



FEMA

June 22, 2010

Mr. Don Tailleart
Office of Nuclear Security and Incident Response
U.S. Nuclear Regulatory Commission
11555 Rockville Pike, Mail Stop T3B46M
Rockville, MD 20852

Dear Mr. Tailleart:

Enclosed please find a copy of the Final Exercise Report for the Oyster Creek Nuclear Generating Station held on October 6, 2009.

The State of New Jersey and local emergency response organizations successfully demonstrated the capabilities to implement their off-site radiological emergency response plans and procedures, based on the evaluation of this exercise by the FEMA R. II Regional Assistance Committee and a team of Federal evaluators. There was one Deficiency, which was demonstrated to have been corrected in a Remedial Drill on January 28, 2010. Two new Areas Requiring Corrective Actions (ARCAs) were assessed, one of which was shown to have been corrected at an out-of-sequence demonstration in November 2009; the other issue will be evaluated to ensure that it has been corrected at the next full-scale exercise scheduled for September 27, 2011. Three prior state-level ARCAs from the 2008 Salem-Hope Creek Exercise were corrected.

Therefore, we find that State and local preparedness is adequate to protect the health and safety of the public living in the vicinity of the Oyster Creek NGS and will provide reasonable assurance that appropriate measures can be taken offsite in the event of a radiological emergency.

If you have any questions regarding this matter, please contact Rebecca Thomson, Chair of the R. II Regional Assistance Committee at (212) 680-8509.

Sincerely yours,

A handwritten signature in cursive script that reads "Lynn Canton".

Lynn Canton
Regional Administrator

cc: Vanessa Quinn, Chief, Radiological Emergency Preparedness Branch, FEMA HQ
NRC HQ Document Control Desk (w/copy)

Enclosure



Final Exercise Report OYSTER CREEK GENERATING STATION

Licensee: AmerGen

Exercise Date: October 6, 2009 – Plume Phase
January 28, 2010 – Remedial Exercise

Report Date: March 30, 2010

**FEDERAL EMERGENCY MANAGEMENT AGENCY
REGION II
26 Federal Plaza, 13th Floor
New York, New York 10278**

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I. EXECUTIVE SUMMARY

On October 6, 2009 an exercise was conducted for the 10-Mile Plume Exposure Pathway, Emergency Planning Zone (EPZ) around the Oyster Creek Generating Station and evaluated by the Federal Emergency Management Agency, Region II. The purpose of the exercise was to assess the level of State and local preparedness in responding to a radiological emergency.

This exercise was held in accordance with FEMA's policies and guidance concerning the exercise of State and local radiological emergency response plans (RERPs) and procedures.

The most recent prior full-scale plume pathway exercise at this site was conducted on September 18, 2007. The qualifying emergency preparedness exercise was conducted on March 16, 1982.

FEMA wishes to acknowledge the efforts of the many individuals in the State of New Jersey and Ocean County who participated in this exercise. Protecting the public health and safety is the full-time job of some of the exercise participants and an additional assigned responsibility for others. Still others have willingly sought this responsibility by volunteering to provide vital emergency services to their communities. Cooperation and teamwork of all the participants were evident during this exercise.

The State and local organizations, except where noted in this report, demonstrated knowledge of their emergency response plans and procedures and adequately implemented them. Three prior Areas Requiring Corrective Action (ARCAs) from the 2007 Oyster Creek Exercise were resolved at the October 2009 exercise. Three prior State-level ARCAs from the 2008 Salem-Hope Creek Exercise were resolved at the October Oyster Creek 2009 exercise. A Deficiency and one ARCA from the 2009 Exercise were resolved at Remedial Drills in November 2009 and January 2010. There is one new Oyster Creek ARCA from the 2009 exercise remaining.

There were two new Planning Issues identified.

II. INTRODUCTION

On December 7, 1979, the President directed FEMA to assume the lead responsibility for all offsite nuclear planning and response. FEMA's activities are conducted pursuant to 44 Code of Federal Regulations (CFR) Parts 350, 351 and 352. These regulations are a key element in the Radiological Emergency Preparedness (REP) Program that was established following the Three Mile Island Nuclear Station accident in March 1979.

FEMA Rule 44 CFR 350 establishes the policies and procedures for FEMA's initial and continued approval of State and local governments' radiological emergency planning and preparedness for commercial nuclear power plants. This approval is contingent, in part, on State and local government participation in joint exercises with licensees.

FEMA's responsibilities in radiological emergency planning for fixed nuclear facilities include the following:

- Taking the lead in offsite emergency planning and in the review and evaluation of the RERP and associated procedures developed by State and local governments;
- Determining whether such plans and procedures can be implemented on the basis of observation and evaluation of exercises of the plans and procedures conducted by State and local governments;
- Responding to requests by the U.S. Nuclear Regulatory Commission (NRC) pursuant to the Memorandum of Understanding between the NRC and FEMA dated June 17, 1993 (Federal Register, Vol. 58, No. 176, September 14, 1993); and
- Coordinating the activities of Federal agencies with responsibilities in the radiological emergency planning process:
 - U.S. Department of Commerce,
 - U.S. Nuclear Regulatory Commission,
 - U.S. Environmental Protection Agency,
 - U.S. Department of Energy,
 - U.S. Department of Health and Human Services,
 - U.S. Department of Transportation,
 - U.S. Department of Agriculture,
 - U.S. Department of the Interior, and
 - U.S. Food and Drug Administration.

Representatives of these agencies serve on the FEMA Region II Regional Assistance Committee (RAC), which is chaired by FEMA.

The State of New Jersey formally submitted their RERPs for the OCNGS to FEMA Region II on June 16, 1983. FEMA granted formal approval of the RERPs, under 44 CFR 350, on April 30, 1990. The qualifying emergency preparedness exercise was conducted on March 16, 1982.

A REP Plume Phase exercise conducted on October 6, 2009 allowed FEMA Region II to assess the capabilities of State and local emergency preparedness organizations in implementing their RERPs and procedures to protect the public health and safety during a radiological emergency involving the Oyster Creek Generating Station. The purpose of this exercise report is to present the exercise results and findings on the performance of the offsite response organizations (ORO) during a simulated radiological emergency.

The findings presented in this report are based on the evaluations of the Federal evaluator team, with final determinations made by the FEMA Region II RAC Chairperson, and approved by the Regional Administrator.

The criteria utilized in the FEMA evaluation process are contained in:

- 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," November 1980 (hereafter referred to as NUREG-0654);
- FEMA Interim REP Program Manual, August 2002.

Section III of this report, entitled "Exercise Overview," presents basic information and data relevant to the exercise. This section of the report contains a description of the plume pathway EPZ, a listing of all participating jurisdictions and functional entities that were evaluated, and a tabular presentation of the time of actual occurrence of key exercise events and activities.

Section IV of this report, entitled "Exercise Evaluation and Results," presents detailed information on the demonstration of applicable exercise objectives at each jurisdiction or functional entity evaluated in a jurisdiction-based, issues-only format. This section also contains: (1) descriptions of all Deficiencies and ARCAs assessed during this exercise, recommended corrective actions, and the State and local governments' schedule of corrective actions for each identified exercise issue and (2) descriptions of unresolved ARCAs assessed during previous exercises and the status of the OROs' efforts to resolve them.

III. EXERCISE OVERVIEW

Contained in this section are data and basic information relevant to the October 6, 2009 exercise to test the offsite emergency response capabilities in the area surrounding the Oyster Creek Generating Station. This section of the exercise report includes a description of the Plume Pathway EPZ. A listing of all participating jurisdictions and functional entities, which were evaluated, and a tabular presentation of the time of actual occurrence of key exercise events and activities are included in this report.

A. Plume Emergency Planning Zone Description

The Oyster Creek Generating Station site is located on a 1,416-acre plot in both Lacey and Ocean Townships in a broad lowland and tidal marsh area of New Jersey and is flanked on the east by Barnegat Bay. Barnegat Bay is a shallow, narrow body of water, having an average depth of five feet and a maximum width of four miles.

Overland access to the site is provided by US Route 9, which bisects the site into an eastern or bay section of 661 acres and a western section of 755 acres. US Route 9 is one quarter mile east of the facility and passes over the coolant intake and discharge canals, which flow into Barnegat Bay two miles away. The administration building is located adjacent to the site directly west on a plot of land referred to as the Forked River Site.

B. Exercise Participants

The following agencies, organizations, and units of government participated in the Oyster Creek Generating Station exercise on October 6, 2009.

FEDERAL AGENCIES

- Federal Emergency Management Agency
- US Nuclear Regulatory Commission
- United States Coast Guard

STATE of NEW JERSEY

- New Jersey Bureau of Environmental Radiation
- New Jersey State Bureau of Nuclear Engineering
- New Jersey Bureau of Public Utilities
- New Jersey Bureau of Radiological Health
- New Jersey Department of Environmental Protection (NJDEP)
- New Jersey Department of Corrections
- New Jersey Dept. of Military and Veteran Affairs
- New Jersey District Attorney's Office
- NJDEP Bureau of Communications and Support Services
- New Jersey State Department of Health and Senior Services

New Jersey State Office of Homeland Security & Preparedness
New Jersey State Office of Emergency Management
New Jersey State Police
New Jersey Department of Agriculture
New Jersey Department of Environmental Protection
New Jersey Department of Human Services
New Jersey Department of Mental Health Services
New Jersey Department of Transportation
New Jersey State Attorney General's Office
New Jersey State Information Technology Bureau
New Jersey State Transit Police
New Jersey State Highway Patrol
New Jersey Bureau of Communication and Response Services

RISK JURISDICTIONS

OCEAN COUNTY

Ocean County Air Support Squadron
Ocean County Board of Chosen Freeholders
Ocean County Health Department
Ocean County Department of Public Affairs
Ocean County Emergency Medical Services
Ocean County Engineering Department
Ocean County Fire Department
Ocean County Highway Department
Ocean County Office of Communications
Ocean County Office of Education
Ocean County Office of Emergency Management
Ocean County Office of Domestic Preparedness
Ocean County Office of Human Services
Ocean County Office of Public Information
Ocean County Prosecutor's Office
Ocean County Radiological Officer
Ocean County Resource Management
Ocean County Road Department
Ocean County Sheriff's Department
Ocean County Social Services Department
Ocean County Superintendent of Schools
Ocean County Traffic Safety
Ocean County Superior Court
Ocean County Transportation Department
Ocean County Vehicle Services
Ocean County Veterinary Services
Oyster Creek Generating Station

BARNEGAT TOWNSHIP

Barnegat Fire – Station 12
Barnegat Fire Company – Station 11
Barnegat First Aid Squad
Barnegat Police Department
Barnegat Public Works Department
Barnegat Shelter Management
Barnegat Township Code Enforcement
Barnegat Township Mayor’s Office

BERKELEY TOWNSHIP

Bayville Fire Company
Bayville First Aid Squad Inc.
Berkeley Township Animal Control
Berkeley Township Communications Department
Berkeley Township Office of Emergency Management
Berkeley Township Emergency Response Team
Berkeley Township Police Department
Berkeley Township Fire Prevention
Berkeley Township Public Works Department
Holiday City at Berkeley First Aid Squad Inc.
Holiday Heights First Aid Squad
Manitou Park Volunteer Fire Company
Pinewood Pioneer Forest Firefighters/ HazMat Team
Silver Ridge First Aid Squad

BARNEGAT LIGHT BOROUGH

Barnegat Light Borough Administrator
Barnegat Light Borough Mayor’s Office
Barnegat Light Borough Public Works Department
Barnegat Light Fire Department
Barnegat Light First Aid and Rescue Services
Barnegat Light First Aid Squad

BEACHWOOD BOROUGH

Borough of Beachwood Department of Public Works and Water
Borough of Beachwood Fire Department
Borough of Beachwood Office of Emergency Management
Borough of Beachwood Police Department
Borough of Beachwood Volunteer First Aid Squad

BOROUGH OF HARVEY CEDARS

Borough of Harvey Cedars Clerk Office
Borough of Harvey Cedars Commissioners
Borough of Harvey Cedars Department of Public Works

Borough of Harvey Cedars Mayor's Office
Borough of Harvey Cedars Office of Emergency Management
Borough of Harvey Cedars Police Department
High Point Volunteer Fire Company

BOROUGH OF ISLAND HEIGHTS

Borough of Island Heights First Aid and Emergency Medical Services
Borough of Island Heights Mayor's Office
Borough of Island Heights Office of Emergency Management
Borough of Island Heights Police Department
Borough of Island Heights Office of Public Affairs
Borough of Island Heights Public Works Department
Borough of Island Heights Volunteer Fire Department

BOROUGH OF OCEAN GATE

Borough of Ocean Gate Animal Control
Borough of Ocean Gate Finance Office
Borough of Ocean Gate Clerk Office
Borough of Ocean Gate Council
Borough of Ocean Gate Emergency Medical Services
Borough of Ocean Gate Fire Department
Borough of Ocean Gate First Aid
Borough of Ocean Gate Office of Emergency Management
Borough of Ocean Gate Police Department
Borough of Ocean Gate Public Works Department
Borough of Ocean Gate Radiological Officer

BOROUGH OF PINE BEACH

Borough of Pine Beach Fire Department
Borough of Pine Beach Office of Emergency Management
Borough of Pine Beach Police Department
Borough of Pine Beach Shelter Management

BOROUGH OF SEASIDE PARK

Borough of Seaside Park Office of Emergency Management

BOROUGH OF SHIP BOTTOM

18 Mile Association (Fire and First Aid)
Borough of Ship Bottom Volunteer Fire Department
Ship Bottom Borough Police Department
Ship Bottom Borough Office of Emergency Management

BOROUGH OF SOUTH TOMS RIVER

Borough of South Toms River Emergency Medical Services
South Toms River First Aid #37
Borough of South Toms River Office of Emergency Management

SURF CITY BOROUGH

Surf City Borough of Emergency Medical Services
Surf City Borough Fire Department
Surf City Office of Emergency Management
Surf City Police Department

LACEY TOWNSHIP

Lacey Township Office of Emergency Management
Lacey Township Department of Public Works
Lacey Township Emergency Medical Services
Lacey Township Fire Department
Lacey Township Police Department
Lacey Township Radiological Officer
Lanoka Harbor Volunteer Emergency Medical Services
Lanoka Harbor Fire Department

LONG BEACH TOWNSHIP

Beach Haven First Aid Squad
Long Beach Island Board of Education
Long Beach Township Building Department
Long Beach Township Emergency Medical Services
Long Beach Township Mayor's Office
Long Beach Township Fire Services
Long Beach Township Police Department
Long Beach Township Public Works Department

OCEAN TOWNSHIP

Ocean Township Office of Emergency Management
Ocean Township Police Department
Ocean Township Road Department
Ocean Township Utilities Authority
Waretown Volunteer Fire Company #1
Waretown Volunteer First Aid Squad

STAFFORD TOWNSHIP

Stafford Township Department of Public Works
Stafford Township Emergency Medical Services
Stafford Township Fire Department
Stafford Township Office of Emergency Management
Stafford Township Police Department

TOMS RIVER TOWNSHIP

Toms River Township Department of Public Works
Toms River Township Department of Transportation
Toms River Township Fire Department
Toms River Township Mayor's Office
Toms River Township Office of Emergency Management
Toms River Township Office of Public Information
Toms River Township Police Department
Toms River Township Radiological Officer

PRIVATE/VOLUNTEER ORGANIZATIONS

American Red Cross
C.A.R.T. Organization
Community Emergency Response Team
Radio Amateur Civilian Emergency Services (RACES)
Salvation Army
EAS Radio Station: WRAT

C. Exercise Timeline

Table 1, on the following page, presents the time at which key events and activities occurred during the Oyster Creek Generating Station exercise on October 6, 2009. Also included are times that notifications were made to the participating jurisdictions/functional entities.

TABLE 1 – TIMELINE October 6, 2009 – OYSTER CREEK GENERATING STATION

LEGEND: N/A – Not Applicable

Emergency Classification Level or Event	Time Utility Declared	Time That Notification Was Received or Action Was Taken												
		NJ ROIC	EOF	JIC	Ocean County EOC	EAS Station WRAT	Forward Command Post	Barnegat Light Borough	Barnegat Township	Beachwood Borough	Berkley Township	Toms River Township	Ocean Gate Borough	
Unusual Event	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	
Alert	1611	1617	N/A	N/A	1624	1717	N/A	1657	1722	-	1701	1638	1715	
Site Area Emergency	1804	1808	1904	1810	1831	1836	1808	1850	1854	1851	1851	1900	1855	
General Emergency	1907	1916	1907	1909	1927	N/A	1911	1938	1932	1933	1934	1940	2012	
Simulated Rad. Release Started	2020	2020	2020	2020	2041	N/A	2022	2102	2101	2058	2059	2100	2101	
Simulated Rad. Release	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	
Facility Declared Operational		1650	1735	1700	1735	N/A	1733	1750	1730	1807	1730	1720	1743	
Governor Declared State of Emergency		1819	1824	1820	1858	1836	1827	1905	1930	1920	1907	2100	1933	
Exercise Terminated		2230	2230	2203	2146	2140	2235	2118	2152	2207	2126	2135	2122	
"Heads Up" Siren Activation		1833	-	1837	1833	-	-	1857	1901	1913	1915	1910	1911	
"Heads Up" EAS Message		1838	-	-	1838	-	-	-	-	-	-	-	-	
1 st Protective Action Decision														
Shelter: 3, 4, 5, 7, 8, 9, 11, 12, 13, 17, 18		1940	1948	1944	1944	1948	1959	1953	1944	1958	2007	2100	2012	
Evac: 1, 2, 6, 10, 14, 15,														
1 st Siren Activation		1948	-	-	1948	-	-	-	-	-	-	-	-	
1 st EAS Message		1953	-	-	1953	-	-	-	-	-	-	-	-	
KI Administration Decision:		1940	-	1944	-	1948	-	1955	-	1936	1916	1940	-	
Emergency Workers		-	-	-	1928	-	-	-	-	-	-	-	-	
General Public in Evacuated		-	-	1944	1953	-	-	-	-	-	-	-	-	

Emergency Classification Level or Event	Time Utility Declared	Time That Notification Was Received or Action Was Taken												
		Harvey Cedars	Island Heights Borough	Lacey Township	Long Beach Township	Ocean Township	Pine Beach Borough	Ship Bottom Borough	Seaside Park Borough	South Toms River Borough	Stafford Township	Surf City Borough		
Unusual Event	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Alert	1611	1657	1645	1704	1713	1704	1655	1750	1653	1721	1727	1726	1726	1726
Site Area Emergency	1804	1850	1854	1853	1900	1803	1927	1849	1850	1917	1853	1851	1851	1851
General Emergency	1907	1933	1932	1931	1936	1926	1932	1933	1940	1938	1936	1930	1930	1930
Simulated Rad. Release Started	2020	2058	2059	2053	2056	2040	2040	2058	2057	2105	2044	2100	2100	2100
Simulated Rad. Release Terminated	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Facility Declared Operational		1720	1730	1723	1717	1735	1715	1751	1720	1744	1752	1753	1753	1753
Governor Declared State of Emergency		1905	1915	1919	1910	1939	1925	1921	1819	1819	1901	1921	1921	1921
Exercise Terminated		2100	2120	2121	2127	2127	2138	2142	N/A	2155	2155	2130	2130	2130
"Heads Up" Siren Activation		1857	1901	1903	1910	1948	1850	1910	1910	1903	1901	1907	1907	1907
"Heads Up" EAS Message		-	-	-	-	-	-	-	-	-	-	-	-	-
1 st Protective Action Decision		1953	2059	1955	1951	1957	1957	1958	2100	2105	2015	1953	1953	1953
Shelter: 3, 4, 5, 7, 8, 9, 11, 12, 13, 17, 18 Evac: 1, 2, 6, 10, 14, 15, 16, 19, 20		-	-	-	-	-	-	-	-	-	-	-	-	-
1 st Siren Activation		-	-	-	-	-	-	-	-	-	-	-	-	-
1 st EAS Message		1953	2059	1955	1951	-	-	-	-	-	1938	-	-	-
KI Administration Decision:		N/A	N/A	N/A	N/A	1926	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Emergency Workers		N/A	N/A	N/A	N/A	1957	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
General Public		N/A	N/A	N/A	N/A	1957	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A

TABLE 2 Oyster Creek Remedial Exercise January 28, 2010

Emergency Classification Level or Event	Time Utility Declared	Time That Notification Was Received or Action Was Taken							
		New Jersey State ROIC	Ocean County EOC	Beachwood Borough EOC	Lacey Township EOC	Harvey Cedars Borough EOC	Long Beach Township EOC	Stafford Township EOC	Barnegat Township EOC
Alert	1755	1800	1803	1813	1808	1811	1808	1809	1808
Site Area Emergency	1900	1905	1905	1933	1927	1929	1927	1925	1931
General Emergency	2000	2005	2005	2022	2014	2019	2017	2019	2020
Simulated Rad. Release Started		2036	2026	2047	2047	2050	2047	2049	2056
Simulated Rad. Release Terminated		N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Facility Declared Operational		N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Governor's Declaration of State of Emergency		1925	1928	1941	1938	1940	1945	1938	1937
Exercise Terminated		2102	2102	2107	2106	2107	2103	2106	2107
Early Precautionary Actions		1819	1814	1829	1823	1827	1824	1818	1824
1st A & N Sequence Decision		1925	1933	1957	1939	1948	1944	1940	1952
1st Siren Activation		1933	1933	1957	1939	1948	1944	1940	1952
1st EAS Message Broadcast		1938	1933	1957	1939	1948	1944	1940	1952
1st Protective Action Decision - NONE		N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Shelter: Evac:		2015	2015	2028	2029	2024	2022	2022	2020
2 nd A&N sequence Decision		2023	2015	2028	2029	2024	2022	2022	2020
2nd Siren Activation		2028	2015	2028	2029	2024	2022	2022	2020
2nd EAS Message Broadcast		2028	2015	2028	2029	2024	2022	2022	2020
2nd Protective Action Decision		2028	2015	2028	2029	2024	2022	2022	2020
Shelter: 3, 4, 5, 7, 8, 9, 11, 12, 13, 17, 18									
Evac: 1, 2, 6, 10, 14, 15, 16, 19, 20									
KI Administration Decision:		2005	2005	2024	2017	2021	2017	2020	2024

Emergency Classification Level or Event	Time That Notification Was Received or Action Was Taken										
	Barnegat Light Borough EOC	Island Heights Borough EOC	Berkeley Township EOC	Ocean Gate Borough EOC	Pine Beach Borough EOC	Seaside Park Borough EOC	South Toms River Borough EOC	Toms River Township EOC			
Alert	1808	1811	1806	1808	1810	1807	1810	1809			
Site Area Emergency	1926	1931	1923	1925	1929	1941	1928	1945			
General Emergency	2015	2020	2012	2015	2019	2013	2019	2016			
Simulated Rad. Release Started	2047		2051	2051	2054	2054	2053	2050			
Simulated Rad. Release Terminated	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A			
Facility Declared Operational	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A			
Governor's Declaration of State of Emergency	1938	1941	1942	2028	1940	1939	1936	1940			
Exercise Terminated	2105	2053	2104	2102	2115	2105	2106	2106			
Early Precautionary Action	1824		1822	1824	1825	1821	1825	1823			
1st A & N Sequence Decision	1942	1948	1941	1945	1929	1941	1949	1945			
1st Siren Activation	1942	1948	1941	1945	1929	1941	1949	1945			
1st EAS Message Broadcast	1942	1948	1941	1945	1929	1941	1949	1945			
1st Protective Action Decision - NONE Shelter: Evac:	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A			
2 nd A&N sequence Decision	2022	2033	2029	2028	2024	2023	2020	2025			
2nd Siren Activation	2022	2033	2029	2028	2024	2023	2020	2025			
2nd EAS Message Broadcast	2022	2033	2029	2028	2024	2023	2020	2025			
2nd Protective Action Decision Shelter: 3, 4, 5, 7, 8, 9, 11, 12, 13, 17, 18 Evac: 1, 2, 6, 10, 14, 15, 16, 19, 20	2022	2033	2029	2028	2024	2023	2020	2025			
KI Administration Decision:	2016		2015	2016	2020	2014	2020	2018			

Emergency Classification Level or Event	Time Utility Declared	Time That Notification Was Received or Action Was Taken			
		Ocean Township EOC	Ship Bottom Borough EOC	Surf City Borough EOC	
Alert	1755	1811	1813	1807	
Site Area Emergency	1900	1928	1930	1925	
General Emergency	2000	2017	2023	2012	
Simulated Rad. Release Started		2045	2052	2045	
Simulated Rad. Release Terminated	N/A	N/A	N/A	N/A	
Facility Declared Operational		N/A	N/A	N/A	
Declaration of State of Emergency		1941	1942	1934	
Exercise Terminated		2102	2107	2103	
Early Precautionary Actions:		1824	1838	1823	
1st Protective Action Decision Shelter: Evacuate:		1941	1945	1933	
1st Siren Activation		1941	1945	1933	
1st EAS Message		1941	1945	1933	
2nd Protective Action Decision Shelter: 3, 4, 5, 7, 8, 9, 11, 12, 13, 17, 18 Evac: 1, 2, 6, 10, 14, 15, 16, 19, 20		2027	2023	2022	
2nd Siren Activation		2027	2023	2022	
2nd EAS Message		2027	2023	2022	
KI Administration Decision:		2017	2026	2012	

IV. EXERCISE EVALUATION AND RESULTS

Contained in this section are the results and findings of the evaluation of all jurisdictions and functional entities which participated in the September 18, 2007, Plume Pathway Exercise to test the offsite emergency response capabilities of State and local governments in the 10-Mile EPZ surrounding the Oyster Creek Generating Station.

Each jurisdiction and functional entity was evaluated on the basis of its demonstration of criteria delineated in exercise evaluation areas contained in the FEMA Interim REP Program Manual, August 2002. Detailed information on the exercise criteria and the extent-of-play agreement used in this exercise are found in Appendix 3 of this report.

A. Summary Results of Exercise Evaluation

The matrix presented in Table 2, on the following page(s), presents the status of all exercise evaluation areas and criteria that were scheduled for demonstration during this exercise by all participating jurisdictions and functional entities. Exercise objectives are listed by number and the demonstration status of those objectives is indicated by the use of the following letters:

- M - Met (No Deficiency or ARCAs assessed and no unresolved ARCAs from prior exercises)
- D - Deficiency assessed
- A - ARCA(s) assessed or unresolved ARCA(s) from prior exercise(s)
- N - Not Demonstrated (Reason explained in Subsection B)

SITE
Oyster Creek

DATE
6-Oct-09
Remedials
16-Nov-09
28-Jan-10

Mobilization	EMERGENCY OPNS MANAGEMENT		PROTECTIVE ACTION DECISION-MAKING					PROTECTIVE ACTION IMPLEMENTATION					FIELD MEASUREMENT & ANALYSIS				EMERG NOTIF & PUBLIC INFO			SUPPORT OPN/FACILITIES													
	1a1	1b1	1c1	1d1	1e1	2a1	2b1	2c1	2d1	2e1	3a1	3b1	3c1	3c2	3d1	3d2	3e1	3e2	3f1	4a1	4a2	4a3	4b1	4c1	5a1	5a2	5a3	5b1	6a1	6b1	6c1	6d1	
	M		M	M																													
Barnegat Township EOC	M		M	M																													
Berkeley Township EOC	M		M	M																													
Borough of Barnegat Light EOC	M		M	M																													
Borough of Beachwood EOC	M		M	M																													
Borough of Harvey Cedars EOC	M		M	M																													
Borough of Island Heights EOC	M		M	M																													
Borough of Ocean Gate EOC	M		M	M																													
Borough of Pine Beach EOC	M		M	M																													
Borough of Seaside Park	M		M	M																													
Borough of Ship Bottom EOC	M		M	M																													
Borough of South Toms River EOC	M		M	M																													
Borough of Surf City EOC	M		M	M																													
Lacey Township EOC	M		M	M																													

M - Met (No Deficiency or ARCA(s) Assessed and no Unresolved ARCA(s) from Prior Exercises

N - Not Demonstrated as Scheduled (Reason Explained in Section IV.B)

Blank - Not Scheduled for Demonstration or Not Assigned to Facility/Function

A - ARCA(s) Assessed or Unresolved ARCA(s) from Prior Exercises

A1 - ARCA Assessed and Corrected

D - Deficiency

D-1 Deficiency Assessed and Corrected

B. Status of Jurisdictions Evaluated

This subsection provides information on the evaluation of each participating jurisdiction and functional entity, in a jurisdiction based, issues only format. Presented below is a definition of the terms used in this subsection relative to objective demonstration status.

- **Met** - Listing of the demonstrated exercise objectives under which no Deficiencies or ARCAs were assessed during this exercise and under which no ARCAs assessed during prior exercises remain unresolved.
- **Deficiency** - Listing of the demonstrated exercise objectives under which one or more Deficiencies was assessed during this exercise. Included is a description of each Deficiency and recommended corrective actions.
- **Area Requiring Corrective Actions** - Listing of the demonstrated exercise objectives under which one or more ARCAs were assessed during the current exercise or ARCAs assessed during prior exercises remain unresolved. Included is a description of the ARCAs assessed during this exercise and the recommended corrective action to be demonstrated before or during the next biennial exercise.
- **Not Demonstrated - Listing** of the exercise objectives which were not demonstrated as scheduled during this exercise and the reason they were not demonstrated.
- **Prior ARCAs - Resolved** - Descriptions of ARCAs assessed during previous exercises that were resolved in this exercise and the corrective actions demonstrated.
- **Prior ARCAs - Unresolved** - Descriptions of ARCAs assessed during prior exercises that were not resolved in this exercise. Included is the reason the ARCA remains unresolved and recommended corrective actions to be demonstrated before or during the next biennial exercise.

The following are definitions of the two types of exercise issues that are discussed in this report.

- A **Deficiency** is defined as "...an observed or identified inadequacy of organizational performance in an exercise that could cause a finding that offsite emergency preparedness is not adequate to provide reasonable assurance that appropriate protective measures can be taken in the event of a radiological emergency to protect the health and safety of the public living in the vicinity of a nuclear power plant."

- An **ARCA** is defined as “...an observed or identified inadequacy of organizational performance in an exercise that is not considered, by itself, to adversely impact public health and safety.”

FEMA has developed a standardized system for numbering exercise issues (Deficiencies and ARCAs). This system is used to achieve consistency in numbering exercise issues among FEMA Regions and site-specific exercise reports within each Region. It is also used to expedite tracking of exercise issues on a nationwide basis.

The identifying number for Deficiencies and ARCAs includes the following elements, with each element separated by a hyphen (-).

- **Plant Site Identifier** - A two-digit number corresponding to the Utility Billable Plant Site Codes.
- **Exercise Year** - The last two digits of the year the exercise was conducted.
- **Evaluation Criterion Number** - An alphanumeric corresponding to the evaluation criteria in the FEMA Interim REP Program Manual (e.g., 1.a.1).
- **Issue Classification Identifier** - (D = Deficiency, A = ARCA). Only Deficiencies and ARCAs are included in exercise reports.
- **Exercise Issue Identification Number** - A separate two (or three) digit indexing number assigned to each issue identified in the exercise.

1. STATE OF NEW JERSEY

1.1 New Jersey State Emergency Operations Center

- a. **MET:** 1.a.1; 1.c.1; 1.d.1; 1.e.1; 2.a.1; 2.b.1; 2.b.2; 2.c.1; 3.c.1; 5.a.1; 5.b.1
- b. **DEFICIENCY:** NONE
- c. **AREAS REQUIRING CORRECTIVE ACTION:** NONE
- d. **NOT DEMONSTRATED:** NONE
- e. **PRIOR ARCAs - RESOLVED:** TWO

ISSUE: 02-08-5.b.1-A-01

CONDITION: Failure to include in a press release from the State EOC precautionary actions of rail and air closures, and putting animals on stored feed, resulted in delays to the public in receiving this information from the ENC.

CORRECTIVE ACTION DEMONSTRATED: Public Information staff ensured that all precautionary actions that the public information were released in a timely manner.

ISSUE: 43-07-5.b.1-A-01

CONDITION: The Special News Broadcast prepared to accompany EAS message number 2, did not contain all of the information necessary to provide the public with instructions on implementing the Protective Action Decisions. Specifically, the message did not include information for pets, schools, and special populations.

CORRECTIVE ACTION DEMONSTRATED: The follow-on Special News Broadcast to Emergency Alert System (EAS) Message number two contains information and instructions for the caring of pets for people evacuating the affected areas. This closes the previous ARCA 02-08-5.b.1-A-01 from the Salem Hope Creek exercise of May 20, 2008.

- f. **PRIOR ARCAs - UNRESOLVED:** NONE

1.2 Oyster Creek Emergency Operations Facility

- a. **MET:** 1.a.1; 1.c.1; 1.d.1; 1.e.1; 2.a.1; 2.b.1; 4.a.2
- b. **DEFICIENCY:** NONE
- c. **AREAS REQUIRING CORRECTIVE ACTION:** NONE
- d. **NOT DEMONSTRATED:** NONE
- e. **PRIOR ARCAs - RESOLVED:** NONE
- f. **PRIOR ARCAs - UNRESOLVED:** NONE

1.3 Bureau of Nuclear Engineering - Forward Command Post

- a. **MET:** 1.a.1; 1.c.1; 1.d.1; 1.e.1; 3.a.1; 3.b.1; 4.a.2
- b. **DEFICIENCY:** NONE
- c. **AREAS REQUIRING CORRECTIVE ACTION:** NONE
- d. **NOT DEMONSTRATED:** NONE
- e. **PRIOR ARCAs - RESOLVED:** ONE

ISSUE: 02-08-4.a.2-A-04

CONDITION: Field Monitoring Team (FMT) A was instructed to perform a traversal and take an air sample at centerline. The time 2025 recorded for traversal (Attachment 206-7) and open/closed (Attachment 206-6) measurements was inconsistent with the on-off time recorded for the air sample (Attachment 206 - 8) taken at the centerline. The five-minute air sample was completed at 1957. The time 2025 coincided with the Radio Operator's log of the time the data for beta/gamma survey, air sample and plume traversal were received from FMT A.

CORRECTIVE ACTION DEMONSTRATED: The forms used by the FCP Radio Operator to record the FMTs' field information were revised to clarify that the time requested on the forms was the time the sample was taken or the traversal began not the time the team arrived at the site or the time the data was transmitted to the FCP. In addition, the forms were revised to number the lines so it reduced radio transmission time and the potential for recording error. This closes the previous ARCA 02-08-4.a.2-A04 from the Salem Hope Creek Exercise of May 20, 2008.

ISSUE: 02-08-1.e.1-A-02

CONDITION: Arriving BNE staff was without KI or self-reading dosimetry. Since the EOF is within the 10-mile EPZ and there is considerable transit time for the staff who are located in the Trenton area to arrive at the EOF, it is possible that a plume might be over the EOF. Emergency responders should not enter the EPZ without appropriate dosimetry and KI.

CORRECTIVE ACTION DEMONSTRATED: Based on an interview with the EOF BNE Lead, there is a supply of 10 high Range Direct Reading Dosimeters (DRDs) with a range of 0-20 R and 10 Low Range DRDs with a Range of 0-200 mR available for issue to New Jersey Bureau of Nuclear Engineering (BNE) field monitoring team members and Forward Command Post (FCP) staff who report to the FCP, which is located within the 10-mile Emergency Planning Zone (EPZ). Records from the New Jersey State Calibration Laboratory document the calibration of these DRDs within the last year (June 15, 2009). The documentation also indicated that the low range DRDs had been leak tested on a quarterly basis. The availability of this dosimetry (and KI with an expiration date of February 2014) and the knowledge of the staff about the pick-up requirement, closes a previous ARCA 02-08-1.e.1-A-02 from the Salem Hope Creek exercise of May 2008.

f. PRIOR ARCAs - UNRESOLVED: NONE

1.4 Oyster Creek Joint Information Center

a. MET: 1.a.1; 1.c.1; 1.d.1; 1.e.1; 5.b.1

b. DEFICIENCY: NONE

c. AREAS REQUIRING CORRECTIVE ACTION: NONE

d. NOT DEMONSTRATED: NONE

e. PRIOR ARCAs - RESOLVED: NONE

f. PRIOR ARCAs - UNRESOLVED: NONE

1.5 State Radiological Field Monitoring Team A

- a. **MET:** 1.d.1; 3.a.1; 3.b.1; 4.a.1; 4.a.3
- b. **DEFICIENCY:** NONE
- c. **AREAS REQUIRING CORRECTIVE ACTION:** NONE
- d. **NOT DEMONSTRATED:** NONE
- e. **PRIOR ARCAs - RESOLVED:** NONE
- f. **PRIOR ARCAs - UNRESOLVED:** NONE

1.6 State Radiological Field Monitoring Team B

- a. **MET:** 1.d.1; 3.a.1; 3.b.1; 4.a.1; 4.a.3
- d. **DEFICIENCY:** NONE
- e. **AREAS REQUIRING CORRECTIVE ACTION:** NONE
- d. **NOT DEMONSTRATED:** NONE
- e. **PRIOR ARCAs - RESOLVED:** NONE
- f. **PRIOR ARCAs - UNRESOLVED:** NONE

2. RISK JURISDICTIONS

2.1 OCEAN COUNTY

2.1.1 Ocean County Emergency Operations Center

- a. **MET:** 1.a.1; 1.e.1; 2.a.1; 3.a.1; 3.b.1; 3.c.1; 3.c.2; 3.d.1; 3.d.2; 5.a.1
- b. **DEFICIENCY:** ONE

ISSUE: 43-09-1.d.1-D-01

CONDITION: The Ocean County Emergency Operations Center did not demonstrate the ability to establish communications in a timely manner and maintain that communication in support of emergency operations with the municipalities throughout the duration of the exercise. Inconsistent use of the primary means of communication, which was to be the telephone according to the Extent of Play Agreement and the New Jersey State Plan, Annex B (pg. B-1-5 and Table B-1-1), occurred throughout the exercise.

- Lapse in notification of information. Notification of the first Protective Action Decision arrived at the OCEOC at 1944. The following municipalities received notification at the times stated below:

- Pine Beach 2040 - 54 minutes later
- Island Heights 2059 - 1 hour and 15 minutes
- Seaside Park 2100 - 1 hour and 16 minutes
- Toms River 2100 - 1 hour and 16 minutes
- South Toms River 2105 - 1 hour and 21 minutes

POSSIBLE CAUSE: Varied methods of communication were used for different municipalities. The county used a FORM B "County Initial Contact Message Form," which is not included in the county plan, to solicit feedback from the municipalities on what primary and secondary method of communications they wished to be notified during the event. Varied methods chosen by the municipalities included: telephone, 800 MHz, fax, email, and RACES. When the county attempted to verify that a municipality received emergency information that it sent to them, they were only able to verify for those municipalities choosing 800 MHz, telephone, and RACES. The county kept a log of the verification; however, Toms River, which had opted to be contacted primarily via email was not on any of these confirmation sheets. The County did not follow their plan that states that commercial telephone is the primary means to contact the risk jurisdictions.

REFERENCE: NUREG-0654 F.1.b, New Jersey RERP Annex B, Oyster Creek Generating Station, Appendix1, Ocean County, Table B-1-1 Emergency Facility Communications.

EFFECT: Local risk jurisdictions did not receive important protective action decisions and follow-on special news broadcasts in a timely manner, thus potentially endangering the health and safety of the public.

RECOMMENDATION: Train county EOC personnel on proper primary and backup communications along with follow up procedures as outlined in the plan.

SCHEDULE OF CORRECTIVE ACTIONS: The remedial exercise is scheduled for January 28, 2010.

REMEDIAL ACTION DEMONSTRATED: During the January 28, 2010 remedial exercise Ocean County Emergency Operations Center (EOC) successfully demonstrated the ability to manage communications capabilities in support of emergency operations. Ocean County EOC demonstrated a consistent and timely process of communicating protective action decisions, and follow-on special news broadcasts with their seventeen risk municipalities in accordance with their revised plan. This redemonstration resolves Deficiency 43-09-1.d.1 – D-01 from the October 6, 2009 Oyster Creek exercise.

c. AREAS REQUIRING CORRECTIVE ACTION: ONE

ISSUE: 43-09-5.b.1-A-01

CONDITION: Ocean County News Release number four was faxed to the State PIO at 2040. The news release reported the preparedness activities underway at the Ocean County Emergency Operations Center (EOC) and the ERPAs being evacuated. It also reported that the Ocean County Health Department advised all residents to take KI pills. This information is not consistent with the PAD information contained in the EAS message broadcast at 1953 recommending KI for only those being evacuated.

POSSIBLE CAUSE: Lack of attention to detail.

REFERENCE: NUREG – 0654 E, 5, 7: G.3.a, G.4.a

EFFECT: Public confusion on whether or not to take KI and an increase in calls to emergency phone numbers to get clarification.

RECOMMENDATION: EAS messages and follow on news releases need to be reviewed for consistency. Press releases came from the Joint News Center as well as the Ocean County EOC. Consolidation of press releases should be considered.

SCHEDULE OF CORRECTIVE ACTIONS: To be demonstrated at the 2011 full scale federally-evaluated biennial exercise.

d. **NOT DEMONSTRATED:** NONE

e. **PRIOR ARCAs - RESOLVED:** NONE

ISSUE: 43-07-1.c.1-A-04

ISSUE: Ocean County did not fax the notice of the first alert and notification EAS message sequence to some of the risk municipalities after they were notified and received this message from NJOEM.

REASON UNRESOLVED: ARCA unsuccessfully redemonstrated at the 2009 full scale exercise. (See deficiency issue, page 27)

CORRECTIVE ACTION DEMONSTRATED: At the January 28, 2010 Remedial Exercise, Ocean County successfully faxed all alert and notification EAS message sequences to all risk municipalities in a timely manner without any undue delays. This issue is resolved.

f. **PRIOR ARCAs – UNRESOLVED:** NONE

2.1.2 Ocean County Emergency Worker Decontamination Center (Lanoka Harbor Volunteer Fire Company – May 15, 2008)

a. **MET:** 3.a.1; 3.b.1; 6.a.1; 6.b.1

b. **DEFICIENCY:** NONE

c. **AREAS REQUIRING CORRECTIVE ACTION:** NONE

d. **NOT DEMONSTRATED:** NONE

e. **PRIOR ARCAs – RESOLVED:** NONE

f. **PRIOR ARCAs – UNRESOLVED:** NONE

2.1.3 Ocean County Emergency Worker Decontamination Center (Seaside Heights Volunteer Fire Company –April 8, 2009)

a. **MET:** 3.a.1; 3.b.1; 6.a.1; 6.b.1

b. **DEFICIENCY:** NONE

- c. **AREAS REQUIRING CORRECTIVE ACTION: NONE**
- d. **NOT DEMONSTRATED: NONE**
- e. **PRIOR ARCAs – RESOLVED: NONE**
- f. **PRIOR ARCAs – UNRESOLVED: NONE**

2.1.4 Ocean County General Population Reception Center (Pinelands Regional High School – July 16, 2009)

- a. **MET: 3.a.1; 3.b.1; 6.a.1; 6.b.1**
- b. **DEFICIENCY: NONE**
- c. **AREAS REQUIRING CORRECTIVE ACTION: NONE**
- d. **NOT DEMONSTRATED: NONE**
- e. **PRIOR ARCAs – RESOLVED: NONE**
- f. **PRIOR ARCAs – UNRESOLVED: NONE**

2.1.5 Ocean County – General Population Reception Center (Brick Township High School – July 16, 2008)

- a. **MET: 3.a.1; 3.b.1; 6.a.1; 6.b.1**
- b. **DEFICIENCY: NONE**
- c. **AREAS REQUIRING CORRECTIVE ACTION: NONE**
- d. **NOT DEMONSTRATED: NONE**
- e. **PRIOR ARCAs – RESOLVED: NONE**
- f. **PRIOR ARCAs – UNRESOLVED: NONE**

2.1.6 School Interviews (17 Schools – July 27 & 28, 2009)

- a. **MET: 3.c.2**
- b. **DEFICIENCY: NONE**

- c. **AREAS REQUIRING CORRECTIVE ACTION: NONE**
- d. **NOT DEMONSTRATED: NONE**
- e. **PRIOR ARCAs – RESOLVED: NONE**
- f. **PRIOR ARCAs – UNRESOLVED: NONE**

2.1.7 Ocean County – School Bus Company (Lacey Township School District (July 28, 2009)

- a. **MET: 3.a.1; 3.b.1; 3.c.2**
- b. **DEFICIENCY: NONE**
- c. **AREAS REQUIRING CORRECTIVE ACTION: NONE**
- d. **NOT DEMONSTRATED: NONE**
- e. **PRIOR ARCAs – RESOLVED: NONE**
- f. **PRIOR ARCAs – UNRESOLVED: NONE**

2.1.8 Ocean County (Waterway Access Control Point – Aug. 10, 2009)

- a. **MET: 3.a.1; 3.b.1; 3.d.1**
- b. **DEFICIENCY: NONE**
- c. **AREAS REQUIRING CORRECTIVE ACTION: NONE**
- d. **NOT DEMONSTRATED: NONE**
- e. **PRIOR ARCAs – RESOLVED: NONE**
- f. **PRIOR ARCAs – UNRESOLVED: NONE**

2.1.9 Ocean County – General Population Bus Company (New Jersey Transit - Lakehurst Naval Base July 29, 2009)

- a. **MET: 3.a.1; 3.b.1; 3.c.1**
- b. **DEFICIENCY: NONE**

- c. **AREAS REQUIRING CORRECTIVE ACTION: NONE**
- d. **NOT DEMONSTRATED: NONE**
- e. **PRIOR ARCAs – RESOLVED: NONE**
- f. **PRIOR ARCAs – UNRESOLVED: NONE**

2.1.10 Ocean County – Medical Services Drill – (Toms River Community Medical Center Oct. 27, 2009)

- a. **MET: 3.a.1;3.b.1;6.d.1**
- b. **DEFICIENCY: NONE**
- c. **AREAS REQUIRING CORRECTIVE ACTION: NONE**
- d. **NOT DEMONSTRATED: NONE**
- e. **PRIOR ARCAs – RESOLVED: NONE**
- f. **PRIOR ARCAs – UNRESOLVED: NONE**

2.2 RISK MUNICIPALITIES

2.2.1 Barnegat Township EOC

- a. MET: 1.a.1; 1.c.1; 1.d.1; 1.e.1; 3.a.1; 3.c.1; 3.c.2; 3.d.1; 3.d.2**
- b. DEFICIENCY: NONE**
- c. AREAS REQUIRING CORRECTIVE ACTION: NONE**
- d. NOT DEMONSTRATED: NONE**
- e. PRIOR ARCAs – RESOLVED: NONE**
- f. PRIOR ARCAs – UNRESOLVED: NONE**

2.2.2 Berkeley Township EOC

- a. MET: 1.a.1; 1.c.1; 1.d.1; 1.e.1; 3.a.1; 3.c.1; 3.c.2; 3.d.1; 3.d.2**
- b. DEFICIENCY: NONE**
- c. AREAS REQUIRING CORRECTIVE ACTION: NONE**
- d. NOT DEMONSTRATED: NONE**
- e. PRIOR ARCAs – RESOLVED: NONE**
- f. PRIOR ARCAs – UNRESOLVED: NONE**

2.2.3 Borough of Barnegat Light EOC

- a. MET: 1.a.1; 1.c.1; 1.d.1; 1.e.1; 3.a.1; 3.c.1; 3.c.2; 3.d.1; 3.d.2**
- b. DEFICIENCY: NONE**
- c. AREAS REQUIRING CORRECTIVE ACTION: NONE**
- d. NOT DEMONSTRATED: NONE**
- e. PRIOR ARCAs – RESOLVED: NONE**
- f. PRIOR ARCAs – UNRESOLVED: NONE**

2.2.4 Borough of Beachwood EOC

- a. **MET:** 1.a.1; 1.c.1; 1.d.1; 1.e.1; 3.a.1; 3.c.1; 3.c.2; 3.d.1; 3.d.2
- b. **DEFICIENCY:** NONE
- c. **AREAS REQUIRING CORRECTIVE ACTION:** NONE
- d. **NOT DEMONSTRATED:** NONE
- e. **PRIOR ARCAs - RESOLVED:** ONE

ISSUE: 43-07-1.c.1-A-05

CONDITION: The Beachwood Borough Radiological Officer (RO) and the Emergency Management Coordinator (EMC) did not take action to obtain KI from Ocean County OEM and make it available for Beachwood Borough Emergency Workers, should they voluntarily ingest Potassium Iodide (KI) after the Emergency Classification Level (ECL) was raised to General Emergency (GE).

CORRECTIVE ACTION DEMONSTRATED: The Emergency Management Coordinator (EMC) conducted a briefing at 1843 and went over the potassium iodide (KI) policy with the staff at the EOC. The EMC stated that usually Ocean County EOC would initiate the delivery of the KI and the TLDs to the EOC. If Ocean County EOC didn't initiate the coordination, the EMC told the evaluator that the Radiological Officer or the EMC would contact Ocean County EOC and request the supplies. At 1914, Ocean County EOC advised Beachwood EOC that KI and TLDs were being delivered (simulated) to all municipal EOCs. Ocean County notified the Borough of Beachwood EOC at 1933 that a General Emergency was declared. Upon being notified, the EMC held a briefing to update the EOC staff of the current conditions and advised emergency workers to ingest their KI.

- f. **PRIOR ARCAs - UNRESOLVED:** NONE

2.2.5 Borough of Harvey Cedars EOC

- a. **MET:** 1.a.1; 1.c.1; 1.d.1; 1.e.1; 3.a.1; 3.c.1; 3.c.2; 3.d.1; 3.d.2
- b. **DEFICIENCY:** NONE
- c. **AREAS REQUIRING CORRECTIVE ACTION:** NONE
- d. **NOT DEMONSTRATED:** NONE

- e. **PRIOR ARCAs - RESOLVED: NONE**
- f. **PRIOR ARCAs - UNRESOLVED: NONE**

2.2.6 Borough of Island Heights EOC

- a. **MET: 1.a.1; 1.c.1; 1.d.1; 1.e.1; 3.a.1; 3.c.1; 3.c.2; 3.d.1; 3.d.2**
- b. **DEFICIENCY: NONE**
- c. **AREAS REQUIRING CORRECTIVE ACTION: NONE**
- d. **NOT DEMONSTRATED: NONE**
- e. **PRIOR ARCAs - RESOLVED: NONE**
- f. **PRIOR ARCAs - UNRESOLVED: NONE**

2.2.7 Borough of Ocean Gate EOC

- a. **MET: 1.a.1; 1.c.1; 1.d.1; 1.e.1; 3.a.1; 3.c.1; 3.c.2; 3.d.1; 3.d.2**
- b. **DEFICIENCY: NONE**
- c. **AREAS REQUIRING CORRECTIVE ACTION: NONE**
- d. **NOT DEMONSTRATED: NONE**
- e. **PRIOR ARCAs - RESOLVED: NONE**
- f. **PRIOR ARCAs - UNRESOLVED: NONE**

2.2.8 Borough of Pine Beach EOC

- a. **MET: 1.a.1; 1.c.1; 1.d.1; 1.e.1; 3.a.1; 3.c.1; 3.c.2; 3.d.1; 3.d.2**
- b. **DEFICIENCY: NONE**
- c. **AREAS REQUIRING CORRECTIVE ACTION: NONE**
- d. **NOT DEMONSTRATED: NONE**
- e. **PRIOR ARCAs - RESOLVED: NONE**

- f. **PRIOR ARCAs - UNRESOLVED: NONE**

2.2.9 Borough of Seaside Park

- a. **MET: 1.a.1; 1.c.1; 1.d.1; 1.e.1; 3.a.1; 3.c.1; 3.c.2; 3.d.1; 3.d.2**
- b. **DEFICIENCY: NONE**
- c. **AREAS REQUIRING CORRECTIVE ACTION: NONE**
- d. **NOT DEMONSTRATED: NONE**
- e. **PRIOR ARCAs - RESOLVED: NONE**
- f. **PRIOR ARCAs - UNRESOLVED: NONE**

2.2.10 Borough of Ship Bottom EOC

- a. **MET: 1.a.1; 1.c.1; 1.d.1; 1.e.1; 3.a.1; 3.c.1; 3.c.2; 3.d.1; 3.d.2**
- b. **DEFICIENCY: NONE**
- c. **AREAS REQUIRING CORRECTIVE ACTION: NONE**
- d. **NOT DEMONSTRATED: NONE**
- e. **PRIOR ARCAs - RESOLVED: NONE**
- f. **PRIOR ARCAs - UNRESOLVED: NONE**

2.2.11 Borough of South Toms River EOC

- a. **MET: 1.a.1; 1.c.1; 1.d.1; 1.e.1; 3.a.1; 3.c.1; 3.c.2; 3.d.1; 3.d.2**
- b. **DEFICIENCY: NONE**
- c. **AREAS REQUIRING CORRECTIVE ACTION: NONE**
- d. **NOT DEMONSTRATED: NONE**
- e. **PRIOR ARCAs - RESOLVED: NONE**
- f. **PRIOR ARCAs - UNRESOLVED: NONE**

2.2.12 Borough of Surf City EOC

- a. **MET:** 1.a.1; 1.c.1; 1.d.1; 1.e.1; 3.a.1; 3.c.1; 3.c.2; 3.d.1; 3.d.2
- b. **DEFICIENCY:** NONE
- c. **AREAS REQUIRING CORRECTIVE ACTION:** NONE
- d. **NOT DEMONSTRATED:** NONE
- e. **PRIOR ARCAs - RESOLVED:** NONE
- f. **PRIOR ARCAs - UNRESOLVED:** NONE

2.2.13 Lacey Township EOC

- a. **MET:** 1.a.1; 1.c.1; 1.d.1; 1.e.1; 3.a.1; 3.c.1; 3.c.2; 3.d.1; 3.d.2
- b. **DEFICIENCY:** NONE
- c. **AREAS REQUIRING CORRECTIVE ACTION:** NONE
- d. **NOT DEMONSTRATED:** NONE
- e. **PRIOR ARCAs - RESOLVED:** NONE
- f. **PRIOR ARCAs - UNRESOLVED:** NONE

2.2.14 Long Beach Township EOC

- a. **MET:** 1.a.1; 1.c.1; 1.d.1; 1.e.1; 3.a.1; 3.c.1; 3.c.2; 3.d.1; 3.d.2
- b. **DEFICIENCY:** NONE
- c. **AREAS REQUIRING CORRECTIVE ACTION:** NONE
- d. **NOT DEMONSTRATED:** NONE
- e. **PRIOR ARCAs - RESOLVED:** NONE
- f. **PRIOR ARCAs - UNRESOLVED:** NONE

2.2.15 Ocean Township EOC

- a. **MET:** 1.a.1; 1.c.1; 1.d.1; 1.e.1; 3.a.1; 3.c.1; 3.c.2; 3.d.1; 3.d.2
- b. **DEFICIENCY:** NONE
- c. **AREAS REQUIRING CORRECTIVE ACTION:** NONE
- d. **NOT DEMONSTRATED:** NONE
- e. **PRIOR ARCAs - RESOLVED:** NONE
- f. **PRIOR ARCAs - UNRESOLVED:** NONE

2.2.16 Stafford Township EOC

- a. **MET:** 1.a.1; 1.c.1; 1.d.1; 1.e.1; 3.a.1; 3.c.1; 3.c.2; 3.d.1; 3.d.2;
- b. **DEFICIENCY:** NONE
- c. **AREAS REQUIRING CORRECTIVE ACTION:** ONE

ISSUE: 43-09-5.a.3-A-02

ISSUE: The time needed to complete the Alert and Notification route was 64 minutes. This exceeds the total time allotted of 45 minutes from time that it is realized that a siren has failed to sound to route completion.

CORRECTIVE ACTION DEMONSTRATED: On Nov. 16, 2009 the Stafford Township Police Department redemonstrated their ability to perform backup alert and notification of the public within 45 minutes from the detection of a siren failure of the primary alert and notification system.

Representatives from the Stafford Township Police Department provided a revised route map for siren 51 along with turn by turn directions and a copy of the route alerting procedure. Two Stafford Township Police Officers received a radiological briefing and the Township Route Alerting Team Procedures were reviewed prior to running the route. The briefing took three minutes to complete.

At the conclusion of the briefing the two person Police Officer Route Alerting Team began the route alert. Their police vehicle was equipped with lights, sirens and a public address system. During the demonstration, announcement of the two - sentence alert message and police siren activation were simulated. The vehicle traveled at approximately 15 mph or less while broadcasting the alert message. In unpopulated areas the vehicle resumed normal speed.

The total elapsed time from the notification of a siren failure to the conclusion of the route alert was 30 minutes. This redemonstration resolves ARCA 43-09-5.a.3-A02 from the October 6, 2009 Oyster Creek exercise.

- d. **NOT DEMONSTRATED:** NONE
- e. **PRIOR ARCAs - RESOLVED:** NONE
- f. **PRIOR ARCAs - UNRESOLVED:** NONE

2.2.17 Toms River Township EOC

- a. **MET:** 1.a.1; 1.c.1; 1.d.1; 1.e.1; 3.a.1; 3.c.1; 3.c.2; 3.d.1; 3.d.2
- b. **DEFICIENCY:** NONE
- c. **AREAS REQUIRING CORRECTIVE ACTION:** NONE
- d. **NOT DEMONSTRATED:** NONE
- e. **PRIOR ARCAs - RESOLVED:** NONE
- f. **PRIOR ARCAs - UNRESOLVED:** NONE

3. SUPPORT JURISDICTIONS

3.1 Ocean County Congregate Care Center (Veterans Memorial Elementary School June 22, 2009)

- a. MET: NONE
- b. DEFICIENCY: NONE
- c. AREAS REQUIRING CORRECTIVE ACTION: NONE
- d. NOT DEMONSTRATED: NONE
- e. PRIOR ARCAs - RESOLVED: NONE
- f. PRIOR ARCAs - UNRESOLVED: NONE

4. PRIVATE ORGANIZATIONS

4.1 Ocean County – EAS Radio Station WRAT

- a. MET: 1.d.1; 5.a.1; 5.b.1
- b. DEFICIENCY: NONE
- c. AREAS REQUIRING CORRECTIVE ACTION: NONE
- d. NOT DEMONSTRATED: NONE
- e. PRIOR ARCAs - RESOLVED: NONE
- f. PRIOR ARCAs - UNRESOLVED: NONE

APPENDIX 1: ACRONYMS AND ABBREVIATIONS

The following is a list of the acronyms and abbreviations, which were used in this report.

AOG	Augmented Off-Gas
ARCA	Area Requiring Corrective Action
ARM	Area Radiation Monitors
ATWS	Anticipated Transient Without Scram
A&N	Alert and Notification
CFM	Cubic Feet per Minute
CFR	Code of Federal Regulations
CHRRMS	Containment High Range Radiation Monitoring System
DHS	U.S. Department of Homeland Security
DOT	U.S. Department of Transportation
DRD	Direct-Reading Dosimeter
EAS	Emergency Alert System
EBS	Emergency Broadcast System
ECL	Emergency Classification Level
EOC	Emergency Operations Center
FOF	Emergency Operations Facility
EMC	Emergency Management Coordinator
EMITS	Emergency Management Information Tracking System
EMRV	Electro-Motive Relief Valve
ENC	Emergency News Center
EPA	U.S. Environmental Protection Agency
EPR	Electronic Pressure Regulator
EPZ	Emergency Planning Zone
ERF	Emergency Response Facility
ERO	Emergency Response Organization
ERPA	Emergency Response Planning Area
FCP	Forward Command Post
FEMA	Federal Emergency Management Agency
FMT	Field Monitoring Team
GE	General Emergency

ICF	ICF International, Inc.
JIC	Joint Information Center
KI	Potassium Iodide
LED	Light Emitting Diode
mR	milliRoentgen(s)
MS	Medical Services
MSIV	Mainstream Isolation Valves
NAWC	Lakehurst Naval Air Warfare Center
NJ	New Jersey
NJBNE	New Jersey Bureau of Nuclear Engineering
NJDEP	New Jersey Department of Environmental Protection
NJDHSS	New Jersey Department of Health and Senior Services
NJOEM	New Jersey Office of Emergency Management
NRC	Nuclear Regulatory Commission
NUREG-0654	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," November 1980
OCEOC	Ocean County Emergency Operations Center
OCMEOCs	Ocean County Municipality Emergency Operations Centers
OCNGS	Oyster Creek Nuclear Generating Station
OCOEM	Ocean County Office of Emergency Management
OEM	Office of Emergency Management
ORO	Offsite Response Organization
PAD	Protective Action Decision
PAG	Protective Action Guide
PAR	Protective Action Recommendation
PIO	Public Information Officer
R	Roentgen
RAC	Regional Assistance Committee
REP	Radiological Emergency Preparedness
RERP	Radiological Emergency Response Plan
R/hr	Roentgen(s) per hour
RO	Radiological Officer

SAE	Site Area Emergency
SBOEM	Ship Bottom Office of Emergency Management
SEOC	State Emergency Operations Center
SFA	State Field Activities
SGTS	Standby Gas Treatment System
SM	Shift Manger
SNB	Special News Broadcast
SOP	Standard Operating Procedure
TL	Team Leader
TLD	Thermoluminescent Dosimeter
WRAT	Ocean County EAS Radio Station

APPENDIX 2: EXERCISE EVALUATORS AND TEAM LEADERS

The following is a list of the personnel who evaluated the Plume Phase of the Oyster Creek Generating Station exercise on September 13, 2006 and the out of sequence drills. Evaluator Team Leaders are indicated by the letters “(TL)” after their names. The organization which each evaluator represents is indicated by the following abbreviations:

DHS	Department of Homeland Security
EPA	Environmental Protection Agency
ICF	ICF International

<u>EVALUATION SITE</u>	<u>EVALUATOR</u>	<u>ORGANIZATION</u>
Exercise Oversight	Rebecca Thomson	DHS/FEMA
STATE OF NEW JERSEY		
SEOC	Brian Hasemann, TL	DHS/FEMA
SEOC	Daryl Thome	ICF
SEOC	Michelle Sturman	DHS/FEMA
SEOC	Mabel Santiago	DHS/FEMA
EOF	Joe Keller, TL	ICF
EOF	Warren DeTemple	DHS/FEMA
Forward Command Post	Jeanette Eng	EPA
Forward Command Post	Sara Gelves	DHS/FEMA
JIC	Nancy Johnson, TL	ICF
JIC	Sonia Eischen	ICF
EAS Station	Russell Fox	DHS/FEMA
OCEAN COUNTY		
EOC	Bill Cullen, TL	DHS/FEMA
EOC	Linda Gee	DHS/FEMA
EOC	Michael DeBonis	EPA
EOC	Laura Forrest	DHS/FEMA
Radiological Field Monitoring Team A	Korky Dulgerian	DHS/FEMA
Radiological Field Monitoring Team B	Ronald Bonner	ICF
Emergency Worker Decontamination Center*	Korky Dulgerian	DHS/FEMA
Emergency Worker Decontamination Center*	Brian Hasemann	DHS/FEMA
General Population Reception Center*	Korky Dulgerian	DHS/FEMA
General Population Reception Center*	Patricia Mason	DHS/FEMA
General Population Reception Center*	Ronald Biernacki	ICF
General Population Reception Center*	Deborah Blunt	ICF

General Population Evacuation*	Brian Hasemann	DHS/FEMA
School Evacuation*	Brian Hasemann	DHS/FEMA
School Interviews*	Brian Hasemann	DHS/FEMA
Traffic and Access Control Point*	Brian Hasemann	DHS/FEMA
Access Control Point *	Brian Hasemann	DHS/FEMA
Medical Drill*	Korky Dulgerian	DHS/FEMA
Medical Drill*	Brian Hasemann	DHS/FEMA

MUNICIPALITIES

Barneгат Light Borough EOC	Kevin Reed, TL	DHS/FEMA
Barneгат Township	Patricia Mason	DHS/FEMA
Beachwood Borough EOC	Chris Cammarata	DHS/FEMA
Berkeley Township EOC	Mark Dalton	ICF
Toms River Township	Clark Duffy	ICF
Harvey Cedars EOC	Dave Petta	ICF
Island Heights Borough EOC	Roy Smith, TL	ICF
Lacey Township EOC	Gary Goldberg	ICF
Long Beach Township EOC	Tracey Green	ICF
Ocean Gate Borough EOC	Miriam Weston	DHS/FEMA
Ocean Township EOC	Glenn Kinnear	ICF
Pine Beach Borough EOC	Thomas Gahan	ICF
Ship Bottom Borough EOC	Sam Nelson, TL	ICF
Seaside Park Borough EOC	Richard McPeak	ICF
South Toms River Borough EOC	Michael Meshenberg	ICF
Stafford Township EOC	Wes Ryals	ICF
Surf City EOC	Todd Sniffin	ICF

* Indicates an out of sequence drill or demonstration.

APPENDIX 3: EXERCISE OBJECTIVES AND EXTENT-OF-PLAY AGREEMENT

This appendix lists the exercise objectives and the extent-of-play agreement, which were scheduled for demonstration in the Oyster Creek Generating Station exercise on September 18, 2007.

The exercise evaluation criteria, contained in the FEMA Interim REP Program Manual, August 2002, represent the application of the planning standards and evaluation criteria of NUREG-0654/FEMA-REP-1, Rev. 1, "Criteria for the Preparation and Evaluation of Radiological Emergency Response Plans and Preparedness in Support of Nuclear Power Plants," November 1980 to an emergency response exercise.

Because the exercise evaluation criteria are intended for use at all nuclear power plant sites, and because of variations among offsite plans and procedures, an extent-of-play agreement is prepared by the State and approved by FEMA to provide evaluators with guidance on expected actual demonstration of the objectives. The following extent-of-play agreement was approved by FEMA Region II on Sept. 28, 2009.

OYSTER CREEK EXTENT OF PLAY
GROUND RULES

REAL LIFE EMERGENCIES TAKE PRIORITY OVER EXERCISE PLAY.

- There will not be injects as elements of the scenario.
- A control cell will inject public inquiry messages at the State EOC.
- A State Controller will inject radiological data for field radiological activities (i.e. Field Monitoring Teams, Reception Centers, EWDC's).
- According to REP Program Strategic Review Initiative 1.5 and the Interim Radiological Emergency Preparedness (REP) Program Manual Section III. I: "During tabletop exercises, drills, and other demonstrations conducted out-of-sequence from an integrated exercise, if DHS and the offsite response organizations (ORO) agree, the DHS Evaluator may have the participants re-demonstrate an activity that is determined to be not satisfactorily demonstrated. Immediate correction of issues in an integrated exercise is authorized only if it would not be disruptive and interrupt the flow of the exercise and affect other Evaluation Areas."

EXTENT OF PLAY

EVALUATION AREA 1: EMERGENCY OPERATIONS MANAGEMENT

Sub-element 1.a - Mobilization

Criterion 1.a.1: OROs use effective procedures to alert, notify, and mobilize emergency personnel and activate facilities in a timely manner. (NUREG-0654, A.4, D.3, 4, E.1, 2, H.4)

EXTENT OF PLAY AGREEMENT:

BNE/EOF

The BNE will pre-position Staff in the area and will arrive at the EOF approximately 60 minutes after notification by the State OEM of an ALERT or greater ECL notification.

BNE/FCP

The BNE will pre-position Staff in the area and will arrive at the FCP approximately 60 minutes after the declaration of an ALERT or greater ECL notification.

BNE/FMT

One (1) State and (1) county FMT will pre-demonstrate instrument checkout and field air-sampling procedures during the afternoon of October 6, 2009. The two field teams will remain in the area until FCP staff arrives and will not be required to perform a second instrument checkout.

JIC

State JIC Staff will be pre-positioned and arrive approximately 60 minutes after notification of an ALERT or greater ECL notification.

EVALUATION AREA 1: EMERGENCY OPERATIONS MANAGEMENT

Sub-element 1.b - Facilities

Criterion 1.b.1: Facilities are sufficient to support the emergency response.
(NUREG-0654, H)

EXTENT OF PLAY AGREEMENT:

Not evaluated for this exercise.

EVALUATION AREA 1: EMERGENCY OPERATIONS MANAGEMENT

Sub-element 1.c - Direction and Control

Criterion 1.c.1: Key personnel with leadership roles for the ORO provide direction and control to that part of the overall response effort for which they are responsible. (NUREG 0654, A.1.d; A.2.a, b)

EXTENT OF PLAY AGREEMENT:

There are no modifications from the NJRERP.

EVALUATION AREA 1: EMERGENCY OPERATIONS MANAGEMENT

Sub-element 1.d - Communications Equipment

Criterion 1.d.1: At least two communications systems are available, at least one operates properly, and communication links are established and maintained with appropriate locations. Communications capabilities are managed in support of emergency operations. (NUREG-0654, F.1.2)

EXTENT OF PLAY AGREEMENT:

County/municipal EOCs

The use of RACES, County 800 MHz, or County high band radio may serve as the backup to commercial telephone will be demonstrated between the Ocean County EOC and the risk municipal EOCs.

EVALUATION AREA 1: EMERGENCY OPERATIONS MANAGEMENT

Sub-element 1.e - Equipment and Supplies to Support Operations

Criterion 1.e.1: Equipment, maps, displays, dosimetry, potassium iodide (KI), and other supplies are sufficient to support emergency operations. (NUREG 0654, H.7, 10; J.10.a, b, e, J.11; K.3.a)

EXTENT OF PLAY AGREEMENT:

In the NJ RERP, Accident Assessment is a State responsibility therefore; radiological monitoring points and population by evacuation area is not displayed on maps at the county or municipal EOCs. The data on evacuation times and populations from the Evacuation Times estimate Study and other sources are condensed into a single document entitled DEMSTAT's. The DEMSTAT's are used by the State to determine the affected population, ERPA's, and evacuation time estimates.

The NJ OEM Calibration Laboratory calibrates field team equipment. The State RERP Plan requires annual calibration of this equipment. Therefore, the calibration sticker for this equipment shows a calibration due date which reflects the annual calibration cycle. The instruments are considered calibrated as long as the current date is within one year of the calibration date.

No equipment (i.e. barriers, traffic cones, signs, etc.) may be deployed to the field.

Check sources for field monitoring instruments may be shared among state and county FMTs at the FCP prior to being dispatched.

The BNE intends to remediate issue number 02-08-1.e.1-A-02 during the exercise through procedure revisions and training.

EVALUATION AREA 2: PROTECTIVE ACTION DECISION-MAKING

Sub-element 2.a. Emergency Worker Exposure Control

Criterion 2.a.1: OROs use a decision making process, considering relevant factors and appropriate coordination, to insure that an exposure control system, including the use of KI, is in place for emergency workers including provisions to authorize radiation exposure in excess of administrative limits or protective action guides. (NUREG-0654, J.10.e, f; K.4)

EXTENT OF PLAY AGREEMENT:

There are no modifications from the NJRERP.

EVALUATION AREA 2: PROTECTIVE ACTION DECISION-MAKING

Sub-element 2.b. Radiological Assessment and Protective Action Recommendations and Decisions for the Plume Phase of the Emergency

Criterion 2.b.1: Appropriate protective action recommendations are based on available information on plant conditions, field monitoring data, and licensee and ORO dose projections, as well as knowledge of on-site and off-site environmental conditions. (NUREG-0654, I.8, 10, and Supplement 3)

EXTENT OF PLAY AGREEMENT:

There are no modifications from the NJRERP.

The BNE intends to remediate issue number 02-08-1.e.1-A-02 during the exercise through procedure revisions and training.

EVALUATION AREA 2: PROTECTIVE ACTION DECISION-MAKING

Sub-element 2.b. Radiological Assessment and Protective Action Recommendations and Decisions for the Plume Phase of the Emergency

Criterion 2.b.2: A decision-making process involving consideration of the appropriate factors and necessary coordination is used to make protective action decisions (PADs) for the general public (including the recommendation for the use of KI, if ORO policy). (NUREG-0654, J.9, 10.f, m).

EXTENT OF PLAY AGREEMENT:

There are no modifications from the NJRERP.

EVALUATION AREA 2: PROTECTIVE ACTION DECISION-MAKING

Sub-element 2.c. - Protective Action Decisions Consideration for the Protection of Special Populations

Criterion 2.c.1: Protective action decisions are made as appropriate, for special population groups. (NUREG-0654, J.9, J.10.d, e)

EXTENT OF PLAY AGREEMENT:

There are no modifications from the NJRERP

EVALUATION AREA 2: PROTECTIVE ACTION DECISION-MAKING

Sub-element 2.d - Radiological Assessment and Decision Making for the Ingestion Exposure Pathway

Criterion 2.d.1: Radiological consequences for the ingestion pathway are assessed and appropriate protective action decisions are made based on the ORO planning criteria. (NUREG-0654, J.9, J.11)

EXTENT OF PLAY AGREEMENT:

Not evaluated for this exercise.

EVALUATION AREA 2: PROTECTIVE ACTION DECISION-MAKING

Sub-element 2.e. - Radiological Assessment and Decision-Making Concerning Relocation, Re-entry, and Return

Criterion 2.e.1: Timely relocation, re-entry, and return decisions are made and coordinated as appropriate, based on assessments of the radiological conditions and criteria in the ORO_s plans and/or procedures. (NUREG-0654, I.1; J.9; M.1)

EXTENT OF PLAY AGREEMENT:

Not evaluated for this exercise.

EVALUATION AREA 3: PROTECTIVE ACTION IMPLEMENTATION

Sub-element 3.a - Implementation of Emergency Worker Exposure Control

Criterion 3.a.1: The OROs issue appropriate dosimetry and procedures, and manage radiological exposure to emergency workers in accordance with the plans and procedures. Emergency workers periodically and at the end of each mission read their dosimeters and record the readings on the appropriate exposure record or chart. (NUREG-0654, K.3a, b)

EXTENT OF PLAY AGREEMENT:

FMTs will not be required to dress out during the plume phase (protective clothing will be available for inspection by the evaluator). FMTs will don a single pair of gloves and following the first demonstration of contamination control verbalize successive changes. Exposure control and contamination control functions will be addressed through an interview with the field teams

One emergency worker exposure control kit will be utilized in the County EOC and in each municipal EOC. No TLDs will be distributed during this exercise, but their location and recording methodology will be explained to the evaluator. County and municipal coordinators will provide and discuss the SOP on TLD distribution and record keeping with the evaluator. EMCs who distribute more than the minimum requirement of emergency worker kits will not be penalized.

Maximum authorized mission exposure limits may be referred to as mission dose, dose limit, or turn back value. The New Jersey limit is 1.25 R. Direct-reading dosimeters (DRDs) in the emergency worker exposure control kits may contain electronic self-reading dosimeters or 0-20 R and 0-200 mR dosimeters. Inspection dates (including leak test information) for this instrumentation is on file at the NJOEM Radiation Laboratory and will be visually inspected and evaluated by FEMA staff prior to the exercise. KI will not be distributed. It is stored at the State OEM, BNE-FCPs and at the County OEM's until an actual incident.

EVALUATION AREA 3: PROTECTIVE ACTION IMPLEMENTATION

Sub-element 3.b - Implementation of KI Decision

Criterion 3.b.1: KI and appropriate instructions are available should a decision to recommend use of KI be made. Appropriate record keeping of the administration of KI by emergency workers and institutionalized individuals is maintained.

EXTENT OF PLAY AGREEMENT:

There are no modifications from the NJ RERP.

EVALUATION AREA 3: PROTECTIVE ACTION IMPLEMENTATION

Sub-element 3.c - Implementation of Protective Actions for Special Populations

Criterion 3.c.1: Protective action decisions are implemented for special populations other than schools within the areas subject to protective actions. (NUREG-0654, J.10.c, d, g).

EXTENT OF PLAY AGREEMENT:

Evacuation of Transportation Dependent Population

Evacuation of Transportation Dependent Population on Route 16 demonstrated out of sequence, on July 29, 2009.

Notification of Hearing Impaired

The notification of a hearing impaired individual will be demonstrated out of sequence, in Ocean Township on October 6, 2009.

The list of hearing impaired individuals will be available for inspection at each municipal EOC. The list will be reviewed but not retained by the federal evaluator.

There will be no actual notification of hearing impaired individuals.

Evacuation of Non- Institutionalized Mobility Impaired Individuals

The notification of non-institutionalized mobility impaired individual will be demonstrated out of sequence, in Lacey Township on October 6, 2009.

The list of non-institutionalized mobility impaired individuals will be available for inspection at each municipal EOC. The list will be reviewed but not retained by the federal evaluator. There will be no actual notification.

EVALUATION AREA 3: PROTECTIVE ACTION IMPLEMENTATION

Sub-element 3.c - Implementation of Protective Actions for Special Populations

Criterion 3.c.2: OROs/School officials implement protective actions for schools. (NUREG-0654, J.10.c, d, g).

EVACUATION OF SCHOOL POPULATIONS

EXTENT OF PLAY AGREEMENT:

An out of Sequence demonstration of an evacuation bus route for Lacey School District, Mill Pond School was conducted on July 28, 2009

SCHOOL INTERVIEWS

EXTENT OF PLAY AGREEMENT:

Interviews for Ocean County were conducted during by DHS and a State Controller with school superintendents and principals on July 27 & 28, 2009.

School/District

Monsignor Donovan High School
St Joseph's Elementary School
Ambassador Christiansen Academy
Island Heights School District
Seaside Park School District
Central Regional School District

Lighthouse Christian Academy
All Saints Regional School
Ocean County Vo-Tech Marine
Ocean Gate School District

EVALUATION AREA 3: PROTECTIVE ACTION IMPLEMENTATION

Sub-element 3.d. - Implementation of Traffic and Access Control

Criterion 3.d.1: Appropriate traffic and access control is established. Accurate instructions are provided to traffic and access control personnel. (NUREG-0654, J.10.g, j)

EXTENT OF PLAY AGREEMENT:

Traffic and Access Control Posts (TCP's and ACP's)

The water borne Access Control Point and a land Access Control Point demonstrated out of sequence on August 10, 2009 and July 29, 2009 respectively.

The State Police Field Operation Bureau personnel discussed how to activate ACPs in the field in mutually agreed upon locations.

The personnel from the Ocean County Sheriffs Department and the Road Department will discuss how to activate TCP's in the field in mutually agreed upon locations.

The activation of a Traffic Control Post demonstrated out of sequence on August 5, 2009 .

The participants demonstrated their ability to locate their assigned posts through an interview with a federal evaluator.

There were no vehicles stopped at the demonstration of Access Control or Traffic Control.

EVALUATION AREA 3: PROTECTIVE ACTION IMPLEMENTATION

Sub-element 3.d. - Impediments to Evacuation

Criterion 3.d.2: Impediments to evacuation are identified and resolved.
(NUREG-0654, J.10.k)

EXTENT OF PLAY AGREEMENT:

Impediments to evacuation

The Ocean County Sheriffs Department and Road Department at the County EOC will discuss with the Federal evaluator how impediments to evacuation would be overcome.

EVALUATION AREA 3: PROTECTIVE ACTION IMPLEMENTATION

Sub-element 3.c - Implementation of Ingestion Pathway Decisions

Criterion 3.e.1: The ORO demonstrates the availability appropriate use of adequate information regarding water, food, supplies, milk, and agricultural production within the ingestion pathway emergency planning zone for implementation of protective actions. (NUREG-0654, J.9, 11).

EXTENT OF PLAY AGREEMENT:

Not evaluated for this exercise.

EVALUATION AREA 3: PROTECTIVE ACTION IMPLEMENTATION

Sub-element 3.e - Implementation of Ingestion Pathway Decisions

Criterion 3.e.2: Appropriate measures, strategies, and pre-printed instructional material are developed for implementing protective action decisions for contaminated water, food products, milk, and agricultural production. (NUREG-0654, J.9, 11).

EXTENT OF PLAY AGREEMENT:

Not evaluated for this exercise.

EVALUATION AREA 3: PROTECTIVE ACTION IMPLEMENTATION

Sub-element 3.f. - Implementation of Relocation, Re-entry, and Return Decisions

Criterion 3.f.1: Decisions regarding controlled re-entry of emergency workers and relocation and return of public are coordinated with appropriate organizations and implemented. (NUREG-0654, M.1, 3)

EXTENT OF PLAY AGREEMENT:

Not evaluated for this exercise.

EVALUATION AREA 4: FIELD MEASUREMENTS AND ANALYSIS

Sub-element 4.a.1 - Plume Phase Field Measurements and Analysis

Criterion 4.a.1: The field teams are equipped to perform field measurements of direct radiation exposure (cloud and ground shine) and to sample airborne radioiodine and particulates. (NUREG-0654, H.10; I.7, 8, 9)

EXTENT OF PLAY AGREEMENT:

FMTs

One (1) State and (1) county FMT will pre-demonstrate instrument checkout and field air-sampling procedures during the afternoon of October 6, 2009. The two field teams will remain in the area until FCP staff arrives and will not be required to perform a second instrument checkout.

EVALUATION AREA 4: FIELD MEASUREMENTS AND ANALYSIS

Sub-element 4.a. - Plume Phase Field Measurements and Analysis

Criterion 4.a.2: Field teams are managed to obtain sufficient information to help characterize the release and to control radiation exposure. (NUREG-0654, H.12; I.8, 11; J.10.a)

EXTENT OF PLAY AGREEMENT:

There are no modifications from the NJRERP.

The BNE intends to remediate issue number 02-08-1.e.1-A-02 during the exercise through procedure revisions and training.

EVALUATION AREA 4: FIELD MEASUREMENTS AND ANALYSIS

Sub-element 4.a. - Plume Phase Field Measurements and Analysis

Criterion 4.a.3: Ambient radiation measurements are made and recorded at appropriate locations, and radioiodine and particulate samples are collected. Teams will move to an appropriate low background location to determine whether any significant (as specified in the plan and/or procedures) amount of radioactivity has been collected on the sampling media. (NUREG-0654, I.9).

EXTENT OF PLAY AGREEMENT:

One (1) state and (1) county FMT will pre-demonstrate instrument checkout and field air sampling and counting procedures during the afternoon of October 6, 2009. If a FMT is not required to perform an additional air sample and count during exercise play, the pre-demonstration will serve as the evaluation demonstration for this criterion.

Chain of Custody Forms will be completed during the exercise by FMTs. However, the transfer of samples to the laboratory will not be demonstrated. FCP and FMT leads will discuss procedure for transporting samples during the exercise.

EVALUATION AREA 4: FIELD MEASUREMENTS AND ANALYSIS

Sub-element 4.b - Post Plume Phase Field Measurements and Sampling

Criterion 4.b.1: The field teams demonstrate the capability to make appropriate measurements and to collect appropriate samples (e.g., food crops, milk, vegetation, and soil) to support adequate assessments and protective action decision-making. (NUREG-0654, I.8; J.11)

EXTENT OF PLAY AGREEMENT:

Not evaluated for this exercise.

EVALUATION AREA 4: FIELD MEASUREMENTS AND ANALYSIS

Sub-element 4.c - Laboratory Operations

Criterion 4.c.1: The laboratory is capable of performing required radiological analysis to support protective action decisions. (NUREG-0654, C.; J.11)

EXTENT OF PLAY AGREEMENT:

Not evaluated for this exercise.

EVALUATION AREA 5: EMERGENCY NOTIFICATION & PUBLIC INFORMATION

Sub-element 5.a - Activation of the Prompt Alert and Notification System

Criterion 5.a.1: Activities associated with the primary alerting and notification of the public are completed in a timely manner following the initial decision by authorized offsite emergency officials to notify the public of an emergency situation. The initial instructional message to the public must include as a minimum the elements required by current DHS REP guidance. (10 CFR Part 50, Appendix E.IV.D & NUREG-0654, E.5, 6, 7)

EXTENT OF PLAY AGREEMENT:

The initial EAS message will be initiated by the NJOEM at the State EOC with a simulated broadcast of the message using the SAGE/ENDEC encoder. The second EAS message will be faxed to WRAT-FM for simulated broadcast. There will be no actual siren sounding and no broadcasting of EAS messages. The Oyster Creek siren system was tested on June 2, 2009 results provided.

EVALUATION AREA 5: EMERGENCY NOTIFICATION & PUBLIC INFORMATION

Sub-element 5.a - Activation of the Prompt Alert and Notification System

Criterion 5.a.2: RESERVED

EVALUATION AREA 5: EMERGENCY NOTIFICATION & PUBLIC INFORMATION

Sub-element 5.a - Activation of the Prompt Alert and Notification System

Criterion 5.a.3: Activities associated with DHS approved exception areas (where applicable) are completed within 45 minutes following the initial decision by authorized offsite emergency officials to notify the public of an emergency situation. Backup alert and notification of the public is completed within 45 minutes following the detection by the ORO of a failure of the primary alert and notification system. (NUREG-0654, 3B.2.c)

EXTENT OF PLAY AGREEMENT:

Backup route alerting will be demonstrated out of sequence, in Stafford Township on October 6, 2009.

EVALUATION AREA 5: EMERGENCY NOTIFICATION & PUBLIC INFORMATION

Sub-element 5.b - Emergency Information and Instructions for the Public and the Media

Criterion 5.b.1: OROs provide accurate emergency information and instructions to the public and the news media in a timely manner. (NUREG-0654, E.5, 7; G.3.a, G.4.c).

EXTENT OF PLAY AGREEMENT:

Public Instruction and Emergency Information

EAS Follow-up News Releases are provided to Primary EAS Station and the media at the JIC.

Public Inquiry

The State OEM will prepare press releases for two (2) simulated trends for disclosure at press conferences.

EVALUATION AREA 6: SUPPORT OPERATION/FACILITIES

Sub-element 6.a - Monitoring and Decontamination of Evacuees and Emergency Workers, and Registration of Evacuees

Criterion 6.a.1: The reception center/emergency worker facility has appropriate space, adequate resources, and trained personnel to provide monitoring, decontamination, and registration of evacuees and/or emergency workers. (NUREG-0654, J.10.h; J.12;K.5.a)

EXTENT OF PLAY AGREEMENT:

Reception Centers were demonstrated out of sequence at Brick Township High School on July 16, 2008 and Pinelands Regional High School on July 16, 2009.

Emergency Worker Decontamination Centers were demonstrated out of sequence at Lanoka Harbor Fire Department on May 15, 2008 and Seaside Heights Fire Department on April 8, 2009.

At least 1/3 of the required monitors will be present and evacuees will be monitored. Staff will be provided to act as evacuees.

Initial personnel monitoring staff will be demonstrated as tabulated below. Six staff will act as evacuees.

Two radiation monitoring staff will be present and demonstrate, one (1) for male decontamination and one (1) for female decontamination. They will process one person each.

Both vehicle monitoring posts will be staffed with a minimum of two (2) emergency workers.

Two vehicles will be demonstrated for monitoring and decontamination, one (1) clean vehicle and one (1) contaminated.

There will be only a representative (small) sample of supplies available at the facilities.

Decontamination techniques will be simulated.

Reception Center floors will not be covered with paper/plastic during this demonstration. However, it will be available for inspection.

Distribution of Potassium Iodide to the general public will be demonstrated by the County Department of Health.

EVALUATION AREA 6: SUPPORT OPERATION/FACILITIES

Sub-element 6.b - Monitoring and Decontamination of Emergency Worker Equipment

Criterion 6.b.1: The facility/ORO has adequate procedures and resources for the accomplishment of monitoring and decontamination of emergency worker equipment including vehicles. (NUREG-0654, K.5.b).

EXTENT OF PLAY AGREEMENT:

Emergency Worker Decontamination Centers were demonstrated out of sequence at Lanoka Harbor Fire Department on May 15, 2008 and Seaside Heights Fire Department on April 8, 2009.

Two radiation monitoring staff were present and demonstrate, one (1) for male decontamination and one (1) for female decontamination. They will process one person each.

Both vehicle monitoring posts were staffed with a minimum of two (2) emergency workers.

Two vehicles were demonstrated for monitoring and decontamination, one (1) clean vehicle and one (1) contaminated.

There was a representative (small) sample of supplies available at the facility.

Decontamination techniques will be simulated.

EWDC floors were not covered with paper/plastic during this demonstration. However, it will be available for inspection.

EVALUATION AREA 6: SUPPORT OPERATION/FACILITIES

Sub-element 6.c - Temporary Care of Evacuees

Criterion 6.c.1: Managers of congregate care facilities demonstrate that the centers have resources to provide services and accommodations consistent with American Red Cross planning guidelines (found in MASS CARE-Preparedness Operations ARC 3031). Managers demonstrate the procedures to assure that evacuees have been monitored for contamination and have been decontaminated as appropriate prior to entering congregate care facilities. (NUREG-0654, J.10.h, J.12)

EXTENT OF PLAY AGREEMENT:

This Evaluation Area criteria was evaluated on June 22, 2009 in an out-of-sequence demonstration at Veterans Memorial Elementary School, Brick Township.

EVALUATION AREA 6: SUPPORT OPERATION/FACILITIES

Sub-element 6.d - Transportation and Treatment of Contaminated Injured Individuals

Criterion 6.d.1: The facility/ORO has appropriate space, adequate resources, and trained personnel to provide transport, monitoring, decontamination, and medical services to contaminated injured individuals. (NUREG-0654, F.2; H.10; K.5a, b; L.1, 4)

EXTENT OF PLAY AGREEMENT:

To Be Demonstrated on October, 27, 2009

APPENDIX 4: EXERCISE SCENARIO SYNOPSIS

This appendix contains a summary of the simulated sequence of events – Exercise Scenario - that was used as the basis for invoking emergency response actions by OROs in the Oyster Creek Generating Station exercise on October 6, 2009.

BIENNIAL EXERCISE TIMELINE

SCENARIO TIME	CLOCK TIME	MAJOR EVENT
-180	13:00	Setup simulator, swap & test communications and confirm the transmittal of exercise data from the simulator to the TSC, EOF, and OSC. TEST and CONFIRM ALL telephones, the FAX and copier in the simulator are operable. Synchronize the Simulator Computer Time, Facility Clocks and Plant Process Computer clock times. Confirm Virtual Plume scenario is loaded for FMT Controller use with a scenario starting time of 4:00 PM.
- 120	14:00	Conduct Exercise Lead Facility Controllers Teleconference Readiness Check-in. Communicate the Official Time and synchronize all timepieces and clocks.
-090	14:30	Conduct Exercise Controller / Evaluator Team Pre-Job Briefings IAW HU-AA-1211 in ALL Exercise Facilities at 14:30: Simulator, TSC, OSC, EOF, ENC
-060	15:00	Control Room Operations Crew Briefing Begins
-015	15:45	Operations Crew Completes Walkdown and Assumes the Shift in the Simulator
-010	15:50	Just-in-Time "Ready to Commence" Check-in - Exercise Simulator Control Team
- 001	15:59	Deliver Exercise Commencement Announcement over plant PA system
000	16:00	Commence Exercise with initial conditions established
005	16:05	Initiate Vehicle Crash Event warranting the declaration of an ALERT: HA5 – Natural and Destructive Phenomena Affecting the Plant VITAL AREA. 3. Vehicle crash within the PROTECTED AREA boundary resulting in VISIBLE DAMAGE to any plant structures or equipment contained in any Table H2 area or Control Room indication of degraded performance of those systems. (NOTE: The Initiating Condition for HA5 (ALERT) is upon the receipt of a message from Security that a truck has crashed into the Emergency Diesel Building. This message is scheduled to be received and acknowledged by the Control Room at 16:07)
006	16:06	Plant Reactor Operator dispatches a Plant Operator to investigate #2 EDG alarms.
007	16:07	Security Supervisor calls the (simulated) Main Control Room and reports the following <i>"This is the Security Supervisor in the CAS. I just received a report from a Security Officer that a dump truck crashed into the North side of the Emergency Diesel Generator Building. I have one officer responding to the scene."</i>
008	16:08	Plant Operator reports to the Plant Reactor Operator the following information from the scene of the truck crash: <i>"I am at the diesels. The back of a dump truck has crashed into the wall of the #2 Diesel Generator Vault. The wall has several long cracks and is buckled. There are several large pieces of the wall on the ground."</i>

SCENARIO TIME	CLOCK TIME	MAJOR EVENT
009	16:09	Security Supervisor calls the (simulated) Main Control Room to report the following, "There is no indication of a security event. The driver of the truck is out of the vehicle, he is being cooperative and he is not injured. The driver says he could not stop his truck."
010	16:10	Plant Operator reports to the Plant Reactor Operator the following information from the scene of the truck crash "I went inside the # 2 EDG vault. Several large pieces of the wall have fallen onto equipment. Four pieces of conduit have been torn off the wall and all the wires inside the four conduits are broken."
< 022	< 16:22	Shift Manager in the Simulator declares an ALERT < 16:22. Pagers are activated & ERO responds. No Release in Progress. Notifications are prepared / approved.
< 037	< 16:37	Alert Declaration Notification to State completed.
105	17:40	ERFs fully activated. C&C transfer to TSC and EOF complete.
120	18:00	Inadvertent initiation of "A" Isolation Condenser due to spurious opening of DC Condensate Return V-14-34 results in positive reactivity addition and APRM Hi-HI, RPS Setpoint exceeded but reactor fails to automatically shutdown.
120	18:00	Operators enter ABN-1 to scram the reactor, but no rod insertion occurs due to an electrical failure preventing the venting of the scram air header.
121	18:01	RPS Setpoint exceeded <u>without</u> Rx Scram; Auto Scram and Manual Scram and ARI are unsuccessful. Reactor power remains above 2%. The Main Turbine is still on line providing heat sink. (NOTE: The Initiating Condition for MS3 (SITE AREA EMERGENCY) exists upon the failure of Auto Scram, and upon placing the Reactor Mode Switch in "Shutdown", and upon depressing the Reactor Scram Pushbuttons, and the failure of ARI function to insert the control rods with Reactor Power 2% or above. This sequence of system failures is expected to exist by 18:01)
121	18:01	Operators enter EMG-3200.01B, RPV Control – with ATWS including the action of Bypassing MSIV LO-LO Level Isolation Interlocks per SP-16.
122	18:02	OSC – Operators dispatched to vent the scram air header per SP-21.
> 121 < 136	> 18:01 < 18:16	Station Emergency Director declares SITE AREA EMERGENCY based upon EAL MS3, Failure of Reactor Protection System.
~131	~18:11	The scram air header is vented and all but 10 control rods are inserted. The remaining rods can be inserted manually using CRD drive pressure.
< 151	< 18:31	State and Local Notifications are prepared, approved and completed by EOF. No Release In Progress.
165	18:45	Inboard MSIVs close on loss of nitrogen pneumatic pressure.

SCENARIO TIME	CLOCK TIME	MAJOR EVENT
170	18:50	Loss of all feed and condensate; pumps fail to restart after being removed during ATWS response.
180	19:00	Unisolable LOCA from "D" Recirc Loop; RPV Level drops to < -20" TAF before level is restored and maintained above TAF. It is postulated that fuel cladding failures occur when the core is uncovered. Containment High Range Radiation Monitor (CHRRMS) Levels rise to 1550 R/Hr over the next five minutes. NO Radioactive Release at this time.
190	19:10	Emergency Depressurization and Core Spray System injection alone is successful in restoring core submergence and core cooling.
< 204	< 19:24	TSC SED declares GENERAL EMERGENCY based on EAL FGI. (Fuel Clad Loss (1.c.1), RCS Loss (2.b.1 or 2.c.2) and PC Potential Loss (3.c.1)). Wind is from 200 degrees. PAR will be EVACUATE 0-2 miles full circle and 2-5 miles downwind in sectors N, NNE, & NE and SHELTER the remaining portion of the EPZ. KI is recommended.
< 219	< 19:39	EOF CED communicates PAR to Senior State Official.
255	20:15	Loss of Primary Containment into the Reactor Building from a penetration failure that is unisolable. DW Pressure rapidly lowers as RB ARMs ramp up rapidly to off scale high. Secondary Containment remains intact and a filtered, elevated and monitored radioactive release begins from the Main Stack.
260	20:20	Stack RAGEMS readings are rising. Release in Progress is recognized.
< 270	< 20:30	CED recognizes Loss of the Primary Containment Barrier and a Release in Progress, then determines, approves and delivers Revised PAR Upgrade: EVACUATE 0-5 miles full circle and 5-10 miles downwind in sectors N, NNE, & NE and SHELTER the remaining portion of the EPZ. KI is recommended.
360	22:00	Terminate Exercise

In-Plant Priorities / OSC Team Repairs:

- (1) EDG# 2 is damaged by falling concrete; Conduit repairs should be planned (Electrical)
- (2) Containment Spray System I Heat Exchangers drained and open for cleaning (Maintenance)
- (3) OSC Team dispatched to vent the scram air header (Operators)
- (4) OSC Team dispatched to close V-15-52 (Operators)
- (5) "B" & "C" Condensate Pumps trip and fail to restart due to an electrical fault in their breakers. (Electrical)
- (6) "A" Condensate Pump Trips. (Electrical)

APPENDIX 5: PLANNING ISSUES

This appendix contains the Planning Issues assessed and prior Planning Issues re-evaluated during the October 6, 2009 Oyster Creek Generating Station exercise. Planning Issues are issues identified in an exercise or drill that do not involve participant performance, but rather involve inadequacies in the plan or procedures. Planning Issues are required to be corrected through the revision and update of the appropriate State and local RERPs and/or procedures in accordance with the following schedule:

- Within 120 days of the date of the exercise/drill when the Planning Issue is directly related to protection of the public health and safety.
- During the annual plan review and update (reported in the Annual Letter of Certification) when the Planning Issue does not directly affect the public health and safety. However, when the date for the annual plan review and update is imminent and the responsible organization does not have sufficient time to make the necessary revisions in the plans and/or procedures, the revised portion of the plans and/or procedures should be submitted in the subsequent annual plan review and update and reported in the Annual Letter of Certification.

Any requirement for additional training of responders to radiological emergencies necessitated by the revision and update of the plans and/or procedures must be completed within the timeframes described above in order for the Planning Issue to be considered resolved.

STATE PLANS AND PROCEDURES

PLANNING ISSUE NO: 43-09-4.a.3-P-01

CONDITION: During both air sampling and counting activities, New Jersey State Field Monitoring Team A conducted an initial radiation survey and took open and closed window readings at both waist level and ground level. However, they did not conduct surveys during and after sampling. Although a Ludlum Model 3 with 44-6 open/closed window probe was placed outside the vehicle and could be used, Attachment 302-10 Rev 27, May 2009, does not require any additional readings to be taken.

POSSIBLE CAUSE: Procedure SOP-302, Off-Site Radiological Field Monitoring and Sampling, Attachment 302-10 Rev 27, May 2009, only requires an initial radiation survey.

REFERENCE: NUREG-0654; Criterion 4.a.2; Procedure SOP-302, Off-Site Radiological Field Monitoring and Sampling, Attachment 302-10 Rev 27, May 2009,

EFFECT: During both air sampling and counting activities, the plume position could shift and adversely affect sample results, but the field monitoring team might not know if radiological monitoring is not conducted.

RECOMMENDATION: Revise Attachment 302-10 Rev 27, May 2009, to require radiological monitoring during and after both air sampling and sample counting.

BOROUGH OF SOUTH TOMS RIVER PLANS AND PROCEDURES

PLANNING ISSUE NO: 43-09-3.c.1-P-02

CONDITION: Inconsistent Police and EMS SOPs for hearing impaired notification. In South Toms River Borough, EMS and the Police Department share responsibilities for notifying the hearing impaired of an emergency. The Police SOP indicates that a police officer “and/or first responder will be dispatched with a sign stating instructions of the problems and ask if assistance is needed.” The EMS SOP lists a range of notification means – public address systems, public media, radio, personal contact, and categories of special needs – transient, hearing impaired, and resident population, but does not specify who is notified by what means. (It should be noted that there currently are no hearing impaired residents of the Borough, but there have been in the past.)

POSSIBLE CAUSE: Inconsistent SOPs.

RECOMMENDATION: The Borough should determine how each segment of the population requiring special notification is to be notified, and by whom, and modify all appropriate plans and procedures accordingly.

REFERENCE: J.10.c,d,g

EFFECT: Some hearing impaired residents might not have been notified and subsequently evacuated in a timely manner, putting them at risk.

RECOMMENDATION: The Borough should determine how each segment of the population requiring special notification is to be notified, and by whom, and modify all appropriate plans and procedures accordingly.