86	Remedial Exercise 11/10-12/3/86	
8.	Telefaxed messages required an excessive amount of time for complete message transmissions between the EOF and the State EOC. EOC and EOF messages should be brief. An investigation should be made to examine the possible use of a second telefax machine.	F.1.d			X					C
9.	State support agencies should be given more involvement in the exercise.	A.1.b		X						C
10.	Communications systems between the State EOC and other EOCs should be improved.	F.1.d		X						C
11.	The State may wish to consider its own field monitoring capability which would allow the State to make an independent accident assessment.	I.7		X						NA[d]
12.	Additional calculating equipment should be considered to expedite dose calculations.	I.8		X						C
13.	Additional maps for displaying populations within ERPAs and field sampling locations should be provided in the State EOC.	J.10.a		X						C
14.	State Police at one traffic control point in Westchester County did not have permanent record dosimeters.	K.3.a				X				I

No.	Description and Recommended Corrective Action	NUREG-0654 FEMA-REP-1 Rev. 1, Reference[a]	Class[b]	Issue Identified: Exercise 3/3/82	Exercise 3/9/83	Exercise 11/28/84	Remedial Exercise 4/10/85	Exercise 6/4/86	Remedial Exercise 11/10-12/3/86	Present Status[c]
	State Police assigned to all TCPs should be equipped with permanent record dosimeters.									
15.	The State Department of Health Radiological Health Team leader indicated that State emergency workers would be furnished with KI when exposures of 5 to 25 rem thyroid dose were expected. It should be noted that the New York State Generic Radiological Emergency Response Plan specifies that KI will be considered for use by emergency workers and selected captive populations when a thyroid radiation dose of 25 rem or greater is projected (see page III-44, REV. 10/84 of the State RERP). The State Radiological Health Team leader should be trained in the KI policy contained in the New York State Plan.	J.10.f				X				C

[a] NUREG-0654, FEMA, REP-1, Rev. 1, Criteria for Preparation and Evaluation of Radiological Emergency Response Plans and Preparedness in Support of Nuclear Power Plants, Part II.

N/R: No NUREG-0654 reference.

[b] Def.: Deficiency.
ARCA: Area Requiring Corrective Action.

These classifications were added to the table beginning with the 6/4/86 exercise and are not given for problems identified only at previous exercises.

[c] C: Remedial action complete.
I: Remedial action incomplete.

[d] Each of the counties has developed field monitoring capabilities. Therefore the recommendation for the state to consider the need for independent field monitoring is not an Area Requiring Corrective Action.

TABLE 3.2 INDIAN POINT NUCLEAR POWER STATION -- SUMMARY OF DEFICIENCIES AND AREAS REQUIRING CORRECTIVE ACTION
July 7, 1987
SOUTHERN DISTRICT EOC

No.	Description and Recommended Corrective Action	NUREG-0654 FEMA-REP-1 Rev. 1, Reference[a]	Class[b]	Issue Identified						Present Status[c]
				Exercise 3/3/82	Exercise 3/9/83	Exercise 11/28/84	Remedial Exercise 4/10/85	Exercise 6/4/86	Remedial Exercise 11/10-12/3/86	
	There are no deficiencies or recommendations to correct off-site radiological emergency response preparedness for the Indian Point Nuclear Generating Station for the Southern District EOC.									

[a]NUREG-0654, FEMA, REP-1, Rev. 1, Criteria for Preparation and Evaluation of Radiological Emergency Response Plans and Preparedness in Support of Nuclear Power Plants, Part II.

N/R: No NUREG-0654 reference.

[b]Def.: Deficiency.
ARCA: Area Requiring Corrective Action.

These classifications were added to the table beginning with the 6/4/86 exercise and are not given for problems identified only at previous exercises.

[c]C: Remedial action complete.
I: Remedial action incomplete.

TABLE 3.3 INDIAN POINT NUCLEAR POWER STATION -- SUMMARY OF DEFICIENCIES AND AREAS REQUIRING CORRECTIVE ACTION
July 7, 1987
EMERGENCY OPERATIONS FACILITY

No.	Description and Recommended Corrective Action	NUREG-0654 FEMA-REP-1 Rev. 1, Reference[a]	Class[b]	Issue Identified						Present Status[c]
				Exercise 3/3/82	Exercise 3/9/83	Exercise 11/28/84	Remedial Exercise 4/10/85	Exercise 6/4/86	Remedial Exercise 11/10-12/3/86	
1.	Meteorological data contained in the scenario, which was reviewed and approved for this exercise, did not include provisions for the foggy weather conditions specified in the RECS messages issued by the utility. The inclusion of fog (which was an actual weather condition on the day of the exercise) changed the protective action options that could be considered, hence it became necessary to evaluate evacuation options using evacuation time estimates for adverse weather conditions. The effect of including fog in messages issued by the utility was important because, in some cases, sheltering became the only viable protective action recommendation. In the future, changes to the agreed upon scenario must be prohibited by properly trained controllers.	N.1.a				X				C
2.	The role of county representatives at the EOF needs better definition.	C.2.a			X					C
3.	The communications system needs improvement, and backup telephone lines should be available.	F.1.d			X					C
4.	Improve[redacted]is needed in the flow of informa[redacted]back to the EOF from state and loca[redacted]esponse organizations.	F.1.d			X	[redacted]				[redacted]

TABLE 3.3 (Cont'd)

No.	Description and Recommended Corrective Action	NUREG-0654 FEMA-REP-1 Rev. 1, Reference[a]	Class[b]	Issue Identified: Exercise 3/3/82	Exercise 3/9/83	Exercise 11/28/84	Remedial Exercise 4/10/85	Exercise 6/4/86	Remedial Exercise 11/10-12/3/86	Present Status[c]
5.	More space is needed for effective display of information in the EOF, and a single-floor area would ease communications.	H.9		X						C
6.	Response time for analyzing changes in dose calculation parameters should be shortened.	I.8		X						C

[a]NUREG-0654, FEMA, REP-1, Rev. 1, Criteria for Preparation and Evaluation of Radiological Emergency Response Plans and Preparedness in Support of Nuclear Power Plants, Part II.

N/R: No NUREG-0654 reference.

[b]Def.: Deficiency.
ARCA: Area Requiring Corrective Action.

These classifications were added to the table beginning with the 6/4/86 exercise and are not given for problems identified only at previous exercises.

[c]C: Remedial action complete.
I: Remedial action incomplete.

TABLE 3.4 INDIAN POINT NUCLEAR POWER STATION -- SUMMARY OF DEFICIENCIES AND AREAS REQUIRING CORRECTIVE ACTION
July 7, 1987
JOINT NEWS CENTER

No.	Description and Recommended Corrective Action	NUREG-0654 FEMA-REP-1 Rev. 1, Reference[a]	Class[b]	Issue Identified						Present Status[c]
				Exercise 3/3/82	Exercise 3/9/83	Exercise 11/28/84	Remedial Exercise 4/10/85	Exercise 6/4/86	Remedial Exercise 11/10-12/3/86	
1.	For both Orange and Westchester Counties the second shift public information officers had been at the JNC for several hours of the first shift. During this time they functioned as JNC staff. In future exercises, second shift PIOs should not supplement the staff or be present during the first shift.	A.4	ARCA					X		I
2.	Although the plan states that media briefing times will be posted, they were instead orally communicated to the media present. The procedure in the plan should either be followed or this procedure should be modified to reflect actual practice.	G.4.a	ARCA					X		C
3.	Calls to the 800 telephone number in the Westchester County brochure from simulted citizens did not elicit reference to the rumor control number. Also, there was no answer from the Rockland County number. PIO and other personnel at the county EOCs should be trained to refer incoming citizen calls to the rumor control telephone number. This ARCA will be tested as an objective under Westchester and Rockland County at the next exercise.	G.4.c	ARCA					X		I

No.	Description and Recommended Corrective Action	NUREG-0654 FEMA-REP-1 Rev. 1, Reference[a]	Class[b]	Issue Identified: Exercise 3/3/82	Exercise 3/9/83	Exercise 11/28/84	Remedial Exercise 4/10/85	Exercise 6/4/86	Remedial Exercise 11/10-12/3/86	Present Status[c]
4.	Protective actions included in the messages were verified at the time of communication with the EOCs rather than verifying with the County Executives after the message was drafted as specified in the plan. The procedure in the plan should either be followed or this procedure should be modified to reflect actual practice.	G.3.a	ARCA					X		I
5.	On three occasions, information contained in EBS messages was inconsistent with information that is contained in the public information brochure. Information contained in EBS messages number 3, 7, and 9 directed residents of evacuated ERPAs to a different Westchester County reception center than those specified in the public information brochure.	E.7	ARCA							
	o All information that is contained in EBS messages should be consistent with information in the emergency information brochure.							X		I
	o The plan, emergency information brochure, and EBS message should be reviewed and made consistent with respect to the specification of reception centers.							X		I

TABLE 3.4 (Cont'd)

No.	Description and Recommended Corrective Action	NUREG-0654 FEMA-REP-1 Rev. 1, Reference[a]	Class[b]	Issue Identified: Exercise 3/3/82	Exercise 3/9/83	Exercise 11/28/84	Remedial Exercise 4/10/85	Exercise 6/4/86	Remedial Exercise 11/10-12/3/86	Present Status[c]
6.	The formulation and issuance of some EBS messages took too much time. For example, Orange County ordered sheltering for ERPA 26 at 1417, but the EBS message with this information was not issued until 1457, 40 minutes after the decision was made. In another case, the EBS message to shelter ERPAs 36, 37 and 41 in Rockland County was not aired until after the arrival of the plume. This would have resulted in avoidable dose. Most of the time delay occurred at the JNC in this specific case. Although generally good capability was demonstrated of the interface between County PIOs at the EOCs and their counterparts at the JNC, the overall capability to provide instructional messages to the public should be reviewed and revised as appropriate. Specifically, coordination at the JNC and communications between the JNC and the EOCs need to be improved to insure that the issuance of all EBS messages is more timely.	E.5 E.6 E.7				X				C

TABLE 3.4 (Cont'd)

No.	Description and Recommended Corrective Action	NUREG-0654 FEMA-REP-1 Rev. 1, Reference[a]	Class[b]	Issue Identified: Exercise 3/3/82	Exercise 3/9/83	Exercise 11/28/84	Remedial Exercise 4/10/85	Exercise 6/4/86	Remedial Exercise 11/10-12/3/86	Present Status[c]
7.	Some of the EBS messages were lacking some information. For example, Westchester County did not provide the ERPA numbers for the evacuation of Verplanck and Buchanan, and none of the EBS messages concerning Rockland County evacuation provided the names and locations of reception centers. Coordination at the JNC and communications between the JNC and the EOCs should be improved to ensure that the information contained in EBS messages is complete.	E.5 E.6 E.7				X				C
8.	PIOs from Putnam and Orange counties did not attend all media briefings conducted at the JNC. All State and county PIOs should participate in all press briefings in the event that questions are asked by reporters about the individual county's response.	G.3.a G.4.a				X				C
9.	In conjunction with county PIOs, criteria should be developed to determine what type of information will be issued via EBS and what type via news releases.	E.5		X						C

No.	Description and Recommended Corrective Action	NUREG-0654 FEMA-REP-1 Rev. 1, Reference[a]	Class[b]	Issue Identified						Present Status[c]
				Exercise 3/3/82	Exercise 3/9/83	Exercise 11/28/84	Remedial Exercise 4/10/85	Exercise 6/4/86	Remedial Exercise 11/10-12/3/86	
10.	A new location for the JMF, with adequate space and equipment, that is outside the 10-mile EPZ, should be established.	G.3.a		X						C
11.	Procedures for quickly activating rumor-control telephone numbers, Part II.	G.4.c		X						C

N/R: No NUREG-0654 reference.

[b]Def.: Deficiency.
ARCA: Area Requiring Corrective Action.
Error: Issue improperly identified; no remedial action required.

These classifications were added to the table beginning with the 6/4/86 exercise and are not given for problems identified only at previous exercises.

[c]C: Remedial action complete.
I: Remedial action incomplete.

TABLE 3.5 INDIAN POINT NUCLEAR POWER STATION -- SUMMARY OF DEFICIENCIES AND AREAS REQUIRING CORRECTIVE ACTION
July 7, 1987
WESTCHESTER COUNTY

No.	Description and Recommended Corrective Action	NUREG-0654 FEMA-REP-1 Rev. 1, Reference[a]	Class[b]	Issue Identified							Present Status[c]
				Exercise 3/3/82	Exercise 3/9/83	Exercise 11/28/84	Remedial Exercise 4/10/85	Exercise 6/4/86	Remedial Exercise 11/10-12/3/86	Remedial Exercise 2/18/87	
1.	The call lists that were used by personnel at the Westchester County Warning Point to notify the staff listed different names for some of the positions than the lists contained in Procedure 2. The entire set of call lists in the plan at the County Warning Point should be reviewed and corrected as necessary.	E.2	ARCA					X			I
2.	The second-shift coordinator had had no training and used a long-obsolete 1981 version of Radiological Emergency Response Procedure 4 (the school procedure). Sufficient numbers of backup school coordinators should be trained and supplied with current plans.	J.10.d	ARCA					X			I
3.	The status board in the communications room was not always kept up to date and was almost illegible. The person responsible for the communications room status board should be trained to keep it accurate and readable.	H.3	ARCA					X			I

TABLE 3.5 (Cont'd)

No.	Description and Recommended Corrective Action	NUREG-0654 FEMA-REP-1 Rev. 1, Reference[a]	Class[b]	Issue Identified							Present Status[c]
				Exercise 3/3/82	Exercise 3/9/83	Exercise 11/28/84	Remedial Exercise 4/10/85	Exercise 6/4/86	Remedial Exercise 11/10-12/3/86	Remedial Exercise 2/18/87	
4.	The County Executive decided to delay the evacuation order for the areas surrounding the City of Peekskill so that the potential traffic conflicts would not develop, explaining his rationale to the State. In a more rapidly escalating incident than the one contained in this scenario, this decision could lead to an excessive evacuation time. The evacuation time estimates and transportation plans should be reviewed to determine whether other methods of evacuating the City of Peekskill during a rapidly escalating accident can be devised which avoid the necessity of delaying the evacuation of surrounding areas.	J.9 J.10.i J.10.i	ARCA					X			I
5.	The Deputy Commissioner of Public Safety objects to the presence in Procedure 2 of the traffic control system embodied in Table 2B (p. 2-21-2-32) of the Westchester County plan. He strongly prefers the system in Table 2A (which appears to have been omitted from the plan in a September 1984 revision [but which can still be found alongside Table 2B as part of Radiological Emergency Response Procedure 8 (p. 8-15-8-18)]. Two (2) competing traffic control systems should not be in the plan or procedures, and the	J.10.j	ARCA					X			I

No.	Description and Recommended Corrective Action	NUREG-0654 FEMA-REP-1 Rev. 1, Reference[a]	Class[b]	Issue Identified: Exercise 3/3/82	Exercise 3/9/83	Exercise 11/28/84	Remedial Exercise 4/10/85	Exercise 6/4/86	Remedial Exercise 11/10-12/3/86	Remedial Exercise 2/18/87	Present Status[c]
	responsible police officials should follow the system that has been selected. The plan should be rewritten with the close cooperation of the Deputy Commissioner of Public Safety to specify only one traffic control system in the Westchester County plan.										
6.	Some information in EBS messages regarding Westchester County reception centers conflicted with what is contained in the brochures distributed to the public. The PIO staff at the EOC should be trained to insure that any information recommended for issuance in an EBS message is consistent with information provided in the public information brochure.	E.5 G.1 G.2	ARCA					X			I
7.	There was some confusion at the Joint News Center over whether an EBS message or a press release should be issued at 0934 in order to announce the evacuation of the Putnam schools; the decision was to issue EBS message #2. As a result, the County Executive restarted the EBS clock. The current version of the Westchester County plan calls for public notification of school evacuations to be via news releases, not EBS. Westchester County should determine	G.4.b	ARCA					X			I

TABLE 3.5 (Cont'd)

No.	Description and Recommended Corrective Action	NUREG-0654 FEMA-REP-1 Rev. 1, Reference[a]	Class[b]	Issue Identified							Present Status[c]
				Exercise 3/3/82	Exercise 3/9/83	Exercise 11/28/84	Remedial Exercise 4/10/85	Exercise 6/4/86	Remedial Exercise 11/10-12/3/86	Remedial Exercise 2/18/87	
	whether EBS messages or news releases are the more appropriate procedures for public notification of school evacuations and should ensure that the county plan and actual practice are consistent.										
8.	The EOC personnel had no knowledge that EBS message #6, which repeated certain protective action instructions to residents of Westchester County, had even been issued. This could have created confusion concerning the proper protective measures. County PIO personnel should be trained to coordinate all messages with Westchester County and to keep close track of all EBS messages as they are issued from the JNC.	G.4.b	ARCA					X			I
9.	There was one case where projected exposure calculations were transmitted to Rockland County in incorrect units. This caused confusion and it took some time to resolve the problem. Dose assessment data should be carefully reviewed by the dose assessment coordinator before it is transmitted to other EOCs.	F.1.d					X				C

TABLE 3.5 (Cont'd)

No.	Description and Recommended Corrective Action	NUREG-0654 FEMA-REP-1 Rev. 1, Reference[a]	Class[b]	Issue Identified							Present Status[c]
				Exercise 3/3/82	Exercise 3/9/83	Exercise 11/28/84	Remedial Exercise 4/10/85	Exercise 6/4/86	Remedial Exercise 11/10-12/3/86	Remedial Exercise 2/18/87	
10.	Some confusion was caused in the dose assessment area because message forms did not identify the originator of the message. Information flow should be improved by noting the names of the originating organization and the origination individual on the message forms.	H.e					X				C
11.	Changes in meteorological conditions and emergency classification level were not always posted in a timely manner in the dose assessment area. Personnel responsible for updating the status boards in the dose assessment area should receive additional training so that all status boards will be updated in a timely manner.	H.3 K.5.b					X				C
12.	Representatives from various county agencies at the EOC, in order to transmit a message, must leave their station and go to their corresponding communications person in the communication room. Delays in message transmitted as well as excessive noise and movement are a result of this system. Consideration should be given to the installation of an intercom system between each representative in the EOC operation room and their counterpart in the communication center.	F.1				X					C

TABLE 3.5 (Cont'd)

No.	Description and Recommended Corrective Action	NUREG-0654 FEMA-REP-1 Rev. 1, Reference[a]	Class[b]	Issue Identified							Present Status[c]
				Exercise 3/3/82	Exercise 3/9/83	Exercise 11/28/84	Remedial Exercise 4/10/85	Exercise 6/4/86	Remedial Exercise 11/10-12/3/86	Remedial Exercise 2/18/87	
13.	Some emergency personnel conducting periodic briefings to the EOC staff did not stand close enough to the microphone at the podium. As a result parts of the briefings were inaudible throughout the EOC. Advise those who brief the staff to speak loudly into the microphone at all times.	F.1				X					C
14.	The filing and logging of messages received at the EOC was done in several places, potentially causing confusion and possible misplaced messages. The message filing and logging systems should be reviewed and redesigned to centralize its operations, thereby assuring accurate and uniform records.	H.e				X					C
15.	Status boards were too small to contain all the appropriate information and be visible throughout the EOC. Also, irrelevant and excessive information was included on some of the status boards causing possible confusion. The communications room did not have a status board. The status board system should be reviewed and corresponding corrections made. In addition, a status board should be installed in the communications room.	H.3 K.5.b				X					C

TABLE 3.5 (Cont'd)

No.	Description and Recommended Corrective Action	NUREG-0654 FEMA-REP-1 Rev. 1, Reference[a]	Class[b]	Issue Identified							Present Status[c]
				Exercise 3/3/82	Exercise 3/9/83	Exercise 11/28/84	Remedial Exercise 4/10/85	Exercise 6/4/86	Remedial Exercise 11/10-12/3/86	Remedial Exercise 2/18/87	
16.	Timely posting of protective action recommendations and their times of implementation on the dose assessment status boards was not demonstrated. Status board information in the dose assessment area should be updated in a more timely manner.	H.3				X					C
17.	Field monitoring data could have been plotted on the wall map to provide an easier analysis of the monitoring data and comparison with the pre-plotted plume isopleths. Dose assessment personnel should plot field monitoring data on the wall map that is available in the dose assessment area of the EOC.	I.8				X					C
18.	Criteria should be developed, in conjunction with the state and the other counties, to determine the type of information to be issued via EBS and the type to be issued via news releases.	E.5		X							C
19.	More detailed alerting and mobilization procedures should be included in the written plan.	E.2 H.4		X							C

TABLE 3.5 (Cont'd)

No.	Description and Recommended Corrective Action	NUREG-0654 FEMA-REP-1 Rev. 1, Reference[a]	Class[b]	Issue Identified							Present Status[c]
				Exercise 3/3/82	Exercise 3/9/83	Exercise 11/28/84	Remedial Exercise 4/10/85	Exercise 6/4/86	Remedial Exercise 11/10-12/3/86	Remedial Exercise 2/18/87	
20.	Backup communication systems and procedures should be reviewed to reduce dependence on the commercial telephone system, since this may be overloaded in a real emergency.	F.1.e		X							C
21.	A dedicated line between the EOF and the EOC should be installed to improve communications.	F.1.d		X							C
22.	County PIOs should attend all major media briefings.	G.4.b		X							C
23.	It is recommended that workers in the EOC wear identification badges that give their names, their organizations (e.g., Red Cross, etc.) and their functions, in order to expedite the flow of messages and orders.	H.3		X							C
24.	The arrangement of tables and the locations for each emergency worker in the EOC should be reviewed in order to minimize the impact of the small space on the operation of the EOC.	H.3		X							C
25.	Procedures should be developed for obtaining the field data measured by the utility's field monitoring team in a timely manner.	I.8		X							C
26.	A population distribution map should be displayed in the EOC.	J.10.b		X							C

TABLE 3.5 (Cont'd)

No.	Description and Recommended Corrective Action	NUREG-0654 FEMA-REP-1 Rev. 1, Reference[a]	Class[b]	Issue Identified							Present Status[c]
				Exercise 3/3/82	Exercise 3/9/83	Exercise 11/28/84	Remedial Exercise 4/10/85	Exercise 6/4/86	Remedial Exercise 11/10-12/3/86	Remedial Exercise 2/18/87	
27.	Future exercise scenarios should provide more time for a detailed reentry activity.	M.1		X							C
28.	One of the field teams (HD 2) did not extend the probe out the window while traversing the scenario plume. Field team members should be trained to make sure that the probe is extended out the window of their vehicle while traversing the plume.	I.7 I.8	ARCA					X			I
29.	Radio communications between the field team and the Westchester County EOC often were interrupted and inconsistent, apparently because of interference from other local government agencies using the same frequency. The plan or procedures, as appropriate (perhaps Attachment 14), should be revised to dedicate the radio frequency assigned to the field teams to their exclusive use during an exercise or an actual radiological emergency.	I.8	ARCA					X			I
30.	One radiological field monitoring team was not aware of proper procedures requiring the transportation of air samples to a point outside the plume for determining radioiodine concentrations. Field team operating procedures	I.9				X					C

TABLE 3.5 (Cont'd)

No.	Description and Recommended Corrective Action	NUREG-0654 FEMA-REP-1 Rev. 1, Reference[a]	Class[b]	Issue Identified							Present Status[c]
				Exercise 3/3/82	Exercise 3/9/83	Exercise 11/28/84	Remedial Exercise 4/10/85	Exercise 6/4/86	Remedial Exercise 11/10-12/3/86	Remedial Exercise 2/18/87	
	should be revised to include instruction for moving outside the plume to a low background area to determine radioiodine concentrations.										
31.	Monitoring equipment should be recalibrated periodically according to the schedules set forth in the plan.	H.10		X							C
32.	The sequence of sample points used (routes driven by the monitoring teams) should be carefully chosen to give the maximum amount of data for use in making the early independent assessment.	I.8		X							C
33.	The number of samples needed for an independent early assessment, and the possible hinderances to fast deployment of the field monitoring teams, should be reviewed to assess the possible need for additional field monitoring teams.	I.8		X							C
34.	Silver zeolite filters should be used in the air sampling equipment that is used for measuring radioiodine. NOTE: Charcoal filters may be used during drills and exercises, but the silver zeolite filters must be in the instrument kits ready for use in an actual emergency.	I.9		X							C

TABLE 3.5 (Cont'd)

No.	Description and Recommended Corrective Action	NUREG-0654 FEMA-REP-1 Rev. 1, Reference[a]	Class[b]	Issue Identified							Present Status[c]
				Exercise 3/3/82	Exercise 3/9/83	Exercise 11/28/84	Remedial Exercise 4/10/85	Exercise 6/4/86	Remedial Exercise 11/10-12/3/86	Remedial Exercise 2/18/87	
35.	The us dispatcher at the Laidlaw Bus Garage in Ossining did not demonstrate an adequate knowledge of her responsibilities. This could have impeded the protection of the public because it could have resulted in improper instructions to drivers and improper dispatch of evacuation buses. All of the Laidlaw Bus Garage bus dispatchers whose training is inadequate should be adequately trained.	J.10.d O.1 O.5	Def.					X	X		C
36.	The message read by the police officer dispatched to perform route alerting in the area covered by siren #62 was not the message which is contained in the most recent version of the plan (attachment 13, p. 2-93), and it omitted the EBS call letters and frequency. A review should be made to assure that all emergency workers assigned to perform route alerting use the message contained in the current version of the plan.	E.6	ARCA					X			I
37.	According to one of the bus dispatchers, some of the general population evacuation bus route maps are inaccurate. The accuracy of all maps of general population evacuation bus routes in Westchester County should be reviewed and the maps should be corrected as required.	O.1 O.5	ARCA					X			I

No.	Description and Recommended Corrective Action	NUREG-0654 FEMA-REP-1 Rev. 1, Reference[a]	Class[b]	Issue Identified: Exercise 3/3/82	Exercise 3/9/83	Exercise 11/28/84	Remedial Exercise 4/10/85	Exercise 6/4/86	Remedial Exercise 11/10-12/3/86	Remedial Exercise 2/18/87	Present Status[c]
38.	Not all of the entrances to the Westchester Community College campus in Valhalla were posted with directional signs that would lead evacuees to the proper entrance to the reception center. Signs should be posted at all entrances to the campus directing evacuees to the proper entrance to the reception center.	J.12	ARCA					X			I
39.	Monitored and decontaminated vehicles were required to rejoin the incoming vehicle flow before turning aside to clean parking; no traffic officer was present to assist these movements. o Better procedures should be developed for routing of incoming vehicles so that unmonitored vehicles are kept separate from clean vehicles. o A traffic officer should be stationed to direct traffic to assure that the separation of unmonitored form clean vehicles is maintained.	J.12 L.1	ARCA					X			I

TABLE 3.5 (Cont'd)

No.	Description and Recommended Corrective Action	NUREG-0654 FEMA-REP-1 Rev. 1, Reference[a]	Class[b]	Issue Identified							Present Status[c]
				Exercise 3/3/82	Exercise 3/9/83	Exercise 11/28/84	Remedial Exercise 4/10/85	Exercise 6/4/86	Remedial Exercise 11/10-12/3/86	Remedial Exercise 2/18/87	
40.	Some evacuee monitors had to be reminded to turn on their survey instruments; the evaluator's feet sometimes were remonitored after walking along the "contaminated" paths to the decontaminated areas, sometimes not. Continued training on details should be given in order to improve performance in evacuee monitoring.	J.12	ARCA					X			I
41.	A shift change was not demonstrated at the reception center, and not all positions there had backup staff available. An actual shift change should be demonstrated at a future exercise to fulfill this objective.	A.4				X					C
42.	Some RACES operators assigned to ride on evacuation buses and provide backup communications with the county EOC missed their bus apparently due to improper rendezvous information. Training should be provided to the dispatcher(s) of RACES personnel providing mobile communications with buses so they can be deployed to the field with correct information so that they can rendezvous with buses before then are dispatched from the garage.	F.1.d K.5.b	ARCA			X		X			I

No.	Description and Recommended Corrective Action	NUREG-0654 FEMA-REP-1 Rev. 1, Reference[a]	Class[b]	Issue Identified: Exercise 3/3/82	Exercise 3/9/83	Exercise 11/28/84	Remedial Exercise 4/10/85	Exercise 6/4/86	Remedial Exercise 11/10-12/3/86	Remedial Exercise 2/18/87	Present Status[c]
43.	Arrival of large numbers of evacuees at the reception center could create substantial backlogs, given the monitoring rates observed at the exercise. Five or six additional monitoring staff should be trained or the current staff should be trained in radiological monitoring procedures to increase the efficiency of preregistration monitoring.	J.12	ARCA	X	X	X		X			I
44.	At the reception center potentially contaminated and known "clean" evacuees were not kept completely segregated. Arrange routes or partitions to assure complete segregation.	J.12				X					C
45.	The decontamination specialist at the reception center was not equipped with protective gloves for handling contaminated articles of clothing. Decontamination personnel should be provided with protective gloves and their use should be demonstrated at a future exercise.	J.12				X					C
46.	Westchester County transportation personnel have not been adequately trained regarding evacuation procedures, the routes they should follow to pick up evacuees and the location of reception centers. Bus drivers responsible for evacuation services should be	J.10.a J.10.g			X						C

TABLE 3.5 (Cont'd)

No.	Description and Recommended Corrective Action	NUREG-0654 FEMA-REP-1 Rev. 1, Reference[a]	Class[b]	Issue Identified							Present Status[c]
				Exercise 3/3/82	Exercise 3/9/83	Exercise 11/28/84	Remedial Exercise 4/10/85	Exercise 6/4/86	Remedial Exercise 11/10-12/3/86	Remedial Exercise 2/18/87	
	trained regarding evacuation procedures and supplied with better maps and instructions concerning the routes and locations of reception centers.										
47.	Additional training and possibly additional resources, including personnel and vehicles, are needed for the evacuation of institutionalized and noninstitutionalized, mobility-impaired persons. Transportation personnel responsible for the evacuation of mobility-impaired persons should be trained in evacuation procedures, and the supply of ambulances for the evacuation of nursing homes should be reviewed.	J.10.d			X						C
48.	The capacity of the congregate care facility is too small to accommodate the capacity specified in the plan. The capacity of congregate care facilities in Westchester County should be reviewed and additional facilities should be identified if necessary.	J.10.h			X						C

TABLE 3.5 (Cont'd)

No.	Description and Recommended Corrective Action	NUREG-0654 FEMA-REP-1 Rev. 1, Reference[a]	Class[b]	Issue Identified							Present Status[c]
				Exercise 3/3/82	Exercise 3/9/83	Exercise 11/28/84	Remedial Exercise 4/10/85	Exercise 6/4/86	Remedial Exercise 11/10-12/3/86	Remedial Exercise 2/18/87	
49.	Test management of sound levels should be made throughout the 10-mile EPZ. Modification and/or additions should then be made until the system meets the notification requirements.	E.6 J.10.f		X							C
50.	route-alerting procedures and messages should be developed to supplement the siren system, especially in those areas of low siren-sound levels.	E.6 J.10.c		X							C
51.	Buses used for evacuation should be supplied better maps and instructions concerning the routes and the locations of the reception centers.	J.10.a J.10.g		X							C
52.	Procedures and equipment for the evacuation of the mobility-impaired need to be improved.	J.10.d		X							C
53.	All buses used for evacuation should be equipped with radios for dispatching.	J.10.g		X							C
54.	Procedures for staffing traffic control points in a timely manner need to be reviewed and strengthened.	J.10.j		X							C
55.	Procedures for dealing with impediments to evacuation need to be developed and exercised. These impediments include auto accidents, auto breakdowns, severe road conditions, and the unavailability of gasoline when needed.	J.10.k		X							C

No.	Description and Recommended Corrective Action	NUREG-0654 FEMA-REP-1 Rev. 1, Reference[a]	Class[b]	Issue Identified							Present Status[c]
				Exercise 3/3/82	Exercise 3/9/83	Exercise 11/28/84	Remedial Exercise 4/10/85	Exercise 6/4/86	Remedial Exercise 11/10-12/3/86	Remedial Exercise 2/18/87	
56.	The bus dispatcher at the Laidlaw Bus Garage in Ossining did not demonstrate an adequate knowledge of her responsibilities for emergency worker radiological exposure control, apparently because she was new on the job. The training of all of the Laidlaw bus dispatchers should be reviewed and proper training provided to all of those who have not been trained on emergency worker radiological exposure control procedures contained in the County RERP, or whose training is stale.	K.3.a O.1 O.5	ARCA					X	X		C
57.	The second shift field monitoring team members did not understand the reasons for the two (2) different DRDs they were given. The field monitoring teams should be trained about the functions of the different dosimetry they possess.	K.3.b O.1 O.5	ARCA					X			I

No.	Description and Recommended Corrective Action	NUREG-0654 FEMA-REP-1 Rev. 1, Reference[a]	Class[b]	Issue Identified							Present Status[c]
				Exercise 3/3/82	Exercise 3/9/83	Exercise 11/28/84	Remedial Exercise 4/10/85	Exercise 6/4/86	Remedial Exercise 11/10-12/3/86	Remedial Exercise 2/18/87	
58.	The officer responsible for route alerting and one (1) of the traffic control point teams (evaluated at the intersection of routes 9 and 9A) were not sufficiently familiar with the specified procedures for reading and recording their doses, nor did they know the maximum permissible dose without authorization. The training of all Westchester County and Yorktown Police should be reviewed and proper training provided to those who have not been trained concerning radiological exposure control, or whose training has become stale.	K.3.a K.3.b O.1 O.5	ARCA					X			I
59.	The bus dispatcher at the Laidlaw bus garage had no knowledge of KI, and did not distribute it to either of the two (2) bus drivers who were dispatched from that garage. The training of all Laidlaw bus dispatchers should be reviewed and proper training provided to all of those who have not been trained on the radiological emergency plan, or those whose training is stale.	O.1 O.5	ARCA					X	X		C
60.	A consistent policy concerning the administration of KI to injured contaminated individuals at the Peekskill Hospital was not in evidence. During the exercise, there was some confusion	J.10.e				X					C

No.	Description and Recommended Corrective Action	NUREG-0654 FEMA-REP-1 Rev. 1, Reference[a]	Class[b]	Issue Identified: Exercise 3/3/82	Exercise 3/9/83	Exercise 11/28/84	Remedial Exercise 4/10/85	Exercise 6/4/86	Remedial Exercise 11/10-12/3/86	Remedial Exercise 2/18/87	Present Status[c]
	caused by a lack of an established procedure. Peekskill Hospital should establish a policy on the administration of KI including standard operating procedures. Also the medical staff should be trained in this policy and a training schedule should be furnished to FEMA.										
61.	Personnel at one traffic control point did not have permanent record dosimeters and did not know what they were. All field personnel should be supplied with permanent record dosimeters and trained regarding their function.	K.3.a K.3.b				X					C
62.	One (1) of the bus drivers from Laidlaw Bus Garage did not read her dosimeter at proper intervals and did not understand the use of the mid-range DRD, which had been received the previous evening. It is recommended that corrective action should be taken by training all of the Laidlaw bus drivers on the use of all of the dosimeters which would be distributed to them in case of a radiological emergency at IPNS.	K.3.b 0.1 0.5	ARCA			X		X			I

No.	Description and Recommended Corrective Action	NUREG-0654 FEMA-REP-1 Rev. 1, Reference[a]	Class[b]	Issue Identified							Present Status[c]
				Exercise 3/3/82	Exercise 3/9/83	Exercise 11/28/84	Remedial Exercise 4/10/85	Exercise 6/4/86	Remedial Exercise 11/10-12/3/86	Remedial Exercise 2/18/87	
63.	At the PMC in Valhalla, emergency workers were unfamiliar with proper procedures for the radiological monitoring of incoming personnel. Additional training in radiological monitoring procedures should be provided to the emergency staff at the PMC. A training schedule should be furnished to FEMA.	K.5.a K.5.b				X					C
64.	The Laidlaw Bus Co. lacked sufficient dosimetry for its personnel, having received only two (2) mid-range dosimeters. A review should be made of all dosimetry supplies at bus companies and a sufficient supply given to each.	K.3.a K.5.b	ARCA	X	X			X	X		C
65.	Bus and ambulance drivers who may be called upon to enter the 10-mile plume exposure pathway EPZ were not consistently trained in the use of dosimeters and KI. All emergency workers should be fully trained in radiological exposure control including the use of dosimeters and KI.	K.5.b			X						I
66.	More sensitive self-reading dosimeters (e.g., 0-200 mRem, 0-20 Rem) should be provided to emergency workers.	K.3.a		X							C

No.	Description and Recommended Corrective Action	NUREG-0654 FEMA-REP-1 Rev. 1, Reference[a]	Class[b]	Issue Identified							Present Status[c]
				Exercise 3/3/82	Exercise 3/9/83	Exercise 11/28/84	Remedial Exercise 4/10/85	Exercise 6/4/86	Remedial Exercise 11/10-12/3/86	Remedial Exercise 2/18/87	
67.	Contact with a number of residents in the area revealed that most do not remember receiving public information on how they would be notified or what their actions should be in case of an accident at IPNS. However, most also were aware of the general concept of evacuating the area in case of such an accident, as well as the need to tune in their local radio station in order to receive emergency information. A more intensive effort should be conducted to inform local residents about the radiological emergency evacuation plan, such as an additional distribution of the public information brochures.	G.1 G.2	ARCA					X			I
68.	One of the schools visited had a tone alert radio which did not work during the exercise. Tone alert radios should be made operational at all locations.	F.1.e J.9	ARCA					X			I
69.	The annual public education brochure, currently in review, has not yet been distributed in Westchester County. Publications and distribution of the public education brochure for Westchester County should be expedited.	G.1 K.5.b		X							C

No.	Description and Recommended Corrective Action	NUREG-0654 FEMA-REP-1 Rev. 1, Reference[a]	Class[b]	Issue Identified							Present Status[c]
				Exercise 3/3/82	Exercise 3/9/83	Exercise 11/28/84	Remedial Exercise 4/10/85	Exercise 6/4/86	Remedial Exercise 11/10-12/3/86	Remedial Exercise 2/18/87	
70.	Contact with a number of public facilities, including a hotel, bank, supermarket, electronics store, and fast food restaurant revealed a lack of public information materials, although the managers of these facilities were generally aware of the existence of an evacuation plan in case of an accident at IPNS. A more concerted effort should be undertaken at providing public awareness information to facilities which are used heavily by transient populations, such as additional distributions of public information brochures, stickers, etc.	G.2	ARCA		X			X			I
71.	A very complete education campaign regarding ERPAs should be implemented that includes distribution of detailed maps showing these areas.	G.1		X							C
72.	Intense efforts should be made to make the public aware of the meaning of the siren signals.	G.1		X							C

TABLE 3.5 (Cont'd)

No.	Description and Recommended Corrective Action	NUREG-0654 FEMA-REP-1 Rev. 1, Reference[a]	Class[b]	Issue Identified							Present Status[c]
				Exercise 3/3/82	Exercise 3/9/83	Exercise 11/28/84	Remedial Exercise 4/10/85	Exercise 6/4/86	Remedial Exercise 11/10-12/3/86	Remedial Exercise 2/18/87	
73.	Additional public education is needed so that the public will understand the locations of the areas that are to take protective actions, and will know how to carry out the protective actions. Consideration should be given to ascertain whether a significant number of people did not receive the pamphlets. If this is the case, additional distribution should be made.	G.1 K.5.b		X							C

[a]NUREG-0654, FEMA, REP-1, Rev. 1, Criteria for Preparation and Evaluation of Radiological Emergency Response Plans and Preparedness in Support of Nuclear Power Plants, Part II.

N/R: No NUREG 0654 reference.

[b]Def.: Deficiency
ARCA: Area Requiring Corrective Action.

These classifications were added to the table beginning with the 6/4/86 exercise and are not given for problems identified only at previous exercises.

[c]C: Remedial action complete.
I: Remedial action incomplete.

TABLE 3.6 INDIAN POINT NUCLEAR POWER STATION -- SUMMARY OF DEFICIENCIES AND AREAS REQUIRING CORRECTIVE ACTION
July 7, 1987
ROCKLAND COUNTY

No.	Description and Recommended Corrective Action	NUREG-0654 FEMA-REP-1 Rev. 1, Reference[a]	Class[b]	Issue Identified: Exercise 3/3/82	Exercise 3/9/83	Exercise 11/28/84	Remedial Exercise 4/10/85	Exercise 6/4/86	Remedial Exercise 11/10-12/3/86	Present Status[c]
1.	Upon his arrival at the County Warning Point, the Deputy Director, Office of Emergency Services, directed the County Warning Point to notify the County Executive, Radiological Health Specialist, and Public Information Officer. While these notifications were in accordance with the Communications Section Procedure Manual which was used during the exercise, they differ from the Rockland County plan (Procedure RCS-4, pages 3 and 4 of 6). Procedure RCS-4 states that during an Unusual Event ECL, the Director OES, County Executive and Palisades Park Police are to be notified during an Alert or higher ECL. In addition, both sets of procedures state that the Palisades Park Police are to be notified during an Unusual Event; they were not, however, notified until 0833, after declaration of the Alert ECL.	E.2	ARCA							
	o The Rockland County Warning Point notification procedures RCS-4 should be reviewed and revised if appropriate.							X		I

TABLE 3.7 (Cont'd)

No.	Description and Recommended Corrective Action	NUREG-0654 FEMA-REP-1 Rev. 1, Reference[a]	Class[b]	Issue Identified						Present Status[c]
				Exercise 3/3/82	Exercise 3/9/83	Exercise 11/28/84	Remedial Exercise 4/10/85	Exercise 6/4/86	Remedial Exercise 11/10-12/3/86	
37.	Emergency personnel at the PMC and the reception center were not provided with the required dosimetry equipment. Appropriate dosimetry equipment should be provided to emergency workers at the PMC and reception center.	K.3.a	ARCA					X		I
38.	Emergency workers at the traffic control points were not aware of the proper dose limits at which authorization is required nor were they familiar with the frequency at which toread and record their dosimeters. Training should be provided for law enforcement personnel who will be staffing the TCP. Also, it would be helpful if the exposure limits were printed on the field log sheets for quick reference y emergency personnel.	K.3.b K.4	ARCA		X			X		I
39.	Some emergency workers at the traffic control points were not provided with KI. Law enforcement officers should have the required KI given to them upon dispatch.	J.10.e	ARCA			X		X		I
40.	The emergency worker at one TCP and the emergency worker who performed route alerting did not have any dosimetry. Permanent record dosimeters (e.g., film badges, TLDs) should be provided to all emergency workers.	K.3.a				X				C

No.	Description and Recommended Corrective Action	NUREG-0654 FEMA-REP-1 Rev. 1, Reference[a]	Class[b]	Issue Identified: Exercise 3/3/82	Exercise 3/9/83	Exercise 11/28/84	Remedial Exercise 4/10/85	Exercise 6/4/86	Remedial Exercise 11/10-12/3/86	Present Status[c]
41.	According to a representative from a bus company which is responsible for evacuation, only 10% of that company's drivers have received training in radiological exposure control measures. Should more drivers be needed in an actual emergency, exposure control could not be effectively managed. All emergency response personnel should be fully trained in radiological exposure control procedures. A training schedule and the number of individuals trained should be provided to FEMA.	K.3.b	ARCA			X		X		I
42.	The ambulance team responding to the medical drill was not aware of who could authorize exposure in excess of PAGs. Additional training should be provided ambulance personnel on exposure limits and authorization to exceed them.	K.4	ARCA			X				I
43.	At the PMC, vehicle monitoring was incomplete. The air cleaner and inside of the vehicle were not checked for contamination. Additional training should be provided in decontamination procedures to emergency workers at the PMC. A training schedule should be provided to FEMA.	K.5.b				X				C

TABLE 3.7 (Cont'd)

No.	Description and Recommended Corrective Action	NUREG-0654 FEMA-REP-1 Rev. 1, Reference[a]	Class[b]	Issue Identified						Present Status[c]
				Exercise 3/3/82	Exercise 3/9/83	Exercise 11/28/84	Remedial Exercise 4/10/85	Exercise 6/4/86	Remedial Exercise 11/10-12/3/86	
44.	Permanent-recording devices (e.g., TLDs or film badges) should be considered for emergency workers.	K.3.a		X						C
45.	Disposal methods for contaminated materials should be developed.	K.5.b		X						C
46.	Administrators at some schools were not aware of radiological emergency response procedures. Training in radiological emergency response procedures should be provided to school officials.	J.9	Def.					X		C
47.	Two of the schools visited had tone alert radios which did not work during the exercise. Tone alert radios should be made operational at all locations.	F.1.e	ARCA					X		C
48.	The Provost Marshall of the U.S. Military Academy at West Point stated that tone alert radios are present at the Academy, but that proper operation was unknown by the staff. Training should be offered to the Military Academy concerning tone alert radio operation and radiological emergency response procedures.	F.1.e J.9	ARCA					X		I

TABLE 3.7 (Cont'd)

No.	Description and Recommended Corrective Action	NUREG-0654 FEMA-REP-1 Rev. 1, Reference[a]	Class[b]	Issue Identified: Exercise 3/3/82	Exercise 3/9/83	Exercise 11/28/84	Remedial Exercise 4/10/85	Exercise 6/4/86	Remedial Exercise 11/10-12/3/86	Present Status[c]
49.	The Hotel Thayer in West Point, New York did not have emergency information posted nor available as required. Required emergency information should be provided to all applicable locations within the 10-mile EPZ in Orange County.	J.10.c	ARCA					X		I
50.	Additional public education is needed so that the public will understand the locations of the areas that are to take protective actions and will know how to carry out the protective actions.	G.1 J.10.a		X						C
51.	Too many activities demonstrated at the remedial medical drill were simulated. The following activities should be demonstrated at the next exercise: (1) use of two (2) monitors, one (1) for the ambulance crew and one (1) for the victim, (2) a separate recorder to note radiation readings and vital signs, (3) a full demonstration of proper exit procedures for at least one staff member, and (4) greater participation by the physician.	L.4	ARCA					X[d]		I

TABLE 3.7 (Cont'd)

No.	Description and Recommended Corrective Action	NUREG-0654 FEMA-REP-1 Rev. 1, Reference[a]	Class[b]	Issue Identified: Exercise 3/3/82	Exercise 3/9/83	Exercise 11/28/84	Remedial Exercise 4/10/85	Exercise 6/4/86	Remedial Exercise 11/10-12/3/86	Present Status[c]

[a]NUREG-0654, FEMA, REP-1, Rev. 1, Criteria for Preparation and Evaluation of Radiological Emergency Response Plans and Preparedness in Support of Nuclear Power Plants, Part II.

N/R: No NUREG-0654 reference.

[b]Def.: Deficiency.
ARCA: Area Requiring Corrective Action.

These classifications were added to the table beginning with the 6/4/86 exercise and are not given for problems identified only at previous exercise.

[c]C: Remedial action complete.
I: Remedial action incomplete.

[d]July 12, 1986 remedial medical drill.

TABLE 3.8 INDIAN POINT NUCLEAR POWER STATION -- SUMMARY OF DEFICIENCIES AND AREAS REQUIRING CORRECTIVE ACTION
JULY 7, 1987
PUTNAM COUNTY

No.	Description and Recommended Corrective Action	NUREG-0654 FEMA-REP-1 Rev. 1, Reference[a]	Class[b]	Issue Identified						Present Status[c]
				Exercise 3/3/82	Exercise 3/9/83	Exercise 11/28/84	Remedial Exercise 4/10/85	Exercise 6/4/86	Remedial Exercise 11/10-12/3/86	
1.	A shift change was not demonstrated in the accident assessment area. There were two accident assessment team leaders present for training purposes and both wished to participate in the entire exercise. An actual shift change area should be demonstrated among the lead positions in the accident assessment area during the next exercise.	A.4	ARCA					X		I
2.	Radio communications with the county's mobile medical vehicle were intermittent as observed both in the Putnam County EOC and in the field. The cause of the intermittent radio communications with the mobile medical vehicle should be determined and corrected.	F.2	ARCA					X		I
3.	No information was placed on the status board in the radio communications area until after 1000 while the first entry had been placed on the status board in the operations area before 0854. In addition, an entry noting that a Site Area Emergency had been declared was not posted on the status board in the operations area until after 1042 even though the notification had been	F	ARCA					X		I

TABLE 3.8 (Cont'd)

No.	Description and Recommended Corrective Action	NUREG-0654 FEMA-REP-1 Rev. 1, Reference[a]	Class[b]	Issue Identified: Exercise 3/3/82	Exercise 3/9/83	Exercise 11/28/84	Remedial Exercise 4/10/85	Exercise 6/4/86	Remedial Exercise 11/10-12/3/86	Present Status[c]
	received at the Putnam County EOC over the RECS line at about 1019. Personnel responsible for maintaining the status boards should receive additional training on the necessity of placing important information on both status boards in a timely manner.									
4.	Accident assessment personnel did not contact other EOCs until after 0925, or about one hour and 15 minutes after the accident assessment areahad been activated. Accident assessment personnel should be trained to contact other county EOCs early in an emergency to determine their status and take advantage of their additional field data and dose projections.	F	ARCA							C
5.	No status board of key events was available in the accident assessment area.	H.3	ARCA							C
	o A key events status board should be supplied for the accident area.							X		I
	o Personnel responsible for maintaining status boards should be trained to maintain the additional status board in accident assessment.							X		I

No.	Description and Recommended Corrective Action	NUREG-0654 FEMA-REP-1 Rev. 1, Reference[a]	Class[b]	Issue Identified: Exercise 3/3/82	Exercise 3/9/83	Exercise 11/28/84	Remedial Exercise 4/10/85	Exercise 6/4/86	Remedial Exercise 11/10-12/3/86	Present Status[c]
6.	Some confusion resulted at the Putnam County EOC when information about re-routing traffic around an impediment to evacuation was not included in the EBS message that was issued at about 1421. Putnam County should consult with the other three (3) counties and the State andreach agreement on guidelines for the inclusion of material in EBS messages and on where decisions are made on the content of EBS messages.	E	ARCA					X		I
7.	Except for the county sheriff's first responders and barricades, the dispatch of all equipment and personnel required for dealing with impediments was simulated; the exercise scenario required that actual equipment be dispatched. Putnam County should dispatch actual equipment and personnel to the scene of impediments for evacuation during the next exercise.	N.1.b	ARCA					X		I
8.	The accident assessment staff were unsure as to whether the Putnam County Health Department or the accident assessment group had the authority to authorize field monitoring teams to ingest KI. The accident assessment staff should be trained to understand the KI policy, and in particular who	K.4	ARCA					X		I

TABLE 3.8 (Cont'd)

No.	Description and Recommended Corrective Action	NUREG-0654 FEMA-REP-1 Rev. 1, Reference[a]	Class[b]	Issue Identified						Present Status[c]
				Exercise 3/3/82	Exercise 3/9/83	Exercise 11/28/84	Remedial Exercise 4/10/85	Exercise 6/4/86	Remedial Exercise 11/10-12/3/86	
	has authority to recommend theingestion ofKI and the one-over-one chain of command by which that decision is communiated to field monitoring teams.									
9.	The lead PIO at the Putnam County EOC did not demonstrate a shift change. There was a rotation in one of the PIO positions, but the person rotated into this position had been present in the EOC during most of the exercise. An actual shift change should be demonstrated for the lead PIO position during the next exercise and personnel who have not been present in the EOC should be used as the incoming shift.	A.4	ARCA					X		I
10.	Internal communications in the EOC need to be improved by (1) developing and utilizing standard procedures for maintaining message logs and distributing messages; (2) updating the status board more frequently; and (3) holding more frequent and more comprehensive staff briefings.	F.1.d				X				C
11.	Although field data were effectively transmitted backto the EOC, necessary information updates were not transmitted to the field monitoring teams. Information exchange between the EOC and field monitoring teams needs to be	F.1.d			X					C

TABLE 3.8 (Cont'd)

No.	Description and Recommended Corrective Action	NUREG-0654 FEMA-REP-1 Rev. 1, Reference[a]	Class[b]	Issue Identified: Exercise 3/3/82	Exercise 3/9/83	Exercise 11/28/84	Remedial Exercise 4/10/85	Exercise 6/4/86	Remedial Exercise 11/10-12/3/86	Present Status[c]
	improved so that field teams are kept informed of emergency escalation and meteorological data.									
12.	Alternates for the CD Director and RADEF Officer should be trained as soon as possible.	A.4		X						C
13.	An emergency power generator should be considered for use during a power failure.	A.4 F.1.d		X						C
14.	Criteria should be developed in conjunction with the state and other counties to determine what type of information will be aired over EBS and what type will be issued in news releases.	E.5		X						C
15.	The Orange County EOC should be added to the hot-line network so that all of the county EOCs can readily communicate with each other, e.g., Putnam with Orange.	F.1.d		X						C
16.	Procedures for transmitting meteorological data, plant emissions data, and data obtained by the utility field monitoring teams from the utility and EOF to the EOC should be reviewed and strengthened.	F.1.d I.8		X						C

No.	Description and Recommended Corrective Action	NUREG-0654 FEMA-REP-1 Rev. 1, Reference[a]	Class[b]	Issue Identified: Exercise 3/3/82	Exercise 3/9/83	Exercise 11/28/84	Remedial Exercise 4/10/85	Exercise 6/4/86	Remedial Exercise 11/10-12/3/86	Present Status[c]
17.	Procedures should be developed for identifying rumors and for dealing with them.	G.4.c		X						C
18.	The arrangement of tables and the locatios for each emergency worker in the EOC should be reviewed to minimize the effects of the small space on the operations.	H.3		X						C
19.	Procedures for security should be reviewed.	H.3		X						C
20.	All major press briefings should be announced in advance so that PIOs can attend.	G.4.a		X						C
21.	Future exercise scenarios should provide more time for a detailed recovery activity.	M.1		X						C
22.	Although field teams demonstrated capability and resources for field monitoring within the 10-mile plume exposure pathway EPZ, they were not completely familiar with the procedures outlined in the procedure manual. Field teams need additional training consistent with procedures outlined in the procedure manual.	I.7			X					C

No.	Description and Recommended Corrective Action	NUREG-0654 FEMA-REP-1 Rev. 1, Reference[a]	Class[b]	Issue Identified						Present Status[c]
				Exercise 3/3/82	Exercise 3/9/83	Exercise 11/28/84	Remedial Exercise 4/10/85	Exercise 6/4/86	Remedial Exercise 11/10-12/3/86	
23.	Monitoring teams should be dispatched to the field at the earliest possible time, so that they are in a position to provide data for an independent early assessment of the emergency.	H.4 I.8		X						C
24.	The number of samples needed for an independent early assessment, and the possible hinderances to fast deployment of the field monitoring teams should be reviewed in order to assess the possible need for additional field monitoring teams.	I.8		X						C
25.	Procedures should be developed for obtaining the field data measured by the utility's field monitoring teams.	I.8		X						C
26.	Silver zeolite filters should be used in the air sampling equipment that is used for measuring radioiodine. Charcoal filters may be used during drills and exercises but the silver zeolite filter should be in the instrument kits ready for use in an actual emergency.	I.9		X						C
27.	The sequence of sample points used (routes driven by monitoring teams) should be carefully chosen to give the maximum amount of data for use in making the early independent assessment.	I.8		X						C

No.	Description and Recommended Corrective Action	NUREG-0654 FEMA-REP-1 Rev. 1, Reference[a]	Class[b]	Issue Identified: Exercise 3/3/82	Exercise 3/9/83	Exercise 11/28/84	Remedial Exercise 4/10/85	Exercise 6/4/86	Remedial Exercise 11/10-12/3/86	Present Status[c]
28.	The bus driver on general population evacuation route #96 had only a minimal knowledge of the specific route and did not know the location of the reception center. Bus drivers assigned to general population evacuation routes should receive additional training to familiarize them with the routes they are todrive, the pickup points on the routes, and the location of the reception center.	O.1	ARCA		X	X		X		I
29.	The route selection for general population evacuation bus route #96 was questionable; the route included narrow, unpaved roads which could be difficult to negotiate in adverse weather or traffic conditions. The route selection from route #96 to the reception center might be improved, as the current route is indirect, adding to the transit time. The driver on route #96 suggested improvements to the route. The bus routes for the evacuation of the general population inPutnam County should be reviewed and revised if possible to avoid roads of poor quality and to provide direct routes to the reception centers unless other considerations dictate retention of the current routes. The input of drivers for alternatives to the existing routes could prove beneficial.	J.10.k	ARCA					X		I

No.	Description and Recommended Corrective Action	NUREG-0654 FEMA-REP-1 Rev. 1, Reference[a]	Class[b]	Issue Identified: Exercise 3/3/82	Exercise 3/9/83	Exercise 11/28/84	Remedial Exercise 4/10/85	Exercise 6/4/86	Remedial Exercise 11/10-12/3/86	Present Status[c]
30.	The driver of the pickup vehicle was not aware that noninstitutionalized mobility-impaired individuals were to be taken to the reception center. Individuals responsible for transporting the noninstitutionalized mobility-impaired should be trained in the procedures required by the plan, particularly the requirement that they be transported to the reception center after pickup.	O.1	ARCA					X		I
31.	The bus on general population evacuation route #93 was delayed about thirty (30) minutes in reaching its first pick-up point because the map being used by the driver was unclear causing the driver toturn off the route onto an unmarked road. On route #96, there were errors in the route instructions and the maps were of poor quality, causing confusion on the part of the driver. Three (3) of the seven (7) pickup points were unmarked, minor crossroads, making identification difficult. Instructions given to bus drivers on general population evacuation routes should be corrected and the clarity of the maps routes should be improved by marking the turning angles at intersections more clearly and providing for the unambiguous identification of pickup points.	J.10.a	ARCA		X	X		X		I

No.	Description and Recommended Corrective Action	NUREG-0654 FEMA-REP-1 Rev. 1, Reference[a]	Class[b]	Issue Identified: Exercise 3/3/82	Exercise 3/9/83	Exercise 11/28/84	Remedial Exercise 4/10/85	Exercise 6/4/86	Remedial Exercise 11/10-12/3/86	Present Status[c]
32.	There were six (6) radios for communicating between buses and the bus garage for the evacuation of the general population. However, only five (5) of these radios were working and the Haldane School District is responsible for nine (9) general population evacuation routes. Each bus used for evacuation of the general population should be equipped with atwo-way radio.	J.10.g	ARCA		X	X		X		I
33.	Route-alerting messages and procedures should be developed to supplement the siren system, especially in those areas of low siren sound level.	E.6 J.10.c		X						C
34.	Test measurements of sound level should be made throughout the 10-mile EPZ. Modifications and/or additions should then be made until the system meets the notification requirements.	E.6 J.10.c		X						C
35.	Procedures for dealing with impediments to evacuation need to be developed and exercised. These impediments include auto accidents, auto breakdowns, severe road conditions and the unavailability of gasoline when needed.	J.10.k		X						C

No.	Description and Recommended Corrective Action	NUREG-0654 FEMA-REP-1 Rev. 1, Reference[a]	Class[b]	Issue Identified: Exercise 3/3/82	Exercise 3/9/83	Exercise 11/28/84	Remedial Exercise 4/10/85	Exercise 6/4/86	Remedial Exercise 11/10-12/3/86	Present Status[c]
36.	Members of the radiological field monitoring team did not know that the county plan requires members of the team to report to their team supervisor at a dose reading of 0.1 R (100 mR). The lowest DRD officially carried by field monitoring team members(0-5 R) would not allow accurate determination of this dose, since the scale increments are 200 mR.	K	ARCA							
	o Members of the radiological field monitoring teams should be trained in the requirement to report to their team supervisor at a dose of 100 mR.							X		I
	o The Putnam County plan should be revised to require field monitoring teams to carry 0-200 mR DRDs for the purpose of determining when a dose level of 100 mR has been reached.							X		I

No.	Description and Recommended Corrective Action	NUREG-0654 FEMA-REP-1 Rev. 1, Reference[a]	Class[b]	Issue Identified: Exercise 3/3/82	Exercise 3/9/83	Exercise 11/28/84	Remedial Exercise 4/10/85	Exercise 6/4/86	Remedial Exercise 11/10-12/3/86	Present Status[c]
37.	The Putnam County plan is unclear as to whether members of the field monitoring teams must notify their supervisors when a dose of 1 R has been received. A report to the shift supervisor is required of emergency personnel by point 2 of Attachment 11 to Procedure 4 which also specifically mentions the 3 R action level. However, Section 3.2 of Attachment 13 giving instruction for the radiation field monitoring teams mentions only the 100 mR and 3 R ction level. The Putnam County plan should be clasified by either specifically including or specifically excluding the 1 R action level in Attachment 13 to Procedure 4.	K	ARCA					X		I
38.	Emergency workers assigned to the evacuation of the noninstitutionalized mobility-impaired were not familiar with dosimetry and dosimetry procedures. Emergency workers assigned to the evacuation of the noninstitutionalized mobility-impaired should receive additional training in the requirements of the county plan for the use of dosimetry and the associated action levels.	O.1	ARCA					X		I

No.	Description and Recommended Corrective Action	NUREG-0654 FEMA-REP-1 Rev. 1, Reference[a]	Class[b]	Issue Identified						Present Status[c]
				Exercise 3/3/82	Exercise 3/9/83	Exercise 11/28/84	Remedial Exercise 4/10/85	Exercise 6/4/86	Remedial Exercise 11/10-12/3/86	
39.	The county highway worker at TCP 4B at the intersection of Peekskill Hollow Road and bryant Pond Road was not familiar with the authorization procedure for taking KI. Additional training in the authorization procedure for KI should be given to county highway workers who might be called upon to assist at TCPs.	O.1	ARCA					X		I
40.	The emergency workers assigned to the evacuation of the noninstitutionalized mobility-impaired were not familiar with the authorization procedure for taking KI. Additional training in the authorization procedure for KI should be given to emergency workers assigned to the evacuation of the noninstitutionalized mobility-impaired.	O.1	ARCA					X		I
41.	The emergency worker at one TCP did not have KI. KI should be included in radiological emergency kits.	J.10.e				X				C
42.	Bus drivers at one dispatch point were unsure of the procedure regarding the use of KI. All emergency workers should be fully trained in radiological exposure control including the use of KI.	J.10.e				X				C

No.	Description and Recommended Corrective Action	NUREG-0654 FEMA-REP-1 Rev. 1, Reference[a]	Class[b]	Issue Identified						Present Status[c]
				Exercise 3/3/82	Exercise 3/9/83	Exercise 11/28/84	Remedial Exercise 4/10/85	Exercise 6/4/86	Remedial Exercise 11/10-12/3/86	
43.	The bus driver on general population evacuation route #93 did not check the dosimeter at the 15-30 minute intervals specified in the county plan. The driver read his dosimeter only three (3) times (once at the beginning, once at the first pickup point, and once at the end of the trip) during a trip of about two (2) hours and twelve (12) minutes. This driver used only the 0-200 mR dosimeter, did not know the dose authorization limit, and was unaware of the requirement to report to the PMC at the conclusion of the route. Bus drivers assigned to general population evacuation routes should receive additional training in the proper use of personal dosimetry, and the emergency worker radiological exposure control procedures specified in the county plan.	O.1	ARCA			X		X		I
44.	The county highway worker at TCP 4B at the intersection of Peekskill Hollow Road and Bryant Pond Road was not familiar with dosimetry and dosimetry procedures. He was unsure of the dose authorization limits and the procedures to follow if the dose exceeded the authorization limits. He was not familiar with the purpose for dosimeters, procedures for reading the	O.1	ARCA			X		X		I

No.	Description and Recommended Corrective Action	NUREG-0654 FEMA-REP-1 Rev. 1, Reference[a]	Class[b]	Issue Identified						Present Status[c]
				Exercise 3/3/82	Exercise 3/9/83	Exercise 11/28/84	Remedial Exercise 4/10/85	Exercise 6/4/86	Remedial Exercise 11/10-12/3/86	
	dosimeters, and the need for having both high-range and low-range dosimeters. County highway workers who might be assigned to TCPs should receive additional training in the requirements of the county plan for the use of dosimetry and the associated action levels.									
45.	The emergency workers at one TCP did not have any dosimetry. Permanent record dosimeters (e.g., film badges, TLDs) should be provided to emergency workers.	K.3.a				X				C
46.	Additional training is needed so that personnel monitoring workers will be more familiar with the action levels for decontamination actions.	K.5.a		X						C
47.	Additional training for those workers performing radiation monitoring and decontamination procedures is recommended.	K.5.b		X						C
48.	Permanent-record dosimeters (e.g., TLDs, film badges) should be provided.	K.3.a		X	X					C
49.	Procedures should be clarified so that all personnel know which individual (e.g., the County Executive) can approve emergency workers receiving a radiation exposure in excess of the PAGs.	K.4		X						C

No.	Description and Recommended Corrective Action	NUREG-0654 FEMA-REP-1 Rev. 1, Reference[a]	Class[b]	Issue Identified						Present Status[c]
				Exercise 3/3/82	Exercise 3/9/83	Exercise 11/28/84	Remedial Exercise 4/10/85	Exercise 6/4/86	Remedial Exercise 11/10-12/3/86	
50.	Training in methods for decontamination of equipment and supplies should be given to PMC workers.	K.5.b		X						C
51.	Methods for permanent disposal of contaminated articles (e.g., liquids, clothing) should be addressed.	K.5.b		X						C
52.	No information had been provided to parents of guardians of students of either the Noah's Ark Nursery School or the Putnam Valley Junior High School regarding emergency response procedures related to Indian Point. Parents or guardians of students in public, nonpublic, and nursery schools should be made aware of the procedures to be followed in the event of a radiological emergency at Indian Point.	G.2	ARCA					X		I
53.	The principal of the Putnam Valley Junior High School indicated that eight (8) buses would be required for evacuation. Based on Table 1, Attachment 1 to Procedure 5, Schools, of the Putnam County plan, only seven (7) buses have been allocated to the Putnam valley Junior High School. The allocation of bus resources to schools in Putnam County should be reviewed to ensure that the supply of buses is adequate to meet the demand in the event of a full evacuation.	J.10.g	ARCA					X		I

No.	Description and Recommended Corrective Action	NUREG-0654 FEMA-REP-1 Rev. 1, Reference[a]	Class[b]	Issue Identified						Present Status[c]
				Exercise 3/3/82	Exercise 3/9/83	Exercise 11/28/84	Remedial Exercise 4/10/85	Exercise 6/4/86	Remedial Exercise 11/10-12/3/86	
54.	The teacher interviewed at Noah's Ark Nursery School indicated that, in the event of an evacuation, the director would be responsible for implementing a telephone fanout procedure which would result in students being picked up by private automobiles. The Putnam County plan indicates that students in nursery schools are to be bused to reception centers in Dutchess County, and one (1) bus has been allocated to the Noah's Ark Nursery School. Teachers in nursery schools in Putnam County should be made aware that buses are to be made available to evacuate children in the event of a radiological emergency and that this procedure may differ from the normal early dismissal procedure requiring pickup of students by private automobiles.	J.10.g O.1	ARCA					X		I
55.	The assistant director at the Walter Hoving Home indicated that if the tone alert sounded, the situation would be verified and the procedures in the public information brochure would be followed. He also said that he was not sure what he would do if the sirens sounded without the tone alert sounding. The public information brochure for Putnam County does not mention the Walter Hoving Home and the county plan	J.10.d	ARCA					X		I

No.	Description and Recommended Corrective Action	NUREG-0654 FEMA-REP-1 Rev. 1, Reference[a]	Class[b]	Issue Identified: Exercise 3/3/82	Exercise 3/9/83	Exercise 11/28/84	Remedial Exercise 4/10/85	Exercise 6/4/86	Remedial Exercise 11/10-12/3/86	Present Status[c]
	classifies Walter Hoving as a special medical facility for which evacuation vehicles will be provided. Additional efforts should be undertaken in Putnam County to ensure that all personnel with responsibilities for the direction of special medical facilities are aware of the planned procedures for their facilities to follow in the event of radiological emergency at Indian Point.									
56.	The secretary at Garrison Union Free School had not seen a copy of the public information brochure. Additional educational efforts should be undertaken in Putnam County to acquaint all responsible personnel at schools and special facilities with the existence and content of the public information brochure.	G.2	ARCA					X		I
57.	Intense efforts should be made to make the public aware of the meaning of the siren signals.	G.2	ARCA	X				X		I
58.	A simpler alternative to the ERPA zone designations should be developed, or a very complete educational campaign that includes distribution of maps showing these areas should be conducted.	G.1 J.10.a		X						C

No.	Description and Recommended Corrective Action	NUREG-0654 FEMA-REP-1 Rev. 1, Reference[a]	Class[b]	Issue Identified: Exercise 3/3/82	Exercise 3/9/83	Exercise 11/28/84	Remedial Exercise 4/10/85	Exercise 6/4/86	Remedial Exercise 11/10-12/3/86	Present Status[c]
59.	Additional public education is needed so that the public will understand the locations of the areas that are to take the protective actions and will know how to carry out the protective actions.	G.1 J.10.a		X						C
60.	The ambulance crew communicated the wrong contamination units to the Putnam Hospital Center, reporting 3000 Rem rather than 3000 cpm. The mistake could have been avoided had the simulated reading the associated units been recorded immediately after receipt of the information from the evaluator. Additional training emphasizing the immediate recording of meter readings and the units in which the reading are made should be given to ambulance personnel.	O.4.h	ARCA	X				X		I

No.	Description and Recommended Corrective Action	NUREG-0654 FEMA-REP-1 Rev. 1, Reference[a]	Class[b]	Issue Identified						Present Status[c]
				Exercise 3/3/82	Exercise 3/9/83	Exercise 11/28/84	Remedial Exercise 4/10/85	Exercise 6/4/86	Remedial Exercise 11/10-12/3/86	
61.	The nurse/recorder at the Putnam Hospital Center did not record the patient's contamination level initially and after each decontamination procedure. Additional training in the necessity of keeping records of the contamination levels should be given to individuals responsible for keeping records during the decontamination procedure.	O.4.h	ARCA					X		I

[a]NUREG-0654, FEMA, REP-1, Rev. 1, Criteria for Preparation and Evaluation of Radiological Emergency Response Plans and Preparedness in Support of Nuclear Power Plants, Part II.

N/R: No NUREG-0654 reference.

[b]Def.: Deficiency.
ARCA: Area Requiring Corrective Action.

These classifications were added to the table beginning with the 6/4/86 exercise and are not given for problems identified only at previous exercise.

[c]C: Remedial action complete.
I: Remedial action incomplete.

TABLE 3.9 INDIAN POINT NUCLEAR POWER STATION -- SUMMARY OF DEFICIENCIES
AND AREAS REQUIRING CORRECTIVE ACTION
JULY 7, 1987
DUTCHESS COUNTY

No.	Description and Recommended Corrective Action	NUREG-0654 FEMA-REP-1 Rev. 1, Reference[a]	Class[b]	Issue Identified						Present Status[c]
				Exercise 3/3/82	Exercise 3/9/83	Exercise 11/28/84	Remedial Exercise 4/10/85	Exercise 6/4/86	Remedial Exercise 11/10-12/3/86	
1.	A shift change was not demonstrated for the Red Cross personnel operating the congregate care center. A shift change should be demonstrated by the Red Cross personnel operating the congregate care center and evaluated at the next exercise.	A.4	ARCA					X		I
2.	Information on the designated reception center for evacuated schoolchildren was available at the EOC but this information was not passed on the the reception center.	J.12	ARCA							
	o Social service staff should be kept informed as to where children from evacuated schools are being taken.							X		I
	o Information on the reception centers being used for specific schools should be promptly transmitted from the EOC to the appropriate reception centers.							X		I

[a]NUREG-0654, FEMA, REP-1, Rev. 1, Criteria for Preparation and Evaluation of Radiological Emergency Response Plans and Preparedness in Support of Nuclear Power Plants, Part II.

N/R: N[redacted]G-0654 reference.

[b]Def.: D[redacted]ency.
[redacted] Requiring Corrective Action

These classifications were added to the table beginning with the 6/4/86 exercise and are not given for problems identified only at previous exercise.

[c]C: Remedial action complete.
I[redacted]edial action incomplete.

TABLE 3.10 INDIAN POINT NUCLEAR POWER STATION -- SUMMARY OF DEFICIENCIES AND AREAS REQUIRING CORRECTIVE ACTION
JULY 7, 1987
BERGEN COUNTY, NEW JERSEY

No.	Description and Recommended Corrective Action	NUREG-0654 FEMA-REP-1 Rev. 1, Reference[a]	Class[b]	Issue Identified: Exercise 3/3/82	Exercise 3/9/83	Exercise 11/28/84	Remedial Exercise 4/10/85	Exercise 6/4/86	Remedial Exercise 11/10-12/3/86	Present Status[c]
1.	The dedicated telephone tieline interlinking Bergen and Rockland Counties was not operational and was reported to have been inoperable for the past six (6) months. Problems were also experienced in the RACES radio link with the Rockland County EOC and radio communications were not established until about 1130.	F.1.b	ARCA							
	o All communication equipment should be made operational and tested in accordance with plans.							X		C
	o RACES radio procedures should also be tested.							X		C
	o The functioning of the radio system and availability of the operators should be evaluated on a periodic basis.							X		C
2.	Some staff were prepositioned at the Bergen County EOC. Therefore, the efficiency of the staffing procedures could not be evaluated for all staff positions. Increased staffing in response to the escalating emergency could not be systematically demonstrated because of poor information flow from the Rockland County. The	A.4	ARCA					X		I

No.	Description and Recommended Corrective Action	NUREG-0654 FEMA-REP-1 Rev. 1, Reference[a]	Class[b]	Issue Identified: Exercise 3/3/82	Exercise 3/9/83	Exercise 11/28/84	Remedial Exercise 4/10/85	Exercise 6/4/86	Remedial Exercise 11/10-12/3/86	Present Status[c]
	ability to promptly activate staff following notification of an Alert ECL and to increase staff needs in response to escalating emergency conditions should be demonstrated at the Bergen County EOC during the next exercise.									
3.	A status board, a plume EPZ map, and maps showing the locations of evacuation routes, reception centers, and congregate care centers were not posted in the Bergen County EOC. These displays would improve the emergency management planning for all county departments. o A status board, plume EPZ map and maps designating the locations of evacuation routes, reception centers, and congregate care facilities should be posted in the Bergen County EOC. o The status board should be updated regularly.	J.12	ARCA					X		I
4.	Due to inadequate information flow to the Bergen County EOC, traffic control activities were not demonstrated at the congregate care center. Traffic control at the congregate care center should be demonstrated at the next exercise.	J.12	ARCA					X		I

No.	Description and Recommended Corrective Action	NUREG-0654 FEMA-REP-1 Rev. 1, Reference[a]	Class[b]	Issue Identified: Exercise 3/3/82	Exercise 3/9/83	Exercise 11/28/84	Remedial Exercise 4/10/85	Exercise 6/4/86	Remedial Exercise 11/10-12/3/86	Present Status[c]
5.	Communications between the Rockland County EOC and the bergen County EOC were difficult to complete. Arrangements for Bergen County to send an operations liaison to the Rockland County EOC have not been completed. Representatives of Bergen County and New Jersey should meet with representatives of New York and Rockland County to establish the responsibilities of a Bergen County EOC liaison and ensure that this function will be staffed in the future.	F.1.b				X	X	X		C
6.	Maps of the 10-mile EPZ, including population (by ErPA) and evacuation routes, and maps of reception centers and relocation centers in Rockland and Bergen Counties were not posted in the Bergen County EOC. These maps should be in the Bergen County EOC.	J.10.a J.10.b			X					C

[a]NUREG-0654, FEMA, REP-1, Rev. 1, Criteria for Preparation and Evaluation of Radiological Emergency Response Plans and Preparedness in Support of Nuclear Power Plants, Part II.

N/R: No NUREG-0654 reference.

[b]Def.: Deficiency.
ARCA: Area Requiring Corrective Action.

These classifications were added to the table beginning with the 6/4/86 exercise and are not given for problems identified only at previous exercise.

[c]C: Remedial action complete.
I: Remedial action incomplete.

II. STATUS OF OBJECTIVES

The objectives for radiological emergency preparedness exercises are developed to correspond to the observable elements of NUREG-0654/FEMA-REP-1, Rev. 1. FEMA had defined thirty-six (36) core objectives to test major portions of emergency response capabilities. FEMA Region II and the State of New York have defined additional objectives. Tables 4.1 through 4.10 list the status of these latter objectives for the State, the EOF, the JNC, and the local jurisdictions by exercise date. Where applicable, the corresponding core objective is referenced.

The tables include the conclusions and recommendations from the Indian Point Interim Finding dated April 9, 1987.

TABLE 4.1 INDIAN POINT NUCLEAR POWER STATION -- STATUS OF OBJECTIVES
July 7, 1987
NEW YORK STATE

Core Objective[a]	Exercise Objective[b]	Exercise 3/3/82	Exercise 3/9/83	Exercise 11/28/84	Remedial Exercise 4/10/85	Exercise 6/4/86	Remedial Exercise 11/10-12/3/86
5	Demonstrate the ability to receive and verify the initial and followup emergency notifications from the licensee.	A	A	A	A	A	N/O
1	Demonstrate the ability to mobilize staff and activate the State EOC in a timely manner.	A	A	A	A	A	N/O
2	Demonstrate the ability to maintain staffing in the EOC on a 24-hr basis (through rosters or actual shift change)	A	A	A	N/O	N/O	N/O
4	Demonstrate that the State EOC has adequate space, equipment, and supplies to support emergency operations.	A	A	A	N/O	N/O	N/O
5	Demonstrate that State, counties, and utility can establish appropriate communication links, both primary and backup systems.	I	A	A	A	I	N/O
4	Demonstrate that the State EOC has adequate access control and that security can be maintained.		A	A	N/O	A	N/O
3	Demonstrate that messages are transmitted in an accurate and timely manner, that messages are properly logged, that status boards are accurately maintained and updated, that appropriate briefings are held, and that incoming personnel are briefed.	I		I	N/O	A	N/O
3	Demonstrate that the designated official is in charge and in control of an overall coordinated response.	A	A	A	A	A	N/O

TABLE 4.1 (Cont'd)

Core Objective[a]	Exercise Objective[b]	Exercise 3/3/82	Exercise 3/9/83	Exercise 11/28/84	Remedial Exercise 4/10/85	Exercise 6/4/86	Remedial Exercise 11/10-12/3/86
5	Demonstrate the ability to communicate with all appropriate locations, organizations, and field personnel.	I	A	A	N/O	A	N/O
33	Demonstrate the ability to identify the need for, request, and obtain Federal assistance.		A	A	N/O	A	N/O
11	Demonstrate the ability to make appropriate protective action recommendations to the public based on utility recommendations, independent recommendations from the accident assessment group, and offsite factors such as evacuation time estimates and traffic conditions.	I		A	A	A	N/O
14	Demonstrate the ability to coordinate with the local officials initiating alerting and instructional messages.			A	A	A	N/O
15	Demonstrate the ability to prepare and implement EBS to alert the public within the 10-mile EPZ in a timely manner (i.e., within 15 minutes after command and control decision for protective action recommendations).		A	N/O	N/O	N/O	N/O
15	Demonstrate that the transmission of the EBS message can be properly coordinated with the activation of the prompt notification siren system.		A	N/O	N/O	N/O	N/O
15	Demonstrate the public notification system by activation of the siren system and activation of the EBS to transmit an exercise test message.	I		N/O	N/O	N/O	N/O

TABLE 4.1 (Cont'd)

Core Objective[a]	Exercise Objective[b]	Exercise 3/3/82	Exercise 3/9/83	Exercise 11/28/84	Remedial Exercise 4/10/85	Exercise 6/4/86	Remedial Exercise 11/10-12/3/86
11	Demonstrate the ability to project radiation dosage to the public via plume exposure, based on plant data and field measurements, and to determine appropriate protective measures, based on PAGs.	A		A	A	A	N/O
12	Demonstrate the ability to project radiation dosage to the public via ingestion pathway exposure, based on plant and field data, and to determine appropriate protective measures, based on PAGs and other relevant factors.	N/O	N/C	N/O	N/O	N/O	N/O
13	Demonstrate the ability to implement protective measures for ingestion pathways hazards if warranted.	N/O	N/C	N/O	N/O	N/O	N/O
21	Demonstrate the decision chain that has been established to authorize exposure for emergency workers in excess of the general public PAGs.	A	A	A	N/O	N/O	N/O
35	Demonstrate the ability to estimate total population exposures.			N/O	N/O	N/O	N/O
36	Demonstrate the ability to determine and implement appropriate measures for controlled reentry and recovery based on measurements of the amount of contamination present and predetermined criteria.	N/O	N/C	N/O	N/O	N/O	N/O
5	Demonstrate the ability to communicate with all appropriate locations, organizations, and field personnel.	I	A	A	N/O	N/O	N/O
21	Demonstrate the ability to continuously monitor and control emergency worker exposure including proper use of personnel dosimetry.	I	A	I	N/O	N/O	N/O

TABLE 4.1 (Cont'd)

Core Objective[a]	Exercise Objective[b]	Exercise 3/3/82	Exercise 3/9/83	Exercise 11/28/84	Remedial Exercise 4/10/85	Exercise 6/4/86	Remedial Exercise 11/10-12/3/86
21	Demonstrate that emergency workers understand who can authorize excess exposure under the Protective Action Guidelines.			I	N/O	N/O	N/O
23	Demonstrate the ability to supply and administer KI, once the decision has been made to do so.	N/O	N/O	A	N/O	N/O	N/O
30	Demonstrate adequate equipment and procedures for decontamination of emergency workers, equipment, and vehicles, including adequate provisions for handling contaminated waste.			A	N/O	N/O	N/O
9	Demonstrate appropriate equipment and procedures for the collection and transport of samples of soil, vegetation, snow, water or milk, etc.	N/O	N/C	N/O	N/O	N/O	N/O
10	Demonstrate the ability to mobilize staff and activate the State Radiological Laboratory in a timely manner.			N/O	N/O	N/O	N/O
10	Demonstrate the ability to maintain staffing in the State Radiological Laboratory on a 24-hour basis (through rosters or actual shift change).			N/O	N/O	N/O	N/O
10	Demonstrate appropriate laboratory equipment and procedures for measuring and analyzing radioactive samples.			N/O	N/O	N/O	N/O

[a] FEMA Guidance Memorandum 17, Revision 1, Feb. 16, 1984.

[b] A: Adequately Demonstrated
I: Inadequately Demonstrated
N/O: Not an Objective
N/E: Not Evaluated
N/C: Not Credited - Any evaluation prior to August 5, 1983 were not based on current FEMA guidance.

TABLE 4.2 INDIAN POINT NUCLEAR POWER STATION -- STATUS OF OBJECTIVES
July 7, 1987
NEW YORK STATE - SOUTHERN DISTRICT

Core Objective[a]	Exercise Objective[b]	Exercise 3/3/82	Exercise 3/9/83	Exercise 11/28/84	Remedial Exercise 4/10/85	Exercise 6/4/86	Remedial Exercise 11/10-12/3/86
1	Demonstrate the ability to mobilize staff and activate the Southern District EOC in a timely manner.	A	A	A	N/O	A	N/O
2	Demonstrate the ability to maintain staffing in the Southern District EOC on a 24-hr basis (through rosters or actual shift change).		A	A	N/O	N/O	N/O
4	Demonstrate that the Southern District EOC has adequate space, equipment, and supplies to support emergency operations.	A	A	A	N/O	N/O	N/O
4	Demonstrate that the Southern District EOC has adequate access control and security can be maintained.			A	N/O	N/O	N/O
5	Demonstrate that messages are transmitted in an accurate and timely manner, that messages are properly logged, that status boards are accurately maintained and updated, that appropriate briefings are held, and that incoming personnel are briefed.	I	A	A	N/O	A	N/O
3	Demonstrate that the designated official is in charge and in control of an overall coordinated response.	A	A	A	N/O	A	N/O

TABLE 4.2 (Cont'd)

Core Objective[a]	Exercise Objective[b]	Exercise 3/3/82	Exercise 3/9/83	Exercise 11/28/84	Remedial Exercise 4/10/85	Exercise 6/4/86	Remedial Exercise 11/10-12/3/86
5	Demonstrate the ability to communicate with all appropriate locations, organizations, and field personnel.		A	A	N/O	A	N/O

[a]FEMA Guidance Memorandum 17, Revision 1, Feb. 16, 1984.

[b] A: Adequately Demonstrated
I: Inadequately Demonstrated
N/O: Not an Objective
N/E: Not Evaluated

TABLE 4.3 INDIAN POINT NUCLEAR POWER STATION -- STATUS OF OBJECTIVES
July 7, 1987
Emergency Operations Facility

Core Objective[a]	Exercise Objective[b]	Exercise 3/3/82	Exercise 3/9/83	Exercise 11/28/84	Remedial Exercise 4/10/85	Exercise 6/4/86	Remedial Exercise 11/10-12/3/86
1	Demonstrate the ability to mobilize staff and activate State functions at the EOF in a timely manner.	A	A	A	A	A	N/O
2	Demonstrate the ability to maintain staffing of State functions in the EOF on a 24-hour basis (through rosters or actual shift change).	A	A	A	N/O	N/O	N/O
4	Demonstrate that the Emergency Operations Facility has adequate space, equipment, and supplies to support emergency operations.	I	A	A	N/O	N/O	N/O
4	Demonstrate that the Emergency Operations Facility has adequate access control and that security can be maintained.		A	A	N/O	N/O	N/O
5	Demonstrate the ability to communicate with all appropriate locations, organizations, and field personnel.	I	A	N/O	N/O	A	N/O
5	Demonstrate that messages are transmitted in an accurate and timely manner, messages are properly logged, that status boards are accurately maintained and updated, that appropriate briefings are held, and that incoming personnel are briefed.		A	N/O	N/O	A	N/O
1	Demonstrate the ability to mobilize staff and activate county functions at the EOF in a timely manner (Westchester County only).			A	N/O	N/O	N/O

TABLE 4.3 (Cont'd)

Core Objective[a]	Exercise Objective[b]	Exercise 3/3/82	Exercise 3/9/83	Exercise 11/28/84	Remedial Exercise 4/10/85	Exercise 6/4/86	Remedial Exercise 11/10-12/3/86
2	Demonstrate through rosters the ability to maintain staffing of county functions in the EOF on a 24-hour basis (Westchester County only).			A	N/O	N/O	N/O

[a]FEMA Guidance Memorandum 17, Revision 1, Feb. 16, 1984.

[b] A: Adequately Demonstrated
I: Inadequately Demonstrated
N/O: Not an Objective
N/E: Not Evaluated

TABLE 4.4 INDIAN POINT NUCLEAR POWER STATION -- STATUS OF OBJECTIVES
July 7, 1987
JOINT NEWS CENTER

Core Objective[a]	Exercise Objective[b]	Exercise 3/3/82	Exercise 3/9/83	Exercise 11/28/84	Remedial Exercise 4/10/85	Exercise 6/4/86	Remedial Exercise 11/10-12/3/86
1	Demonstrate the ability to mobilize staff and activate State functions at the Joint News Center in a timely manner.	A	A	A	A	A	N/O
2	Demonstrate the ability to maintain staffing of State functions in the Joint News Center on a 24-hour basis (through rosters or actual shift change).	A	A	A	N/O	A	N/O
25	Demonstrate the ability to brief the media in a clear, accurate, and timely manner.	A	A	A	A	A	N/O
26	Demonstrate the ability to share information with other agencies at the Joint News Center prior to its release.	A	A	A	A	A	N/O
27	Demonstrate the ability to establish and operate rumor control in a coordinated manner.	I	A	A	N/O	A	N/O
14	Demonstrate the ability to prepare and implement EBS in a timely manner (i.e., within 15 minutes after command and control decision for protective action recommendations).	N/O	N/O	I	A	A	N/O
14	Demonstrate the ability to prepare EBS messages in accordance with the content agreement as to items necessary to be included.			N/O	N/O	I	N/O
4	Demonstrate that the Joint News Center has adequate space, equipment, and supplies to support emergency operations.	N/O	N/O	N/O	N/O	N/O	N/O

[a] FEMA Guidance Memorandum 17, Revision 1, Feb. 16, 1984.

[b] A: Adequately Demonstrated
I: Inadequately Demonstrated
N/O: Not an Objective
N/E: Not Evaluated

TABLE 4.5 INDIAN POINT NUCLEAR POWER STATION -- STATUS OF OBJECTIVES
July 7, 1987
WESTCHESTER COUNTY

Core Objective[a]	Exercise Objective[b]	Exercise 3/3/82	Exercise 3/9/83	Exercise 11/28/84	Remedial Exercise 4/10/85	Exercise 6/4/86	Remedial Exercise 11/10-12/3/86	Remedial Exercise 2/18/87
5	Demonstrate the ability to receive initial and followup emergency notifications.	A	A	A	A	A	N/O	N/O
1	Demonstrate the ability to mobilize staff and activate the EOC in a timely manner.	A	A	A	A	I	N/O	N/O
2	Demonstrate the ability to maintain staffing in the EOC on a 24-hour basis (through rosters or actual shift change).	A	A	A	N/O	I	N/O	N/O
4	Demonstrate that the county EOC has adequate space, equipment, and supplies to support emergency operations.	A	A	A	N/O	N/O	N/O	N/O
5	Demonstrate that the State and counties can establish appropriate communication links, both primary and backup systems.	A	A	A	A	A	N/O	N/O
4	Demonstrate that the county EOC has adequate access control and that security can be maintained.	A	A	A	N/O	N/O	N/O	N/O
5	Demonstrate that messages are transmitted in an accurate and timely manner, messages are properly logged, that status boards are accurately maintained and updated, that appropriate briefings are held, and that incoming personnel are briefed.	A	A	I	N/O	I	N/O	N/O
3	Demonstrate that the appropriate official is in charge and in control of an overall coordinated response.	A	A	A	A	A	N/O	N/O

TABLE 4.5 (Cont'd)

Core Objective[a]	Exercise Objective[b]	Exercise 3/3/82	Exercise 3/9/83	Exercise 11/28/84	Remedial Exercise 4/10/85	Exercise 6/4/86	Remedial Exercise 11/10-12/3/86	Remedial Exercise 2/18/87
3	Demonstrate the ability of the designated official to determine the need for and ability to obtain State assistance.		A	A	A	A	N/O	N/O
5	Demonstrate the ability to communicate with all appropriate locations, organizations, and field personnel.	A	A	A	A	A	N/O	N/O
11	Demonstrate the ability to project radiation dosage to the public via plume exposure, based on plant data and field measurements, and to determine appropriate protective measures, based on PAGs and other relevant factors.	I		A	A	A	N/O	N/O
12	Demonstrate the ability to project radiation dosage to the public via ingestion pathway exposure, based on plant and field data, and to determine appropriate protective measures, based on PAGs and other relevant factors.	N/O	N/C	N/O	N/O	N/O	N/O	N/O
13	Demonstrate the ability to implement protective measures for ingestion pathways hazards if warranted.	N/O	N/C	N/O	N/O	N/O	N/O	N/O
22	Demonstrate the ability to make the decision, based on predetermined criteria, whether to issue KI to emergency workers.			N/O	N/O	A	N/O	N/O
26	Demonstrate the ability to provide advance coordination of public alerting and instructional messages with the State and other counties.	I	A	A	A	A	N/O	N/O
16	Demonstrate the organizational ability to manage an orderly evacuation of all or part of the 10-mile EPZ.	A	A	A	N/O	I	N/O	N/O

TABLE 4.5 (Cont.'d)

Core Objective[a]	Exercise Objective[b]	Exercise 3/3/82	Exercise 3/9/83	Exercise 11/28/84	Remedial Exercise 4/10/85	Exercise 6/4/86	Remedial Exercise 11/10-12/3/86	Remedial Exercise 2/18/87
17	Demonstrate the organizational ability to deal with impediments to evacuation, such as inclement weather or traffic obstructions.	A		A	N/O	A	N/O	N/O
20	Demonstrate the organizational ability necessary to effect an early dismissal of schools within the 10-mile EPZ.	N/O		A	N/O	I	N/O	N/O
18	Demonstrate the organizational ability necessary to control access to an evacuation area.			A	N/O	I	N/O	N/O
20	Demonstrate the organizational ability necessary to effect an orderly evacuation of schools within the 10-mile EPZ. If this protective action is not recommended by the decision makers, e.g., schools were dismissed early, a free play controllers message may be inserted to demonstrate this activity.	N/O	N/O	A	N/O	N/O	N/O	N/O
14	Demonstrate the ability to activate the prompt notification siren system in coordination with State instructions.	A	A	A	N/O	A	N/O	N/O
1	Demonstrate the ability to mobilize staff and activate county PIO functions at the county EOC in a timely manner.	A	A	N/O	N/O	A	N/O	N/O
2	Demonstrate the ability to maintain staffing of PIO personnel in the county EOC on a 24-hour basis (through rosters or actual shift change).	N/O	N/O	N/O	N/O	A	N/O	N/O

TABLE 4.5 (Cont'd)

Core Objective[a]	Exercise Objective[b]	Exercise 3/3/82	Exercise 3/9/83	Exercise 11/28/84	Remedial Exercise 4/10/85	Exercise 6/4/86	Remedial Exercise 11/10-12/3/86	Remedial Exercise 2/18/87
26	Demonstrate the ability to share information with other agencies at the county EOC prior to its release.	A	A	N/O	N/O	A	N/O	N/O
27	Demonstrate the ability to establish and operate rumor control in a coordinated manner.	1	A	N/O	N/O	N/O	N/O	N/O
14,15	Demonstrate the ability to prepare and implement EBS in a timely manner (i.e., within 15 minutes after command and control decision for protective action recommendations).	N/O	N/O	N/O	N/O	A	N/O	N/O
1	Demonstrate the ability to mobilize staff and activate county functions at the Joint News Center in a timely manner.	A	A	A	A	N/O	N/O	N/O
2	Demonstrate the ability to maintain staffing of county functions in the Joint News Center on a 24-hour basis (through rosters or actual shift change).	N/O	N/O	A	N/O	I	N/O	N/O
25	Demonstrate the ability to brief the media in a clear, accurate, and timely manner.	I	A	A	A	A	N/O	N/O
26	Demonstrate the ability to share information with other agencies at the Joint News Center prior to its release.	A	A	A	A	A	N/O	N/O
27	Demonstrate the ability to establish and operate rumor control in a coordinated manner.	I	A	A	N/O	N/O	N/O	N/O
14,15	Demonstrate the ability to prepare and implement EBS in a timely manner (i.e., within 15 minutes after command and control decision for protective action recommendations).	N/O	N/O	I	A	N/O	N/O	N/O

TABLE 4.5 (Cont'd)

Core Objective[a]	Exercise Objective[b]	Exercise 3/3/82	Exercise 3/9/83	Exercise 11/28/84	Remedial Exercise 4/10/85	Exercise 6/4/86	Remedial Exercise 11/10-12/3/86	Remedial Exercise 2/18/87
4	Demonstrate that the Joint News Center has adequate space, equipment, and supplies to support emergency operations.	I	I	A	A	N/O	N/O	N/O
21	Demonstrate the ability to continuously monitor and control emergency worker exposure including proper use of personnel dosimetry.		A	A	N/O	I	N/O	N/O
6	Demonstrate the ability to mobilize and deploy field monitoring teams in a timely manner.	A	A	A	N/O	A	N/O	N/O
7	Demonstrate appropriate equipment and procedures for determining ambient radiation levels.	I		I	N/O	I	N/O	N/O
8	Demonstrate appropriate equipment and procedures for measurement of airborne radioiodine concentrations as low as 0.1 picocuries/cc in the presence of noble gases.	A		I	N/O	A	N/O	N/O
9	Demonstrate appropriate equipment and procedures for the collection and transport of samples of soil, vegetation, snow, water or milk, etc.	N/O	N/C	N/O	N/O	N/O	N/O	N/O
14	Demonstrate the ability to provide backup public alerting procedures, if necessary, in the event of partial siren system failure.	N/O	N/O	A	N/O	I	N/O	N/O
15	Demonstrate that the permanent population has received information on how they will be notified and what their actions should be in the [illegible]nt of a radiological emergency and that this [illegible]ormation is updated on an annual basis.	I	I	N/O	N/O	I	N/O	N/O

TABLE 4.5 (Cont'd)

Core Objective[a]	Exercise Objective[b]	Exercise 3/3/82	Exercise 3/9/83	Exercise 11/28/84	Remedial Exercise 4/10/85	Exercise 6/4/86	Remedial Exercise 11/10-12/3/86	Remedial Exercise 2/18/87
15	Demonstrate that information on emergency actions has been provided to transient populations.	I	I	N/O	N/O	I	N/O	N/O
18	Demonstrate that access control points can be established in a timely manner.	A	N/O	A	N/O		N/O	N/O
23	Demonstrate the ability to supply and administer KI, once the decision has been made to do so.		A	A	N/O	I	N/O	N/O
21	Demonstrate that emergency workers understand who can authorize excess exposure under the Protective Action Guidelines.			A	N/O	N/O	N/O	N/O
30	Demonstrate adequate equipment and procedures for decontamination of emergency workers, equipment and vehicles including adequate provisions for handling contaminated waste.	I		A	N/O	I	N/O	N/O
16	Demonstrate a sample of resources necessary to implement an orderly evacuation of all or part of the 10-mile EPZ.	A	I	A	N/O	I	I	A
17	Demonstrate a sample of resources necessary to deal with impediments to evacuation, such as inclement weather or traffic obstructions.	N/O		N/O	N/O	N/O	N/O	N/O
18	Demonstrate a sample of resources necessary to control access to an evacuated area.	A	N/O	N/O	N/O	A	N/O	N/O
19	Demonstrate a sample of resources necessary to effect an orderly evacuation of the noninstitutionalized mobility-impaired individuals within the 10-mile EPZ.	I	I	A	N/O	N/O	N/O	N/O

TABLE 4.5 (Cont'd)

Core Objective[a]	Exercise Objective[b]	Exercise 3/3/82	Exercise 3/9/83	Exercise 11/28/84	Remedial Exercise 4/10/85	Exercise 6/4/86	Remedial Exercise 11/10-12/3/86	Remedial Exercise 2/18/87
20	Demonstrate a sample of resources necessary to effect an orderly evacuation of schools within the 10-mile EPZ.	N/O		A	N/O	A	N/O	N/O
20	Demonstrate a sample of resources necessary to effect an early dismissal of schools within the 10-mile EPZ.	N/O	A	A	N/O	N/O	N/O	N/O
1	Demonstrate the ability to mobilize staff and activate reception/congregate care center in a timely manner.	A	A	A	N/O	N/E	N/O	N/O
2	Demonstrate the ability to maintain staffing at the reception center by shift change or roster and the congregate care center by shift change or roster for 24-hour operation.	A		I	N/O	A	N/O	N/O
28	Demonstrate the adequacy of procedures for registration and radiological monitoring of evacuees.			I	N/O	I	N/O	N/O
29	Demonstrate the adequacy of facilities for mass care of evacuees.	A		A	N/O	A	N/O	N/O
31	Demonstrate adequacy for ambulance facilities and procedures for handling injured and contaminated individuals. (Medical drill involves an on-site/off-site injury.)	N/O		A	N/O	N/O	N/O	N/O
32	Demonstrate adequacy of hospital facilities and procedures for handling injured and contaminated individuals. (Medical drill involves an on-site/off-site injury.)	N/O	N/O	A	N/O	A	N/O	N/O

TABLE 4.5 (Cont'd)

Core Objective[a]	Exercise Objective[b]	Exercise 3/3/82	Exercise 3/9/83	Exercise 11/28/84	Remedial Exercise 4/10/85	Exercise 6/4/86	Remedial Exercise 11/10-12/3/86	Remedial Exercise 2/18/87
36	Demonstrate the ability to implement appropriate measures for controlled reentry and recovery when directed to do so by the State.	I	N/C	N/O	N/O	N/O	N/O	N/O
24	Demonstrate the ability to effect an orderly evacuation of onsite personnel.	N/O	N/O	N/O	N/O	N/O	N/O	N/O

[a]FEMA Guidance Memorandum 17, Revision 1, Feb. 16, 1984.

[b]
A: Adequately Demonstrated
I: Inadequately Demonstrated
N/O: Not an Objective
N/E: Not Evaluated
N/C: Not Credited - Any evaluations prior to August 5, 1983 were not based on current FEMA guidance.

TABLE 4.6 INDIAN POINT NUCLEAR POWER STATION -- STATUS OF OBJECTIVES
July 7, 1987
ROCKLAND COUNTY

Core Objective[a]	Exercise Objective[b]	Exercise 3/3/82	Exercise 3/9/83	Exercise 11/28/84	Remedial Exercise 4/10/85	Exercise 6/4/86	Remedial Exercise 11/10-12/3/86
5	Demonstrate the ability to receive initial and followup emergency notifications.	I	A	A	A	A	N/O
1	Demonstrate the ability to mobilize staff and activate the EOC in a timely manner.	I	A	A	A	A	N/O
2	Demonstrate the ability to maintain staffing in in the EOC on a 24-hour basis (through rosters or actual shift change).	I	I	A	N/O	A	N/O
4	Demonstrate that the county EOC has adequate space, equipment, and supplies to support emergency operations.	I	A	A	N/O	N/O	N/O
5	Demonstrate that the State and counties can establish appropriate communication links, both primary and backup systems.	I	A	A	A	I	N/O
4	Demonstrate that the county EOC has adequate access control and that security can be maintained.	A	A	A	A	N/O	N/O
5	Demonstrate that messages are transmitted in an accurate and timely manner, messages are properly logged, that status boards are accurately maintained and updated, that appropriate briefings are held, and that incoming personnel are briefed.	I	A	I	I	I	N/O
3	Demonstrate that the appropriate official is in charge and in control of an overall coordinated response.	I	A	A	A	A	N/O

TABLE 4.6 (Cont'd)

Core Objective[a]	Exercise Objective[b]	Exercise 3/3/82	Exercise 3/9/83	Exercise 11/28/84	Remedial Exercise 4/10/85	Exercise 6/4/86	Remedial Exercise 11/10-12/3/86
3	Demonstrate the ability of the designated official to determine the need for and ability to obtain State assistance.	I	A	A	A	A	N/O
5	Demonstrate the ability to communicate with all appropriate locations, organizations, and field personnel.	I	A	A	A	I	N/O
5	Demonstrate the ability to communicate from the Rockland EOC to the Bergen EOC					I	A
11	Demonstrate the ability to project radiation dosage to the public via plume exposure, based on plant data and field measurements, and to determine appropriate protective measures, based on PAGs.	A	A	I	I	I	N/O
12	Demonstrate the ability to project radiation dosage to the public via ingestion pathway exposure, based on plant data and field data, and to determine appropriate protective measures, based on PAGs and other relevant factors.	N/O		N/O	N/O	N/O	N/O
34	Demonstrate the ability to relocate and operate or activate EOC, if involved in the plume.			N/O	N/O	A	N/O
13	Demonstrate the ability to implement protective measures for ingestion pathways hazards if warranted.	N/O	N/C	N/O	N/O	N/O	N/O
26	Demonstrate the ability to provide advance coordination of public alerting and instructional messages with the State and other counties.	I	A	A	A	A	N/O

TABLE 4.6 (Cont'd)

Core Objective[a]	Exercise Objective[b]	Exercise 3/3/82	Exercise 3/9/83	Exercise 11/28/84	Remedial Exercise 4/10/85	Exercise 6/4/86	Remedial Exercise 11/10-12/3/86
16	Demonstrate the organizational ability to manage an orderly evacuation of all or part of the 10-mile EPZ.	A	A	A	A	A	N/O
17	Demonstrate the organizational ability to deal with impediments to evacuation, such as inclement weather or traffic obstructions.	N/O		N/A	N/O	A	N/O
20	Demonstrate the organizational ability necessary to effect an early dismissal of schools within the 10-mile EPZ.	N/O	N/O	A	N/O	A	N/O
18	Demonstrate the organizational ability necessary to control access to an evacuated area.	A		A	N/O	A	N/O
20	Demonstrate the organizational ability necessary to effect an orderly evacuation of schools within the 10-mile EPZ. If this protective action is not recommended by the decision makers, e.g., schools were dismissed early, a free play controllers message may be inserted to demonstrate this activity.	A	A	A	N/O	N/O	N/O
14	Demonstrate the ability to activate the prompt notification siren system in coordination with State instructions.	I	A	A	N/O	A	N/O
22	Demonstrate the ability, based on predetermined criteria, to make the decision whether to issue KI to emergency workers.			N/O	N/O	A	N/O
1	Demonstrate the ability to mobilize staff and activate county PIO functions at the county EOC in a timely manner.	I		N/O	N/O	I	N/O

TABLE 4.6 (Cont'd)

Core Objective[a]	Exercise Objective[b]	Exercise 3/3/82	Exercise 3/9/83	Exercise 11/28/84	Remedial Exercise 4/10/85	Exercise 6/4/86	Remedial Exercise 11/10-12/3/86
2	Demonstrate the ability to maintain staffing of the PIO personnel in the county EOC on a 24-hour basis (through rosters or actual shift change).			N/O	N/O	A	N/O
26	Demonstrate the ability to share information with other agencies at the county EOC prior to its release.	A	A	N/O	N/O	A	N/O
27	Demonstrate the ability to establish and operate rumor control in a coordinated manner.	I	A	N/O	N/O	N/O	N/O
14,15	Demonstrate the ability to prepare and implement EBS in a timely manner (i.e., within 15 minutes after command and control decision for protective action recommendations).	N/O	N/O	N/O	N/O	A	N/O
1	Demonstrate the ability to mobilize staff and activate county functions at the Joint News Center in a timely manner.	I		A	A	N/O	N/O
2	Demonstrate the ability to maintain staffing of county functions in the Joint News Center on a 24-hour basis (through rosters or actual shift change).			A	A	A	N/O
25	Demonstrate the ability to brief the media in a clear, accurate, and timely manner.	A	I	A	A	A	N/O
26	Demonstrate the ability to share information with other agencies at the Joint News Center prior to its release.	A	A	A	A	A	N/O

TABLE 4.6 (Cont'd)

Core Objective[a]	Exercise Objective[b]	Exercise 3/3/82	Exercise 3/9/83	Exercise 11/28/84	Remedial Exercise 4/10/85	Exercise 6/4/86	Remedial Exercise 11/10-12/3/86
27	Demonstrate the ability to establish and operate rumor control in a coordinated manner.	I	A	A	N/O	N/O	N/O
14,15	Demonstrate the ability to prepare and implement EBS in a timely manner (i.e., within 15 minutes after command and control decision for protective action recommendations).	N/O	N/O	I	A	N/O	N/O
4	Demonstrate that the Joint News Center has adequate space, equipment, and supplies to support emergency operations.	N/O	N/O	N/O	N/O	N/O	N/O
21	Demonstrate the ability to continuously monitor and control emergency worker exposure including proper use of personnel dosimetry.	I	A	I	N/O	I	N/O
6	Demonstrate the ability to mobilize and deploy field monitoring teams in a timely manner.	I	A	A	N/O	A	N/O
7	Demonstrate appropriate equipment and procedure for determining ambient radiation levels.	I		A	N/O	A	N/O
8	Demonstrate appropriate equipment and procedures for measurement of airborne radioiodine concentrations as low as 0.1 picocurries/cc in the presence of noble gases.	N/O	N/O	A	N/O	A	N/O
9	Demonstrate appropriate equipment and procedures for the collection and transport of samples of soil, vegetation, snow, water or milk, etc.	N/O	N/C	N/O	N/O	N/O	N/O
14	[redacted]onstrate the ability to provide backup [redacted]ic alerting procedures, if necessary, in [redacted] event of partial siren system failure.	I	[redacted]	I	N/O	A	N/O

TABLE 4.6 (Cont'd)

Core Objective[a]	Exercise Objective[b]	Exercise 3/3/82	Exercise 3/9/83	Exercise 11/28/84	Remedial Exercise 4/10/85	Exercise 6/4/86	Remedial Exercise 11/10-12/3/86
15	Demonstrate that the permanent population has received information on how they will be notified and what their actions should be in the event of a radiological emergency and that this information is updated on an annual basis.	I	I	N/O	N/O	I	N/O
15	Demonstrate that information on emergency actions has been provided to transient populations.	I	I	N/O	N/O	I	N/O
18	Demonstrate that access control points can be established in a timely manner.	A		A	N/O		N/O
23	Demonstrate the ability to supply and administer KI, once the decision has been made to do so.		A	I	N/O	I	N/O
21	Demonstrate that emergency workers understand who can authorize excess exposure under the PAGs.			I	N/O	N/O	N/O
30	Demonstrate adequate equipment and procedures for decontamination of emergency workers, equipment and vehicles including adequate provisions for handling contaminated waste.		A	A	N/O	N/O	N/O
16	Demonstrate a sample of resources necessary to implement an orderly evacuation of all or part of the 10-mile EPZ.	A	I	I	N/O	I	N/O
17	Demonstrate a sample of resources necessary to deal with impediments to evacuation, such as inclement weather or traffic obstructions.			N/O	N/O	A	N/O

TABLE 4.6 (Cont'd)

Core Objective[a]	Exercise Objective[b]	Exercise 3/3/82	Exercise 3/9/83	Exercise 11/28/84	Remedial Exercise 4/10/85	Exercise 6/4/86	Remedial Exercise 11/10-12/3/86
18	Demonstrate a sample of resources necessary to control access to an evacuated area.	A		A	N/O	A	N/O
19	Demonstrate a sample of resources necessary to effect an orderly evacuation of the noninstitutionalized mobility-impaired individuals within the 10-mile EPZ.		A	A	N/O	N/O	N/O
20	Demonstrate a sample of resources necessary to effect an orderly evacuation of schools within the 10-mile EPZ.	A	A	I	N/O	I	N/O
20	Demonstrate a sample of resources necessary to effect an early dismissal of schools within the 10-mile EPZ.	N/O	A	I	N/O	N/O	N/O
20	Demonstrate that the appropriate school officials are knowledgable of the plan, procedures and response options, and can demonstrate their ability to coordinate necessary activities to implement these protective action responses	N/O	N/O	N/O	N/O	N/O	A
1	Demonstrate the ability to mobilize staff and activate reception/congregate care center in a timely manner.	A	A	A	N/O	A	N/O
2	Demonstrate the ability to maintain staffing at the reception center by shift change or roster and the congregate care center by shift change or roster for 24-hour operation.	A		A	N/O	I	N/O
28	Demonstrate the adequacy of procedures for registration and radiological monitoring of evacuees.	I	A	A	N/O	I	N/O

TABLE 4.6 (Cont'd)

Core Objective[a]	Exercise Objective[b]	Exercise 3/3/82	Exercise 3/9/83	Exercise 11/28/84	Remedial Exercise 4/10/85	Exercise 6/4/86	Remedial Exercise 11/10-12/3/86
29	Demonstrate the adequacy of facilities for mass care of evacuees.	A	A	N/O	N/O	N/O	N/O
31	Demonstrate adequacy for ambulance facilities and procedures for handling injured and contaminated individuals. (Medical drill involves an on-site/off-site injury.)	N/O	A	N/O	N/O	N/O	N/O
32	Demonstrate adequacy of hospital facilities and procedures for handling injured and contaminated individuals. (Medical drill involves an on-site/off-site injury.)	N/O	A	N/O	N/O	N/O	N/O
36	Demonstrate the ability to implement appropriate measures for controlled reentry and recovery when directed to do so by the State.	N/O	N/C	N/O	N/O	N/O	N/O

[a]FEMA Guidance Memorandum 17, Revision 1, Feb. 16, 1984.

[b]
A: Adequately Demonstrated
I: Inadequately Demonstrated
N/O: Not an Objective
N/E: Not Evaluated
N/C: Not Credited - Any evaluations prior to August 5, 1983 were not based on current FEMA guidance.

TABLE 4.7 INDIAN POINT NUCLEAR POWER STATION -- STATUS OF OBJECTIVES
July 7, 1987
ORANGE COUNTY

Core Objective[a]	Exercise Objective[b]	Exercise 3/3/82	Exercise 3/9/83	Exercise 11/28/84	Remedial Exercise 4/10/85	Exercise 6/4/86	Remedial Exercise 11/10-12/3/86
5	Demonstrate the ability to receive initial and followup emergency notifications.		A	A	A	A	N/O
1	Demonstrate the ability to mobilize staff and activate the EOC in a timely manner.	A	A	A	A	A	N/O
2	Demonstrate the ability to maintain staffing in the EOC on a 24-hour basis (through rosters or actual shift change).	I	A	A	N/O	A	N/O
4	Demonstrate that the county EOC has adequate space, equipment, and supplies to support emergency operations.	A	A	A	N/O	N/O	N/O
5	Demonstrate that the State and counties can establish appropriate communication links, both primary and backup systems.	I		A	A	A	N/O
4	Demonstrate that the county EOC had adequate access control and that security can be maintained.	I	A	A	N/O	N/O	N/O
5	Demonstrate that messages are transmitted in an accurate and timely manner, messages are properly logged, that status boards are accurately maintained and updated, that appropriate briefings are held, and that incoming personnel are briefed.	A		A	N/O	A	N/O
3	Demonstrate that the appropriate official is in charge and in control of an overall coordinated response.	A	A	A	A	A	N/O

TABLE 4.7 (Cont'd)

Core Objective[a]	Exercise Objective[b]	Exercise 3/3/82	Exercise 3/9/83	Exercise 11/28/84	Remedial Exercise 4/10/85	Exercise 6/4/86	Remedial Exercise 11/10-12/3/86
3	Demonstrate the ability of the designated official to determine the need for and ability to obtain State assistance.	A	A	A	A	N/A	N/O
5	Demonstrate the ability to communicate with all appropriate locations, organizations, and field personnel.	I	A	A	N/O	A	N/O
11	Demonstrate the ability to project radiation dosage to the public via plume exposure, based on plant data and field measurements, and to determine appropriate protective measures, based on PAGs.	I		I	N/O	I	N/O
12	Demonstrate the ability to project radiation dosage to the public via ingestion pathway exposure, based on plant and field data, and to determine appropriate protective measures, based on PAGS and other relevant factors.	N/O	N/C	N/O	N/O	N/O	N/O
13	Demonstrate the ability to implement protective measures for ingestion pathways hazards if warranted.	N/O	N/C	N/O	N/O	N/O	N/O
22	Demonstrate the ability to make the decision, based on predetermined criteria, whether to issue KI to emergency workers.			N/O	N/O	A	N/O
26	Demonstrate the ability to provide advance coordination of public alerting and instructional messages with the State and other counties.	A	A	A	A	N/E	N/O
16	Demonstrate the organizational ability to manage an orderly evacuation of all or part of the 10-mile EPZ.	A	A	A	N/O	I	N/O

TABLE 4.7 (Cont'd)

Core Objective[a]	Exercise Objective[b]	Exercise 3/3/82	Exercise 3/9/83	Exercise 11/28/84	Remedial Exercise 4/10/85	Exercise 6/4/86	Remedial Exercise 11/10-12/3/86
17	Demonstrate the organizational ability to deal with impediments to evacuation, such as inclement weather or traffic obstructions.			A	N/O	N/O	N/O
20	Demonstrate the organizational ability necessary to effect an early dismissal of schools within the 10-mile EPZ.	N/O	N/O	A	N/O	A	N/O
18	Demonstrate the organizational ability necessary to control access to an evacuated area.	A		N/A		A	N/O
20	Demonstrate the organizational ability necessary to effect an orderly evacuation of schools within the 10-mile EPZ. If this protective action is not recommended by the decision makers, e.g., schools were dismissed early, a free play controllers message may be inserted to demonstrate this activity.	N/O		N/O	N/O	N/O	N/O
14	Demonstrate the ability to activate the prompt notification siren system in coordination with State instructions.	I		A	N/O	A	N/O
1	Demonstrate the ability to mobilize staff and activate county PIO function at the county EOC in a timely manner.	N/O	N/O	N/O	N/O	A	N/O
2	Demonstrate the ability to maintain staffing of PIO personnel in the county EOC on a 24-hour basis (through rosters or actual shift change).	N/O	N/O	N/O	N/O	A	N/O

TABLE 4.7 (Cont'd)

Core Objective[a]	Exercise Objective[b]	Exercise 3/3/82	Exercise 3/9/83	Exercise 11/28/84	Remedial Exercise 4/10/85	Exercise 6/4/86	Remedial Exercise 11/10-12/3/86
26	Demonstrate the ability to share information with other agencies at the county EOC prior to its release.	N/O	N/O	N/O	N/O	A	N/O
27	Demonstrate the ability to establish and operate rumor control in a coordinated manner.	N/O	N/O	N/O	N/O	N/O	N/O
14,15	Demonstrate the ability to prepare and implement EBS in a timely manner (i.e., within 15 minutes after command and control decision for protective action recommendations).	N/O	N/O	N/O	N/O	I	N/O
1	Demonstrate the ability to mobilize staff and activate county functions at the Joint News Center in a timely manner.	A		A	A	N/O	N/O
2	Demonstrate the ability to maintain staffing of county functions in the Joint News Center on a 24-hour basis (through rosters or actual shift change).	N/O		A	A	I	N/O
25	Demonstrate the ability to brief the media in a clear accurate, and timely manner.	I		I	A	A	N/O
26	Demonstrate the ability to share information with other agencies at the Joint News Center prior to its release.	A				A	N/O
27	Demonstrate the ability to establish and operate rumor control in a coordinated manner.	N/O		A	N/O	N/O	N/O

TABLE 4.7 (Cont'd)

Core Objective[a]	Exercise Objective[b]	Exercise 3/3/82	Exercise 3/9/83	Exercise 11/28/84	Remedial Exercise 4/10/85	Exercise 6/4/86	Remedial Exercise 11/10-12/3/86
14,15	Demonstrate the ability to prepare and implement EBS in a timely manner (i.e., within 15 minutes after command and control decision for protective action recommendations).	N/O	N/O	I	A	A	N/O
21	Demonstrate the ability to continuously monitor and control emergency worker exposure including proper use of personnel dosimetry.	I		I	N/O	I	N/O
6	Demonstrate the ability to mobilize and deploy field monitoring teams in a timely manner.	A		A	N/O	A	N/O
7	Demonstrate appropriate equipment and procedure for determining ambient radiation levels.	I		A	N/O	I	A
8	Demonstrate appropriate equipment and procedures for measurement of airborne radioiodine concentrations as low as 0.1 picocurries/cc in the presence of noble gases.	I		A	N/O	I	A
9	Demonstrate appropriate equipment and procedures for the collection and transport of samples of soil, vegetation, snow, water or milk, etc.	N/O	N/C	N/O	N/O	N/O	N/O
14	Demonstrate the ability to provide backup public alerting procedures, if necessary, in the event of partial siren system failure.	I		A	N/O	A	N/O

TABLE 4.7 (Cont'd)

Core Objective[a]	Exercise Objective[b]	Exercise 3/3/82	Exercise 3/9/83	Exercise 11/28/84	Remedial Exercise 4/10/85	Exercise 6/4/86	Remedial Exercise 11/10-12/3/86
15	Demonstrate that the permanent population has received information on how they will be notified and what their actions should be in the event of a radiological emergency and that this information is updated on an annual basis.	I		N/O	N/O	A	N/O
15	Demonstrate that information on emergency actions has been provided to transient populations.	I		N/O	N/O	I	N/O
18	Demonstrate that access control points can be established in a timely manner.	I		A	N/O	N/O	N/O
23	Demonstrate the ability to supply and administer KI, once the decision has been made to do so.	A	A	I	N/O	A	N/O
21	Demonstrate that emergency workers understand who can authorize excess exposure under the PAGs.			I			
30	Demonstrate adequate equipment and procedures for decontamination of emergency workers, equipment and vehicles including adequate provisions for handling contaminated waste.	A	I	A	N/O	I	A
16	Demonstrate a sample of resources necessary to implement an orderly evacuation of all or part of the 10-mile EPZ.	A	A	A	N/O	A	N/O
17	Demonstrate a sample of resources necessary to deal with impediments to evacuation, such as inclement weather or traffic obstructions.			N/O	N/O	N/O	N/O

TABLE 4.7 (Cont'd)

Core Objective[a]	Exercise Objective[b]	Exercise 3/3/82	Exercise 3/9/83	Exercise 11/28/84	Remedial Exercise 4/10/85	Exercise 6/4/86	Remedial Exercise 11/10-12/3/86
18	Demonstrate a sample of resources necessary to control access to an evacuated area.	A		N/O	N/O	A	N/O
19	Demonstrate a sample of resources necessary to effect an orderly evacuation of the noninstitutionalized mobility-impaired individuals within the 10-mile EPZ.			N/O	N/O	I	N/O
20	Demonstrate a sample of resources necessary to effect an orderly evacuation of schools within the 10-mile EPZ.	N/O		N/O	N/O	A	N/O
20	Demonstrate a sample of resources necessary to effect an early dismissal of schools within the 10-mile EPZ.	N/O		N/O	N/O	N/O	N/O
20	Demonstrate that the appropriate school officials are knowledgable of the plan, procedures, and response options, and can demonstrate their ability to coordinate necessary activities to implement these protective action responses	N/O	N/O	N/O	N/O	N/O	A
1	Demonstrate the ability to mobilize staff and activate reception/congregate care center in a timely manner.	A		A	N/O	I	N/O
2	Demonstrate the ability to maintain staffing at the reception center by shift change or roster and the congregate care center by shift change or roster for 24-hour operation.	A	A	A	N/O	I	N/O
28	Demonstrate the adequacy of procedures for registration and radiological monitoring of [redacted]ees.	A	A	I	N/O	I	A

TABLE 4.7 (Cont'd)

Core Objective[a]	Exercise Objective[b]	Exercise 3/3/82	Exercise 3/9/83	Exercise 11/28/84	Remedial Exercise 4/10/85	Exercise 6/4/86	Remedial Exercise 11/10-12/3/86
29	Demonstrate the adequacy of facilities for mass care of evacuees.	A	I	A	N/O	A	N/O
31	Demonstrate adequacy for ambulance facilities and procedures for handling injured and contaminated individuals. (Medical drill involves an on-site/off-site injury.)	A		N/O	N/O	A	N/O
32	Demonstrate adequacy of hospital facilities and procedures for handling injured and contaminated individuals. (Medical drill involves an on-site/off-site injury.)	A		N/O	N/O	I	N/O
36	Demonstrate the ability to implement appropriate measures for controlled reentry and recovery when directed to do so by the State.	I		N/O	N/O	N/O	N/O

[a]FEMA Guidance Memorandum 17, Revision 1, Feb. 16, 1984.

[b] A: Adequately Demonstrated
I: Inadequately Demonstrated
N/O: Not an Objective
N/E: Not Evaluated
N/C: Not Credited - Any evaluation prior to August 5, 1983 not based on current FEMA guidance.

TABLE 4.8 INDIAN POINT NUCLEAR POWER STATION -- STATUS OF OBJECTIVES
July 7, 1987
PUTNAM COUNTY

Core Objective[a]	Exercise Objective[b]	Exercise 3/3/82	Exercise 3/9/83	Exercise 11/28/84	Remedial Exercise 4/10/85	Exercise 6/4/86	Remedial Exercise 11/10-12/3/86
5	Demonstrate the ability to receive initial and followup emergency notifications.	A	A	A	A	A	N/O
1	Demonstrate the ability to mobilize staff and activate the EOC in a timely manner.	A	A	A	N/O	A	N/O
2	Demonstrate the ability to maintain staffing in the EOC on a 24-hour basis (through rosters or actual shift change).	A	A	A	N/O	I	N/O
4	Demonstrate that the county EOC has adequate space, equipment, and supplies to support emergency operations.	I	A	A	N/O	N/O	N/O
5	Demonstrate that the State and counties can establish appropriate communication links, both primary and backup systems.	A	A	I	A	I	N/O
4	Demonstrate that the county EOC has adequate access control and that security can be maintained.	A	A	A	N/O	N/O	N/O
5	Demonstrate that messages are transmitted in an accurate and timely manner, messages are properly logged, that status boards are accurately maintained and updated, that appropriate briefings are held, and that incoming personnel are briefed.	A	I	I	N/O	I	N/O
3	Demonstrate that the appropriate official is in charge and in control of an overall coordinated response.	A	A	A	A	A	N/O

TABLE 4.8 (Cont'd)

Core Objective[a]	Exercise Objective[b]	Exercise 3/3/82	Exercise 3/9/83	Exercise 11/28/84	Remedial Exercise 4/10/85	Exercise 6/4/86	Remedial Exercise 11/10-12/3/86
3	Demonstrate the ability of the designated official to determine the need for and ability to obtain State assistance.	A	A	A	A	A	N/O
5	Demonstrate the ability to communicate with all appropriate locations, organizations, and field personnel.	A		A	N/O	A	N/O
11	Demonstrate the ability to project radiation dosage to the public via plume exposure, based on plant data and field measurements, and to determine appropriate protective measures, based on PACs.	A		A	N/O	A	N/O
12	Demonstrate the ability to project radiation dosage to the public via ingestion pathway exposure, based on plant and field data, and to determine appropriate protective measures, based on PACS and other relevant factors.	N/O	N/C	N/O	N/O	N/O	N/O
13	Demonstrate the ability to implement protective measures for ingestion pathways hazards if warranted.	N/O	N/C	N/O	N/O	N/O	N/O
22	Demonstrate the ability to make the decision, based on predetermined criteria, whether to issue KI to emergency workers.			N/O	N/O	I	N/O
26	Demonstrate the ability to provide advance coordination of public alerting and instructional messages with the State and other counties.	I	A	A	A	A	N/O
16	Demonstrate the organizational ability to manage an orderly evacuation of all or part of the 10-mile EPZ.	A		N/O	N/O	A	N/O

TABLE 4.8 (Cont'd)

Core Objective[a]	Exercise Objective[b]	Exercise 3/3/82	Exercise 3/9/83	Exercise 11/28/84	Remedial Exercise 4/10/85	Exercise 6/4/86	Remedial Exercise 11/10-12/3/86
17	Demonstrate the organizational ability to deal with impediments to evacuation, such as inclement weather or traffic obstructions.	A		A	N/O	I	N/O
20	Demonstrate the organizational ability necessary to effect an early dismissal of schools within the 10-mile EPZ.	N/O	N/O	A	N/O	A	N/O
18	Demonstrate the organizational ability necessary to control access to an evacuated area.	A	N/O	A	N/O	A	N/O
20	Demonstrate the organizational ability necessary to effect an orderly evacuation of schools within the 10-mile EPZ. If this protective action is not recommended by the decision makers, e.g., schools were dismissed early, a free play controllers message may be inserted to demonstrate this activity.	N/O	N/O	N/O	N/O	N/O	N/O
14	Demonstrate the ability to activate the prompt notification siren system in coordination with State instructions.	I	A	A	N/O	A	N/O
1	Demonstrate the ability to mobilize staff and activate county PIO function at the county EOC in a timely manner.	N/O	N/O	N/O	N/O	A	N/O
2	Demonstrate the ability to maintain staffing of PIO personnel in the county EOC on a 24-hour basis (through rosters or actual shift change).	N/O	N/O	N/O	N/O	I	N/O

TABLE 4.8 (Cont'd)

Core Objective[a]	Exercise Objective[b]	Exercise 3/3/82	Exercise 3/9/83	Exercise 11/28/84	Remedial Exercise 4/10/85	Exercise 6/4/86	Remedial Exercise 11/10-12/3/86
26	Demonstrate the ability to share information with other agencies at the county EOC prior to its release.	N/O	N/O	N/O	N/O	A	N/O
27	Demonstrate the ability to establish and operate rumor control in a coordinated manner.	N/O	N/O	N/O	N/O	N/O	N/O
14,15	Demonstrate the ability to prepare and implement EBS in a timely manner (i.e., within 15 minutes after command and control decision for protective action recommendations).	N/O	N/O	N/O	N/O	A	N/O
1	Demonstrate the ability to mobilize staff and activate county functions at the Joint News Center in a timely manner.	A		A	A	N/O	N/O
2	Demonstrate the ability to maintain staffing of county functions in the Joint News Center on a 24-hour basis (through rosters or actual shift change).	N/O		A	N/O	A	N/O
25	Demonstrate the ability to brief the media in a clear, accurate, and timely manner.	I		I	A	A	N/O
26	Demonstrate the ability to share information with other agencies at the Joint News Center prior to its release.	A		A	A	A	N/O
27	Demonstrate the ability to establish and operate rumor control in a coordinated manner.	I		A	N/O	N/O	N/O

TABLE 4.8 (Cont'd)

Core Objective[a]	Exercise Objective[b]	Exercise 3/3/82	Exercise 3/9/83	Exercise 11/28/84	Remedial Exercise 4/10/85	Exercise 6/4/86	Remedial Exercise 11/10-12/3/86
14,15	Demonstrate the ability to prepare and implement EBS in a timely manner (i.e., within 15 minutes after command and control decision for protective action recommendations).	N/O		I	A	N/O	N/O
4	Demonstrate that the Joint News Center has adequate space, equipment, and supplies to support emergency operations.	N/O	N/O	N/O	N/O	N/O	N/O
21	Demonstrate the ability to continuously monitor and control emergency worker exposure including proper use of personnel dosimetry.	A	I	I	N/O	I	N/O
6	Demonstrate the ability to mobilize and deploy field monitoring teams in a timely manner.	A	A	A	N/O	A	N/O
7	Demonstrate appropriate equipment and procedure for determining ambient radiation levels.	I	A	A	N/O	I	N/O
21	Demonstrate that emergency workers understand who can authorize excess exposure under the Protective Action Guidelines.		A	I	N/O	N/O	N/O
8	Demonstrate appropriate equipment and procedures for measurement of airborne radioiodine concentrations as low as 0.1 picocurries/cc in the presence of noble gases.	N/O	N/O	A	N/O	A	N/O
9	Demonstrate appropriate equipment and procedures for the collection and transport of samples of soil, vegetation, snow, water or milk, etc.	N/O	N/C	N/O	N/O	N/O	N/O

TABLE 4.8 (Cont'd)

Core Objective[a]	Exercise Objective[b]	Exercise 3/3/82	Exercise 3/9/83	Exercise 11/28/84	Remedial Exercise 4/10/85	Exercise 6/4/86	Remedial Exercise 11/10-12/3/86
14	Demonstrate the ability to provide backup public alerting procedures, if necessary, in the event of partial siren system failure.	A	N/O	A	N/O	A	N/O
15	Demonstrate that the permanent population has received information on how they will be notified and what their actions should be in the event of a radiological emergency and that this information is updated on an annual basis.	I	A	N/O	N/O	I	N/O
15	Demonstrate that information on emergency actions has been provided to transient populations.	I	A	N/O	N/O	A	N/O
18	Demonstrate that access control points can be established in a timely manner.	N/O		A	N/O		N/O
23	Demonstrate the ability to supply and administer KI, once the decision has been made to do so.	N/O	A	I	N/O	I	N/O
30	Demonstrate adequate equipment and procedures for decontamination of emergency workers, equipment and vehicles including adequate provisions for handling contaminated waste.	I	A	A	N/O	N/O	N/O
16	Demonstrate a sample of resources necessary to implement an orderly evacuation of all or part of the 10-mile EPZ.	A		I	N/O	I	N/O
17	Demonstrate a sample of resources necessary to deal with impediments to evacuation, such as inclement weather or traffic obstructions.	N/O	A	N/O	N/O	A	N/O

TABLE 4.8 (Cont'd)

Core Objective[a]	Exercise Objective[b]	Exercise 3/3/82	Exercise 3/9/83	Exercise 11/28/84	Remedial Exercise 4/10/85	Exercise 6/4/86	Remedial Exercise 11/10-12/3/86
18	Demonstrate a sample of resources necessary to control access to an evacuated area.	N/O	A	N/O	N/O	A	N/O
19	Demonstrate a sample of resources necessary to effect an orderly evacuation of the noninstitutionalized mobility-impaired individuals within the 10-mile EPZ.	N/O		N/O	N/O	I	N/O
20	Demonstrate a sample of resources necessary to effect an orderly evacuation of schools within the 10-mile EPZ.	A		N/O	N/O	N/O	N/O
20	Demonstrate a sample of resources necessary to effect an early dismissal of schools within the 10-mile EPZ.	A		N/O	N/O	N/O	N/O
1	Demonstrate the ability to mobilize staff and activate reception/congregate care center in a timely manner.	A	A	A	N/O	N/O	N/O
2	Demonstrate the ability to maintain staffing at the reception center by shift change or roster and the congregate care center by shift change or roster for 24-hour operation.		A	A	N/O	N/O	N/O
28	Demonstrate the adequacy of procedures for registration and radiological monitoring of evacuees.	A		A	N/O	N/O	N/O
29	Demonstrate the adequacy of facilities for mass care of evacuees.	A		A	N/O	N/O	N/O
31	Demonstrate adequacy for ambulance facilities and procedures for handling injured and contaminated individuals. (Medical drill involves on-site/off-site injury.)	N/O		N/O	N/O	I	N/O

TABLE 4.8 (Cont'd)

Core Objective[a]	Exercise Objective[b]	Exercise 3/3/82	Exercise 3/9/83	Exercise 11/28/84	Remedial Exercise 4/10/85	Exercise 6/4/86	Remedial Exercise 11/10-12/3/86
32	Demonstrate adequacy of hospital facilities and procedures for handling injured and contaminated individuals. (Medical drill involves an on-site/off-site injury.)			N/O	N/O	I	N/O
36	Demonstrate the ability to implement appropriate measures for controlled reentry and recovery when directed to do so by the State.	N/O		N/O	N/O	N/O	N/O

[a]FEMA Guidance Memorandum 17, Revision 1, Feb. 16, 1984.

[b]
A: Adequately Demonstrated
I: Inadequately Demonstrated
N/O: Not an Objective
N/E: Not Evaluated
N/C: Not Credited - Any evaluations made prior to August 5, 1983 not based on current FEMA guidance.

TABLE 4.9 INDIAN POINT NUCLEAR POWER STATION -- STATUS OF OBJECTIVES
July 7, 1987
DUTCHESS COUNTY

Core Objective[a]	Exercise Objective[b]	Exercise 3/3/82	Exercise 3/9/83	Exercise 11/28/84	Remedial Exercise 4/10/85	Exercise 6/4/86	Remedial Exercise 11/10-12/3/86
5	Demonstrate the ability to communicate with all appropriate locations, organizations, and field personnel.	-	A	A	N/O	A	N/O
5	Demonstrate the ability to communicate from the Rockland EOC to the Bergen EOC					I	A
1	Demonstrate the ability to mobilize staff and activate the Dutchess County EOC in a timely manner.	A	N/E	A	N/O	A	N/O
3	Demonstrate that the designated official is in charge and in control of an overall coordinated response.	A	A	A	N/O	A	N/O
2	Demonstrate through rosters the ability to maintain appropriate staffing in the EOC on a 24-hour basis.	-	N/O	A	N/O	N/O	N/O
4	Demonstrate that the county EOC has adequate space, equipment, and supplies to support emergency operations.	A	A	A	N/O	N/O	N/O
5	Demonstrate that the appropriate communication links can be established.	-	A	A	N/O	N/O	N/O
5	Demonstrate that messages are transmitted in an accurate and timely manner, messages are properly logged, status boards are accurately maintained and updated, appropriate briefings are held, and incoming personnel are briefed.	-	A	A	N/O	N/O	N/O

TABLE 4.9 (Cont'd)

Core Objective[a]	Exercise Objective[b]	Exercise 3/3/82	Exercise 3/9/83	Exercise 11/28/84	Remedial Exercise 4/10/85	Exercise 6/4/86	Remedial Exercise 11/10-12/3/86
1	Demonstrate the ability to mobilize staff and activate reception/congregate care center in a timely manner.	-	-	A	N/O	A	N/O
2	Demonstrate the ability to maintain staffing at the reception center by shift change and the congregate care center by shift change, for 24-hour operation.	-	-	A	N/O	I	N/O
28	Demonstrate the adequacy of procedures for registration and radiological monitoring of evacuees.	-	-	A	N/O	A	N/O
29	Demonstrate the adequacy of facilities for mass care of evacuees.	-	-	A	N/O	N/O	N/O

[a]FEMA Guidance Memorandum 17, Revision 1, Feb. 16, 1984.

[b] A: Adequately Demonstrated
I: Inadequately Demonstrated
N/O: Not an Objective
N/E: Not Evaluated

TABLE 4.10 INDIAN POINT NUCLEAR POWER STATION -- STATUS OF OBJECTIVES
July 7, 1987
BERGEN COUNTY

Core Objective[a]	Exercise Objective[b]	Exercise 3/3/82	Exercise 3/9/83	Exercise 11/28/84	Remedial Exercise 4/10/85	Exercise 6/4/86	Remedial Exercise 11/10-12/3/86
5	Demonstrate the ability to communicate with all appropriate locations, organizations, and field personnel.	N/A	I	A	N/O	I	N/O
1	Demonstrate the ability to mobilize staff and activate the Bergen County EOC in a timely manner.	N/A	A	A	N/O	I	N/O
2	Demonstrate the ability to mobilize staff and activate the Bergen County EOC in a timely manner.	N/A	A	A	N/O	A	N/O
3	Demonstrate that the designated official is in charge and in control of an overall coordinated response.	N/A	I	A	N/O	I	N/O
4	Demonstrate that the county EOC has adequate space, equipment, and supplies to support emergency operations.	N/A	A	A	N/O	N/O	N/O
5	Demonstrate that the appropriate communication links can be established.	N/A	I	A	N/O	N/O	N/O
5	Demonstrate that messages are transmitted in an accurate and timely manner, messages are properly logged, status boards are accurately maintained and updated, appropriate briefings are held, and incoming personnel are briefed.	N/A	I	A	N/O	N/O	N/O
1	Demonstrate the ability to mobilize staff and activate congregate care center in a timely manner.	N/A	A	N/E	N/O	A	N/O

TABLE 4.10 (Cont'd)

Core Objective[a]	Exercise Objective[b]	Exercise 3/3/82	Exercise 3/9/83	Exercise 11/28/84	Remedial Exercise 4/10/85	Exercise 6/4/86	Remedial Exercise 11/10-12/3/86
2	Demonstrate the ability to maintain staffing at the congregate care center by presentation of a roster, for 24-hour operation.	N/A	A	A	N/O	I	N/O
28	Demonstrate the adequacy of procedures for registration and radiological monitoring of evacuees.	N/A	A	A	N/O	N/O	N/O
29	Demonstrate the adequacy of facilities for mass care of evacuees.	N/A	A	A	N/O	N/O	N/O

[a]FEMA Guidance Memorandum 17, Revision 1, Feb. 16, 1984.

[b] A: Adequately Demonstrated
I: Inadequately Demonstrated
N/O: Not an Objective
N/E: Not Evaluated

No.	Description and Recommended Corrective Action	NUREG-0654 FEMA-REP-1 Rev. 1, Reference[a]	Class[b]	Issue Identified: Exercise 3/3/82	Exercise 3/9/83	Exercise 11/28/84	Remedial Exercise 4/10/85	Exercise 6/4/86	Remedial Exercise 11/10-12/3/86	Present Status[c]
	o The Palisades Park Police should be notified at the Unusual Event ECL in accordance with the procedures.							X		I
2.	A telephone tieline between the bergen County EOC and the Rockland County EOC which was to have been installed by the licensee and functional by June 1, 1985 was not operational. The telephone tie-line between the bergen County EOC and the Rockland County EOC should be installed and made operational.	F.1.b	ARCA					X		C
3.	The Rockland County EOC staff requested plant status information via hard copy (i.e., Part III of the New York State Radiological Emergency Data Form) as called for in the Rockland County Plan. The utility informed Rockland County that this information would have to be obtained by telephone due to a backlog on the telefax equipment. Rockland County should obtain a firm commitment from the utility that hard copy of plant status data will be sent to the Rockland County EOC on a timely basis.	F.1.d F.1	ARCA					X		I
4.	The event status board in the operations room was not always updated in a timely manner. Operations room personnel should be trained to maintain and update the status board until the termination of an emergency and deactivation of the EOC is complete.	H.3 F.1	ARCA				X	X		I

No.	Description and Recommended Corrective Action	NUREG-0654 FEMA-REP-1 Rev. 1, Reference[a]	Class[b]	Issue Identified: Exercise 3/3/82	Exercise 3/9/83	Exercise 11/28/84	Remedial Exercise 4/10/85	Exercise 6/4/86	Remedial Exercise 11/10-12/3/86	Present Status[c]
5.	In several instances, information on the events status board in the operations room was inaccurate.	H.3	ARCA							
	o Operations room personnel should be trained to ensure that complete and accurate information is posted on the status board.						X	X		I
	o New or updated information should be posted on the status board as a separate entry, rather than as a modification to an existing entry.						X	X		I
6.	Although not a part of the scenario, RECS messages 7-A through 13-A indicated that conditions of foggy weather were present. Personnel in the EOC did not reflect this in their considerations of protective actions since evacuation time estimates increase significantly during adverse weather. The decision to shelter ERPA's 36, 37 and 41 was not made until 1417. By the time the EBS message was broadcast to shelter, the plume had already arrived over parts of the EPZ and some inhabitants would have been exposed. Future messages should be carefully reviewed regarding meteorological conditions. Protective action decision should be more timely, especially when recommendations are made to the county.	J.10.a				X				C

No.	Description and Recommended Corrective Action	NUREG-0654 FEMA-REP-1 Rev. 1, Reference[a]	Class[b]	Issue Identified: Exercise 3/3/82	Exercise 3/9/83	Exercise 11/28/84	Remedial Exercise 4/10/85	Exercise 6/4/86	Remedial Exercise 11/10-12/3/86	Present Status[c]
7.	The Bergen County Police representative at the Rockland County EOC was unclear on procedures to be followed, resulting in incomplete communications between the Rockland County EOC and the Bergen County EOC. Communications with Bergen County were not established until 1130. The representative simulated communications with Bergen County, rather than actually demonstrating the capability to transmit information. The representative indicated that he would call the Bergen County Police on the commercial telephone, who would then contact the Bergen County EOC.	A.2.a F.1.b	ARCA					X		C
	o The Bergen County representative at the Rockland County EOC should complete actual, rather than simulated, communications with Bergen County.				X	X		X		C
	o Communications between the Rockland County EOC and the Bergen County EOC should be direct, rather than through an intermediary.				X	X		X		C
8.	Not all agency representatives at the Rockland County EOC were familiar with the New York State emergency log form. Also, there were several periods during the exercise when the flow of information lagged among agencies. All agency	F.1				X				C

No.	Description and Recommended Corrective Action	NUREG-0654 FEMA-REP-1 Rev. 1, Reference[a]	Class[b]	Issue Identified						Present Status[c]
				Exercise 3/3/82	Exercise 3/9/83	Exercise 11/28/84	Remedial Exercise 4/10/85	Exercise 6/4/86	Remedial Exercise 11/10-12/3/86	
	representatives at the Rockland County EOC should receive additional training in procedures for the communication of internal messages and use of the emergency message log forms. A training schedule should be provided to FEMA.									
9.	Although Rockland County had the benefit of additional technical dose assessment input from the State EOC in Albany, and the state RERP representative, who was present at the County EOC, protective action decision making was delayed in Rockland County. Information flow over the executive Hotline and communication between the dose assessment functions in the State and Rockland County EOCs need to be improved. The following two recommendations relate to this deficiency:	F.1.b								
	o The County Health Commissioner should be trained to place greater emphasis on potential consequences and to be more forceful in presenting these consequences to the decision maker at the earliest possible time so that all protective action options will be available.					X				C

No.	Description and Recommended Corrective Action	NUREG-0654 FEMA-REP-1 Rev. 1, Reference[a]	Class[b]	Issue Identified: Exercise 3/3/82	Exercise 3/9/83	Exercise 11/28/84	Remedial Exercise 4/10/85	Exercise 6/4/86	Remedial Exercise 11/10-12/3/86	Present Status[c]
	o The role of the State RERP liaison should be reviewed and formalized in the County Plan, both prior to and after the Governor's declaration of State of Emergency to improve the facility with which protective action recommendations are coordinated between the State and Rockland County.					X				C
10.	A minor delay was caused on one occasion when the county and State did not agree on dose projections. While the differences were not significant, resolution of the cause for the difference results in a minor delay. Rockland County and the State should attempt to use an identical dose projection methodology and/or technical personnel should be trained to recognize ahead of time that differences are likely to occur so that they do not become concerned over minor differences.	I.8				X				C
11.	The formal school evacuation time estimates have not been submitted to the Federal Emergency Management Agency (FEMA) for review. The formal school evacuation time estimates should be submitted to FEMA for review.	J.10.1	ARCA			X		X		I

No.	Description and Recommended Corrective Action	NUREG-0654 FEMA-REP-1 Rev. 1, Reference[a]	Class[b]	Issue Identified						Present Status[c]
				Exercise 3/3/82	Exercise 3/9/83	Exercise 11/28/84	Remedial Exercise 4/10/85	Exercise 6/4/86	Remedial Exercise 11/10-12/3/86	
12.	Rockland County has not finalized and adopted a radiological emergency response plan and procedures to respond to an emergency at the Indian Point Nuclear Generating Station. Rockland County should finalize and adopt a radiological emergency response plan and procedures to respond to an emergency at Indian Point.	A.1.a			X					C
13.	State Department of Health (DOH) personnel based in Monticelli were unfamiliar with procedures for 24-hour continuous emergency response operations. State Department of Health personnel with duties in Rockland County should be given additional training in the Rockland County plan and procedures.	A.4			X					C
14.	A map showing the location of congregate care centers in Bergen County, New Jersey, was not posted in the Rockland County EOC. A map of congregate care centers in Bergen County should be posted in the Rockland County EOC.	J.10.a			X					C
15.	Rockland County officials and personnel did not participate in the indian Point exercise of March 9, 1983. Rockland County should participate fully in the next exercise of radiological emergency response plans and preparedness for the Indian Point Nuclear Power Station.	N.1.b			X					C

No.	Description and Recommended Corrective Action	NUREG-0654 FEMA-REP-1 Rev. 1, Reference[a]	Class[b]	Issue Identified						Present Status[c]
				Exercise 3/3/82	Exercise 3/9/83	Exercise 11/28/84	Remedial Exercise 4/10/85	Exercise 6/4/86	Remedial Exercise 11/10-12/3/86	
16.	Emergency staff would benefit from more familiarity with the response procedures.	A.1.b		X						C
17.	More effective management of the EOC is needed to ensure efficient operation.	A.1.d		X						C
18.	Additional consideration should be given to staffing of critical positions by backup personnel.	A.1.e		X						C
19.	There was insufficient staff available for alerting and mobilizing emergency personnel and a 24-hr capability for most functions was not demonstrated. These have not been addressed.	A.1.a		X						C
20.	The duties of the Rockland County representative at the EOF should be more clearly defined.	C.2.a		X						C
21.	More effective methods are needed for initial call-out to emergency personnel.	E.2		X						C
22.	Criteria should be developed in conjunction with the state and other counties to determine what types of information will be broadcast over EBS and what type will be issued in news releases.	E.5 E.6		X						C

No.	Description and Recommended Corrective Action	NUREG-0654 FEMA-REP-1 Rev. 1, Reference[a]	Class[b]	Issue Identified						Present Status[c]
				Exercise 3/3/82	Exercise 3/9/83	Exercise 11/28/84	Remedial Exercise 4/10/85	Exercise 6/4/86	Remedial Exercise 11/10-12/3/86	
23.	Substantial improvement is needed in equipment and procedures for external communication. The RECS line system needs to be made more reliable. Staff support is needed to relief principals from telephoning tasks.	F.1.b		X						C
24.	A procedure is needed for keeping the operations-room staff better informed. It is suggested that the operation log be updated frequently and circulated to provide a chronological record of activities.	F.1.d		X						C
25.	Rumor control methods need to be strengthened.	G.4.c		X						C
26.	Consideration should be given to allotting more space to the accident assessment room.	H.3		X						C
27.	An improved communications system is needed to support assessment activities and timely use of field data.	C.2.a		X	X					C
28.	Additional training of field monitoring teams would be beneficial to increase their familiarity with equipment and procedures. Responsibilities for field radioiodine measurements should be clearly defined.	I.8 I.9		X						C

No.	Description and Recommended Corrective Action	NUREG-0654 FEMA-REP-1 Rev. 1, Reference[a]	Class[b]	Issue Identified: Exercise 3/3/82	Exercise 3/9/83	Exercise 11/28/84	Remedial Exercise 4/10/85	Exercise 6/4/86	Remedial Exercise 11/10-12/3/86	Present Status[c]
29.	Silver zeolite filters should be used in the air sampling equipment that is used for measuring radioiodine. NOTE: Charcoal filters may be used during drills and exercises, but the silver zeolite filters must be in the instrument kits ready for use in an actual emergency.	I.9		X						C
30.	Plans and procedures for two nonpublic schools (Immaculate Conception and St. Peters) have not been developed. Rockland County officials provided evidence that school emergency planning assistance had been offered to schools within the plume EPZ. However, neither of the two nonpublic school principals could recall having been offered assistance in the review of their school's emergency preparedness plan and Rockland County had not followed up on their letter offering assistance. State and county officials should follow up with the nonpublic schools in Rockland County to insure that plans for radiological emergencies and the resources necessary to protect nonpublic school students are in place.	A.1.a-e A.2.1,b A.3,A.4	Def.					X		C

No.	Description and Recommended Corrective Action	NUREG-0654 FEMA-REP-1 Rev. 1, Reference[a]	Class[b]	Issue Identified						Present Status[c]
				Exercise 3/3/82	Exercise 3/9/83	Exercise 11/28/84	Remedial Exercise 4/10/85	Exercise 6/4/86	Remedial Exercise 11/10-12/3/86	
31.	There were seven (7) individuals trained in personnel and vehicle monitoring at the reception center, but no back-ups were available for these individuals. Additional staff should be trained to fill second shift positions for personnel and vehicle monitoring and for nursing functions at the reception center.	A.4	ARCA					X		I
32.	Staff that would be responsible for decontamination of vehicles were poorly trained. Staff that would be responsible for decontamination should be properly trained.	K.5.b	ARCA					X		I
33.	Decontamination procedures were not carefully thought out and no written instructions were available. Plans for vehicle washdown and impoundment were vague and the location selected made the proper impoundment of wash water and vehicles difficult. Suitable plans for vehicle contamination should be developed for the reception center location.	K.5.b	ARCA					X		I

TABLE 3.6 (Cont'd)

No.	Description and Recommended Corrective Action	NUREG-0654 FEMA-REP-1 Rev. 1, Reference[a]	Class[b]	Issue Identified: Exercise 3/3/82	Exercise 3/9/83	Exercise 11/28/84	Remedial Exercise 4/10/85	Exercise 6/4/86	Remedial Exercise 11/10-12/3/86	Present Status[c]
34.	Based on the time observed to monitor an evacuee and the number of monitoring personnel available to staff the reception center it is estimated that approximately 1,200 people could be processed in a 12-hour period. Staffing requirements and operational procedures should be reviewed to determine the capacity of the reception center at the Salvation Army Training Center in Suffern, New York. If necessary, additional staff should be trained to insure that all evacuees directed to this reception center could be monitored and decontaminated, if necessary, within 12 hours.	J.12	ARCA					X		C
35.	The directions to the congregate care center provided to evacuees at the reception center were incorrect. Directions to the congregate care center that are to be provided to evacuees at the reception center should be revised. These directions should be more specific and should note the expected mileage.	J.9 J.10.g	ARCA					X		I
36.	The maps provided to Peter Brega, Inc. bus company had several errors on them and required the driver to go to two (2) reception centers. Bus route maps should be reviewed and revised as necessary.	J.10.g	ARCA					X		I

No.	Description and Recommended Corrective Action	NUREG-0654 FEMA-REP-1 Rev. 1, Reference[a]	Class[b]	Issue Identified						Present Status[c]
				Exercise 3/3/82	Exercise 3/9/83	Exercise 11/28/84	Remedial Exercise 4/10/85	Exercise 6/4/86	Remedial Exercise 11/10-12/3/86	
37.	There were no maps available at the Haverstraw Transit Company to direct drivers from their assigned schools to the reception center. Maps should be provided to each driver showing the desired route to the reception center from the assigned school.	J.10.1,g	ARCA					X		I
38.	The owner of the Peter Brega, Inc. bus company expressed concern that they had no letter of agreement with Rockland County to provide emergency bus services in the event of a radiological emergency. However, after the exercise, Rockland County representatives provided a copy of the letter of agreement with this bus company to FEMA. Rockland County should verify its agreement with Peter Brega, Inc.	A.3	ARCA					X		I
39.	According to school principals, information has not been provided to parents of students at two (2) nonpublic schools (Immaculate Conception and St. Peters) for three (3) years. According to these school principals, the last information provided to either school was in a 1983 letter with instructions to parents and an emergency information brochure. State and county officials and the nonpublic schools in Rockland County must inform parents as to what actions will be taken to protect school children in the event of a radiological emergency at Indian Point.	G.1	ARCA					X		C

No.	Description and Recommended Corrective Action	NUREG-0654 FEMA-REP-1 Rev. 1, Reference[a]	Class[b]	Issue Identified: Exercise 3/3/82	Exercise 3/9/83	Exercise 11/28/84	Remedial Exercise 4/10/85	Exercise 6/4/86	Remedial Exercise 11/10-12/3/86	Present Status[c]
40.	Not all buses used for evacuation were equipped with radios. Each Rockland County transportation company with an emergency response mission should acquire equipment to permit radio communications with its vehicles and with the transit coordinator in the EOC. Bus-to-dispatcher communications continue to be a problem for some bus companies.	E.1 E.2		X	X	X		X		C
41.	The tone alert radio failed to operate at one school where school officials did not know how the unit should be set up and installed for operation. All tone alert receivers that have been issued to schools and other institutions should be checked to ensure that they are properly installed and operationally tested periodically.	E.5 E.6	ARCA				X	X		C
42.	Local police were delayed in arriving at the field location for backup route alerting of the population and initially demonstrated this activity in the wrong area. Local organizations with backup route alerting responsibilities should be familiarized with the siren area maps and trained to complete this function in a timely manner (i.e., within 45 minutes of the initial notification). Standard operating procedures are recommended.	E.6				X				C

No.	Description and Recommended Corrective Action	NUREG-0654 FEMA-REP-1 Rev. 1, Reference[a]	Class[b]	Issue Identified: Exercise 3/3/82	Exercise 3/9/83	Exercise 11/28/84	Remedial Exercise 4/10/85	Exercise 6/4/86	Remedial Exercise 11/10-12/3/86	Present Status[c]
43.	Some problems were experienced in maintaining mobile radio communications with buses due to distance from the base station, topography, electrical interference, etc. The alternate method of communication for both non-radio equipped and radio-equipped vehicles which experienced operational problems was effectively demonstrated by telephone. Communications needs for transportation companies are under review as part of the Rockland County evacuation study effort that is currently being performed by the transportation Study Planning Group (TSPG). Therefore, the communication needs for each Rockland County transportation company with an emergency response mission remains unresolved until the TSPG study is completed. The study should give specific recommendations regarding these communication needs. The completion date for this study should be provided to FEMA.	F.1.d	ARCA			X		X		I

No.	Description and Recommended Corrective Action	NUREG-0654 FEMA-REP-1 Rev. 1, Reference[a]	Class[b]	Issue Identified: Exercise 3/3/82	Exercise 3/9/83	Exercise 11/28/84	Remedial Exercise 4/10/85	Exercise 6/4/86	Remedial Exercise 11/10-12/3/86	Present Status[c]
44.	Although a RACES radio operator was available at the reception center, it was not possible to demonstrate communication capabilities at this exercise, since the reception center was set up after the EOC had been deactivated and other activities had been completed. A future exercise should include the demonstration of communications capabilities to keep reception center director(s) informed of exercise events (e.g., radiation releases, evacuation recommendations, etc.) as they occur.	F.1.d				X				C
45.	Bus drivers were not familiar with the specific location of the reception center where they were to take school evacuees. Maps should be developed showing the location(s) of reception centers to which schools are assigned. These maps should be maintained at the bus garages for distribution to drivers in the event a school evacuation becomes necessary.	J.10.a	ARCA			X		X		I
46.	Two bus evacuation routes were modified by drivers on the day of the exercise to avoid railroad crossings which potentially could cause delays. The bus evacuation route maps should be reviewed and revised with input from the drivers to ensure that the most efficient routing is used.	J.10.a	ARCA			X		X		I

No.	Description and Recommended Corrective Action	NUREG-0654 FEMA-REP-1 Rev. 1, Reference[a]	Class[b]	Issue Identified						Present Status[c]
				Exercise 3/3/82	Exercise 3/9/83	Exercise 11/28/84	Remedial Exercise 4/10/85	Exercise 6/4/86	Remedial Exercise 11/10-12/3/86	
47.	The transportation company for demonstrating the simulated evacuation of noninstitutionalized mobility-impaired persons is open only twelve (12) hours per day Monday through Friday and eight (8) hours on Saturday. The procedures for notifying all companies with responsibilities for transporting noninstitutionalized mobility-impaired individuals should be reviewed, and revised if required, to ensure that these companies can be notified and resources mobilized on a 24-hour basis.	J.10.d				X				I
48.	Not all school officials have been trained or received guidance on radiological emergency planning for schools and some officials are unaware of a distinction between the early dismissal of students to go home and the evacuation of students to a reception center. Training should be given to more than one official from each of the schools within the 10-mile EPZ to familiarize them with off-site radiological emergency planning in rockland County and the interrelationship of the Rockland County Plan within existing school emergency plans. There is a need for further evaluation of the level of preparedness of schools and staff in Rockland County.	J.10.g	ARCA			X		X		C

No.	Description and Recommended Corrective Action	NUREG-0654 FEMA-REP-1 Rev. 1, Reference[a]	Class[b]	Issue Identified: Exercise 3/3/82	Exercise 3/9/83	Exercise 11/28/84	Remedial Exercise 4/10/85	Exercise 6/4/86	Remedial Exercise 11/10-12/3/86	Present Status[c]
49.	One bus driver had difficulty following the route map provided to him, which required re-running of a portion of the route. This was due to the driver's unfamiliarity with the route and a missing street sign. All bus routes should be test-run by drivers and landmarks noted where street signs are missing.	J.10.g				X				C
50.	Not all Rockland County bus drivers at each bus company have received training in driving evacuation bus routes. All Rockland County bus drivers should be trained to be able to complete evacuation bus routes. A training schedule should be furnished to FEMA.	J.10.g				X				C
51.	Future exercises should include more extensive participation by police, sheriff, fire, and ambulance services. Training needs in these areas should be identified.	B.9		X	X					C
52.	Due to the absence of detailed evacuation plans and procedures for Rockland County in the state compensating measures plan (dated March, 1983), the capability to implement actions to protect the public could not be measured against the plan. Detailed evacuation plans and procedures should be developed and incorporated within the plans.	J.10.g			X					C

No.	Description and Recommended Corrective Action	NUREG-0654 FEMA-REP-1 Rev. 1, Reference[a]	Class[b]	Issue Identified						Present Status[c]
				Exercise 3/3/82	Exercise 3/9/83	Exercise 11/28/84	Remedial Exercise 4/10/85	Exercise 6/4/86	Remedial Exercise 11/10-12/3/86	
53.	The effectiveness of the initial public notification system needs to be tested to determine whether the siren system will be sufficient or whether a backup notification system is needed.	E.6		X						C
54.	On-the-job training would make procedures flow more smoothly at the congregate care centers.	J.12		X						C
55.	The bus dispatcher for Haverstraw Transit Company stated that only six (6) of the 95 drivers expected had received training in using dosimetry. All bus drivers who may be called upon in an emergency should be trained in the use of dosimetry.	K.3.b	ARCA					X		I
56.	The Stony Point Police officer did not have a low-range dosimeter. Appropriate low-range personnel dosimetry should be provided to personnel who staff all traffic control points.	K.3.a	ARCA					X		I
57.	The dosimetry provided to the Rockland Sheriff Deputy had not been removed from its package and had not been changed. Dosimetry provided to officers should be ready for use when issued.	K.3.b	ARCA					X		I

No.	Description and Recommended Corrective Action	NUREG-0654 FEMA-REP-1 Rev. 1, Reference[a]	Class[b]	Issue Identified						Present Status[c]
				Exercise 3/3/82	Exercise 3/9/83	Exercise 11/28/84	Remedial Exercise 4/10/85	Exercise 6/4/86	Remedial Exercise 11/10-12/3/86	
58.	The Rockland County Sheriff and Haverstraw Police Department units were generally unaware of proper dosimeter use and exposure limits. Training on dosimetry use should be provided to all police units that may be called upon to staff TCPS. This training should emphasize using the equipment and preparing it for use in the field.	K.3.b	ARCA					X		I
59.	The packet of exposure control materials issued to one bus driver was missing KI. Bus dispatchers should be trained to ensure that KI tablets are issued to all drivers before they are deployed to their field assignments.	J.10.e				X				C
60.	Rockland County Sheriffs and Haverstraw Police officers were unaware of when to use KI and who authorizes its use. Training on procedures should be provided to all police officers to insure their proper use of KI.	J.10.e	ARCA		X	X		X		I
61.	The bus dispatcher at one transportation company had difficulty using the dosimeter charger to zero dosimeters before issuing them to driver(s) and was concerned that some of the dosimeters would not stay zeroed. Also, one bus driver and one police unit that	K.3.a	ARCA		X	X		X		I

No.	Description and Recommended Corrective Action	NUREG-0654 FEMA-REP-1 Rev. 1, Reference[a]	Class[b]	Issue Identified						Present Status[c]
				Exercise 3/3/82	Exercise 3/9/83	Exercise 11/28/84	Remedial Exercise 4/10/85	Exercise 6/4/86	Remedial Exercise 11/10-12/3/86	
	staffed a traffic control point did not understand what readings on their dosimeter would mean. All emergency workers should be fully trained in radiological exposure control including the use of dosimeters.									
62.	Bus drivers and police units staffing traffic control points did not understand that they would notify their supervisor when their dosimeter reached 1R and that permission to exceed a cumulative dose of 3R would require permission from their supervisor as authorized by the County Department of Health as set forth in the Rockland County Plan. Additional training is needed in the procedure emergency workers are to follow in requesting authorization to exceed Protective Action Guidelines.	K.4	ARCA			X		X		I
63.	Haverstraw Transit Company had only nine (9) 0-5R DRDs, 24 low-range (0-200mR) DRDs, and 24 TLDs although 95 drivers were potentially to be called in an emergency. A sufficient number of appropriate dosimeters should be provided to Haverstraw Transit Company so that all drivers who may potentially be called in an emergency will be equipped with proper monitoring and exposure control.	K.3.a	ARCA	X	X			X		I

TABLE 3.6 (Cont'd)

No.	Description and Recommended Corrective Action	NUREG-0654 FEMA-REP-1 Rev. 1, Reference[a]	Class[b]	Issue Identified						Present Status[c]
				Exercise 3/3/82	Exercise 3/9/83	Exercise 11/28/84	Remedial Exercise 4/10/85	Exercise 6/4/86	Remedial Exercise 11/10-12/3/86	
64.	The tone alert radio at the Immaculate Conception School did not activate during the exercise and has never functioned during any test. Tone alert radios should be made operational.	F.1.e J.9	ARCA					X		C
65.	The annual public education brochure has not been distributed in Rockland County. Publication and distribution of the public education brochure for Rockland County should be expedited.	G.1	ARCA		X					C
66.	Of the limited number of residents of the 10-mile EPZ questioned by federal observers, only about half could recall having received the public information brochure, understood its contents, or were aware of the meaning of the sirens. Additional public education is needed so that the public will understand the locations of the areas that are to take protective actions, will know how to carry out the protective actions, and will be aware of what the sirens mean.	G.1 J.10.a	ARCA	X	X	X		X		I

No.	Description and Recommended Corrective Action	NUREG-0654 FEMA-REP-1 Rev. 1, Reference[a]	Class[b]	Issue Identified: Exercise 3/3/82	Exercise 3/9/83	Exercise 11/28/84	Remedial Exercise 4/10/85	Exercise 6/4/86	Remedial Exercise 11/10-12/3/86	Present Status[c]
67.	Of five (5) motels visited, two (2) had the emergency information brochure available for the transient population. Sufficient copies of the current emergency information brochure should be provided to all hotels and motels in the county. The ned to keep the brochures available for distribution to hotel/motel residents in an actual emergency should be stressed to the managers of these facilities.	G.2	ARCA		X			X		I
68.	The public education program should be reviewed to determine whether efforts are needed to improve its effectiveness.	G.2		X	X					C

[a]NUREG-0654, FEMA, REP-1, Rev. 1, Criteria for Preparation and Evaluation of Radiological Emergency Response Plans and Preparedness in Support of Nuclear Power Plants, Part II.

N/R: No NUREG-0654 reference.

[b]Def.: Deficiency.
ARCA: Area Requiring Corrective Action.

These classifications were added to the table beginning with the 6/4/86 exercise and are not given for problems identified only at previous exercises.

[c]C: Remedial action complete.
I: Remedial action incomplete.

TABLE 3.7 INDIAN POINT NUCLEAR POWER STATION -- SUMMARY OF DEFICIENCIES AND AREAS REQUIRING CORRECTIVE ACTION
JULY 7, 1987
ORANGE COUNTY

No.	Description and Recommended Corrective Action	NUREG-0654 FEMA-REP-1 Rev. 1, Reference[a]	Class[b]	Issue Identified						Present Status[c]
				Exercise 3/3/82	Exercise 3/9/83	Exercise 11/28/84	Remedial Exercise 4/10/85	Exercise 6/4/86	Remedial Exercise 11/10-12/3/86	
1.	The Orange county EOC sign-in procedures did not provide for the recording of arrival or departure times of the emergency staff. The Orange County EOC sign-in sheet should be revised to include arrival and departure times for staff members.	A.4 H.4	ARCA					X		I
2.	The telefax machine used to provide hard copy transmissions with the Joint News Center experienced some operational problems which caused minor delays in message transmission. The problem with the telefax system should be identified and corrected.	K.10	ARCA					X		I
3.	Does projections or calculations based on the use of data gathered by the radiological monitoring field team were not made. The use of field team data to calculate doses to the public should be demonstrated at a future exercise.	I.10	ARCA					X		I

TABLE 3.7 (Cont'd)

No.	Description and Recommended Corrective Action	NUREG-0654 FEMA-REP-1 Rev. 1, Reference[a]	Class[b]	Issue Identified: Exercise 3/3/82	Exercise 3/9/83	Exercise 11/28/84	Remedial Exercise 4/10/85	Exercise 6/4/86	Remedial Exercise 11/10-12/3/86	Present Status[c]
4.	ERPA 39 is jointly shared by both Rockland and Orange Counties. Confusion occurred with Orange County recommended sheltering in ERPA 39 and Rockland County ordered an evacuation.	J.9	ARCA							
	o The boundary of ERPA 39 should be modified so that this ERPA is exclusively in either Rockland County or in Orange County, thereby giving full jurisdiction to one county.							X		I
	o In the meantime, additional coordination between counties concerning ERPA 39 should be implemented.							X		I
5.	Activities of the field teams were not well coordinated from the EOC. The timing of field activities, recording of data and determination of iodine concentrations were not well executed. More training should be provided for the EOC dose assessment staff responsible for coordinating field monitoring teams including training in criteria for establishing priorities, interpreting air sample data, recommending appropriate protective actions based on PAGs, understanding critical scale of release rates and use of a field log and map to record data.	F.1.d				X				C

TABLE 3.7 (Cont'd)

No.	Description and Recommended Corrective Action	NUREG-0654 FEMA-REP-1 Rev. 1, Reference[a]	Class[b]	Issue Identified						Present Status[c]
				Exercise 3/3/82	Exercise 3/9/83	Exercise 11/28/84	Remedial Exercise 4/10/85	Exercise 6/4/86	Remedial Exercise 11/10-12/3/86	
6.	Some Orange County news releases were issued late and contained inaccuracies. The timeliness and accuracy of Orange County news releases should be improved.	G.4.b			X					C
7.	Provide more comprehensive training for key backup personnel.	A.4 O.4		X						C
8.	EOC workers should be familiarized with displays.	N/R		X						C
9.	Emergency workers in the EOC should be kept better informed of the information being released to the public.	E.5		X						C
10.	Criteria should be developed in conjunction with the State and other counties to determine what type of information will be aired over EBS and what type will be issued in news releases.	E.5		X						C
11.	Additional telephone lines or equivalent systems should be provided in the EOC to serve as an additional backup for dedicated phones.	F.1.b		X						C
12.	The Orange County EOC should make the executive hotline operational to facilitate the information flow between counties.	F.1.b		X						C

TABLE 3.7 (Cont'd)

No.	Description and Recommended Corrective Action	NUREG-0654 FEMA-REP-1 Rev. 1, Reference[a]	Class[b]	Issue Identified: Exercise 3/3/82	Exercise 3/9/83	Exercise 11/28/84	Remedial Exercise 4/10/85	Exercise 6/4/86	Remedial Exercise 11/10-12/3/86	Present Status[c]
13.	Provide additional training and resources for communication with field support personnel.	F.1.d		X						C
14.	The plan for internal communications and dissemination of information within the EOC should be improved to increase efficiency and coordination. Radiological field monitoring data should be transmitted directly into the accident assessment room.	F.1.d H.2		X						C
15.	The divided floor plan within the EOC requires that effective communication flow and procedures be established to ensure efficient management.	F.1.d		X						C
16.	Press briefings should be announced in advance so that PIOs can attempt.	G.4.b		X						C
17.	Procedures should be reviewed for identifying rumors and for dealing with them.	G.4.c		X						C
18.	Important recovery and reentry procedures should be effectively demonstrated to ensure capabilities and to provide training.	M.1		X						C
19.	Improvement in the exercise experience could be gained by having activities designed to thoroughly test teams with	N.1.a		X						C

No.	Description and Recommended Corrective Action	NUREG-0654 FEMA-REP-1 Rev. 1, Reference[a]	Class[b]	Issue Identified: Exercise 3/3/82	Exercise 3/9/83	Exercise 11/28/84	Remedial Exercise 4/10/85	Exercise 6/4/86	Remedial Exercise 11/10-12/3/86	Present Status[c]
	complex duties (such as field monitoring teams) while minimizing activities that are routine for other participants.									
20.	Establish a schedule for additional drills in order to develop more familiarity and efficiency with procedures and resources.	N.2		X						C
21.	The radiological field monitoring team displayed equipment and operational inadequacies in the field. The only reading which the team encountered (155 mR/hr closed window, 225 mR/hr open window) could not have been read on the equipment the team had because the capacity of the equipment was exceeded (50 mR/hr). In addition, the team neglected to turn the instrument on. Also in the field, the team turned off their survey meter for 10 minutes while sitting in a 200 mR/hr field. o Further training in the use of proper field monitoring equipment is required. o A high range detector should be available if the teams are to track the plume centerline.	I.7 I.10	Def.					X		C

TABLE 3.7 (Cont'd)

No.	Description and Recommended Corrective Action	NUREG-0654 FEMA-REP-1 Rev. 1, Reference[a]	Class[b]	Issue Identified						Present Status[c]
				Exercise 3/3/82	Exercise 3/9/83	Exercise 11/28/84	Remedial Exercise 4/10/85	Exercise 6/4/86	Remedial Exercise 11/10-12/3/86	
22.	The survey procedures used by the field monitoring team differed from those provided to the evaluation team. In addition, procedures were missing which should be part of the teams standard operating procedures. These include: sample triangulation, recording of beginning and ending times and flow rates for air samples, taking open and closed window readings, taking measurements at 3" and at chest level, and taking measurements while driving. The Orange County standard operating procedures for field monitoring should be consistent with procedures in the plan and should include all pertinent monitoring processes.	I.7	ARCA					X		C
23.	Field teams should demonstrate familiarity with instruments having response ranges that might be needed during an actual event.	I.8			X					C
24.	Silver zeolite filters should be used in the air sampling equipment that is used for measuring radioiodine. NOTE: Charcoal filters may be used during drills and exercises but the silver zeolite filters must be in the instrument kits ready for use in an actual emergency.	I.9			X					C

TABLE 3.7 (Cont'd)

No.	Description and Recommended Corrective Action	NUREG-0654 FEMA-REP-1 Rev. 1, Reference[a]	Class[b]	Issue Identified						Present Status[c]
				Exercise 3/3/82	Exercise 3/9/83	Exercise 11/28/84	Remedial Exercise 4/10/85	Exercise 6/4/86	Remedial Exercise 11/10-12/3/86	
25.	Means for obtaining prompt and accurate field measurements of radioiodine should be specified to provide guidance on protective action decisions.	I.9		X						C
26.	The operation of the Orange County RC/CCC was disjointed and lacked unified management. The lack of a unified operating plan for the RC/CCC would prevent an efficient, adequate operation. In addition, the demonstrated procedures and set up of the RC/CCC were not sufficient to conduct proper and safe registration, monitoring, de-contamination and handling of evacuees. Procedures, operating processes, and plans, including a unified operating plan, should be developed, reviewed, and implemented to ensure that evacuees can be properly and safely processed.	J.12 K.5.a	Def.					X		C
27.	There were various training and equipment inadequacies at the Orange County PMC. These included incomplete monitoring of vehicles, wrong scale being used on the survey meter, radiologically clean areas not being scanned periodically, slow sign-in procedures at the entrance, slow monitoring of vehicles, no separate provisions for decontamination of females, a potable	J.12 K.5.a	ARCA					X		C

TABLE 3.7 (Cont'd)

No.	Description and Recommended Corrective Action	NUREG-0654 FEMA-REP-1 Rev. 1, Reference[a]	Class[b]	Issue Identified: Exercise 3/3/82	Exercise 3/9/83	Exercise 11/28/84	Remedial Exercise 4/10/85	Exercise 6/4/86	Remedial Exercise 11/10-12/3/86	Present Status[c]
	water well within range of contamination from vehicle wash water, and proper sized anti-contamination boots notbeing available for all workers. Additional training should be provided on procedures and equipment use and proper equipment should be provided.									
28.	The nature of the handicap for the non-institutionalized mobility impaired was not known by the bus driver. Information pertaining to the handicaps of noninstitutionalized mobility impaired persons should be made available to the drivers responsible for these routes.	J.10.d	ARCA					X		I
29.	The capability for 24-hour staffing at the Orange County recention/congregate care center was not demonstrated through the presentation of a roster. It appeared that there was not enough trained personnel available to sustain 24-hour operation. Twenty-four hour staffing capability should be demonstrated at the Orange County reception/ congregate care center during the next exercise.	J.12	ARCA					X		I

TABLE 3.7 (Cont'd)

No.	Description and Recommended Corrective Action	NUREG-0654 FEMA-REP-1 Rev. 1, Reference[a]	Class[b]	Issue Identified						Present Status[c]
				Exercise 3/3/82	Exercise 3/9/83	Exercise 11/28/84	Remedial Exercise 4/10/85	Exercise 6/4/86	Remedial Exercise 11/10-12/3/86	
30.	The bus driver responsible for driving an evacuation route was provided with a route map with incorrect information. Bus drivers responsible for driving evacuation routes should be provided with correct maps and a description of each route.	J.10.a				X				C
31.	Provisions for care of the handicapped at the reception center are inadequate. Provisions for care of the handicapped should be considered at the reception centers.	J.10.d	ARCA	X	X	X		X		I
32.	Personal monitoring at the reception center was not thorough; not all body parts were monitored. In addition, evacuees were considered "clean" if their vehicles were "clean". Hence contaminated individuals could potentially be misclassified as not contaminated. Additional training is needed for the reception center personnel who do radiation surveying and decontamination. A training schedule should be provided to FEMA.	J.12	ARCA			X		X		C
33.	More extensive backup systems should be considered for locations where sirens fail to function or where they may be inaudible to those indoors. Use of bullhorns or route alerting should be	E.6		X						C

No.	Description and Recommended Corrective Action	NUREG-0654 FEMA-REP-1 Rev. 1, Reference[a]	Class[b]	Issue Identified: Exercise 3/3/82	Exercise 3/9/83	Exercise 11/28/84	Remedial Exercise 4/10/85	Exercise 6/4/86	Remedial Exercise 11/10-12/3/86	Present Status[c]
34.	Additional training is needed at local hospitals on radiation monitoring.	L.1		X						C
35.	All members of the field monitoring team did not have the required dosimetry equipment. The available dosimetry equipment was not read on a regular basis. o All members of the field monitoring team (including the RACES operator) should have high and low direct reading dosimeters and TLDs. o More training is required to assure that dosimetry is read on a regular basis.	K.3.a K.3.b	ARCA					X		I
36.	Radiological field monitoring team members were not aware of the maximum allowable dose without authorization nor were they aware of how to obtain that information. Team members should receive training in the limits on accumulated doses at which administrative actions are required.	K.5.a	ARCA					X		i