



# Federal Emergency Management Agency

Region V

536 South Clark Street, 6th Floor  
Chicago, IL 60605-1521

November 14, 2001

Mr. James Dyer  
Regional Administrator, Region III  
U.S. Nuclear Regulatory Commission  
801 Warrenville Road  
Lisle, Illinois 60532-4351

Dear Mr. Dyer:

Enclosed is a copy of the Final Exercise Report for the Biennial Radiological Emergency Preparedness (REP) Exercise conducted on July 10-11, 2001 for the Donald C. Cook Nuclear Power Plant.

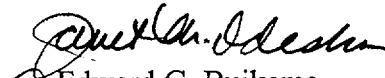
State and local organizations demonstrated knowledge of their emergency response plans and satisfactorily implemented them. There were no Deficiencies identified. Two outstanding Areas Requiring Corrective Action (ARCAs) for the State of Michigan and two outstanding ARCAs for Berrien County were resolved in this exercise. There was one ARCA identified for the State of Indiana, as described in part four of the report.

Based on the results of the July 10-11, 2001 exercise, the offsite radiological emergency response plans and preparedness for the State of Michigan, Berrien County in Michigan and the State of Indiana, site specific to the Donald C. Cook Nuclear Power Plant can be implemented. These plans are adequate to provide reasonable assurance that appropriate measures can be taken offsite to protect the health and safety of the public in the event of a radiological emergency at the site.

Therefore, Title 44 CFR, Part 350, approval of the offsite radiological emergency response plans and preparedness for the State of Michigan, Berrien County in Michigan, and the State of Indiana, granted on July 16, 1985 remains in effect. Copies of the report were also sent to FEMA Headquarters, Nuclear Regulatory Commission (NRC) Headquarters, the State of Michigan, and the State of Indiana.

If you have any questions, please let me know or have a member of your staff contact Alan Birman at (312) 408-5541.

Sincerely,

  
Edward G. Buikema  
Regional Director

NOV 14 2001



## **Final Exercise Report**

### **Donald C. Cook Nuclear Power Plant**

Licensee: **American Electric Power**

Exercise Date: **July 10-11, 2001**

Report Date: **November 14, 2001**

---

**FEDERAL EMERGENCY MANAGEMENT AGENCY**

**REGION V**

**536 South Clark Street, 6<sup>th</sup> Floor  
Chicago, Illinois 60605-1521**

---

## TABLE OF CONTENTS

|   | Page |
|---|------|
| TABLE OF CONTENTS.....  | i    |
| I. EXECUTIVE SUMMARY .....  | 1    |
| II. INTRODUCTION.....   | 2    |
| III. EXERCISE OVERVIEW .....                                      | 4    |
| A. Plume and Ingestion Emergency Planning Zone Descriptions ..... | 4    |
| B. Exercise Participants.....                                     | 5    |
| C. Exercise Timeline .....  | 6    |
| IV. EXERCISE EVALUATION AND RESULTS.....                          | 8    |
| A. Summary Results of Exercise Evaluation .....                   | 8    |
| B. Status of Jurisdictions Evaluated .....                        | 10   |
| 1. STATE OF MICHIGAN.....   | 12   |
| 1.1 State Emergency Operations Center .....                       | 12   |
| 1.2 State Initial Notification Point .....                        | 12   |
| 1.3 Dose Assessment .....   | 13   |
| 1.4 Joint Public Information Center (State) .....                 | 13   |
| 1.5 EW-Monitoring & Decontamination .....                         | 13   |
| 1.6 Public Reception Monitoring & Decontamination .....           | 14   |
| 2. RISK JURISDICTIONS .....                                       | 14   |
| 2.1 Berrien County.....   | 14   |
| 2.1.1 County Emergency Operations Center.....                     | 14   |
| 2.1.2 County Initial Notification Point.....                      | 15   |
| 2.1.3 JPIC-Rumor Control .....                                    | 15   |
| 2.1.4 Traffic/Access Control Point .....                          | 15   |
| 2.1.5 Dosimetry Distribution .....                                | 16   |
| 2.1.6 EW-Monitoring & Decontamination Center.....                 | 16   |

|       |  |    |
|-------|--|----|
| 2.1.7 | lakeshore Public Schools .....                       | 16 |
| 2.1.7 | Public Reception, Monitoring & Decontamination ..... | 17 |
| 2.1.7 | Public Congregate Care Center .....                  | 17 |
| 3.    | STATE OF INDIANA .....                               | 18 |
| 3.1   | State Emergency Operations Center .....              | 18 |
| 3.2   | Initial Notification Point .....                     | 18 |
| 3.3   | State Laboratory .....                               | 18 |
| 3.4   | Forward Operating Center .....                       | 19 |
| 3.5   | Ingestion Pathway Field Teams .....                  | 19 |

### **Appendices**

|  |    |
|--|----|
| APPENDIX 1 - ACRONYMS AND ABBREVIATIONS .....                          | 21 |
| APPENDIX 2 - EXERCISE EVALUATORS AND TEAM LEADERS .....                | 24 |
| APPENDIX 3 - EXERCISE OBJECTIVES AND<br>EXTENT-OF-PLAY AGREEMENT ..... | 26 |
| APPENDIX 4 - EXERCISE SCENARIO.....                                    | 44 |

### **List of Tables**

|   |   |
|---|---|
| TABLE 1 - EXERCISE TIMELINE .....                     | 7 |
| TABLE 2 - SUMMARY RESULTS OF EXERCISE EVALUATION..... | 9 |

## **I. EXECUTIVE SUMMARY**

On July 10 and 11, 2001, an exercise was conducted in the plume pathway (day 1): the States of Michigan and Indiana, and Berrien County (Michigan) participated and the ingestion pathway (day 2): the States of Michigan and Indiana participated, around the Donald C. Cook Nuclear Power Plant by the Federal Emergency Management Agency (FEMA) Region V. The ingestion portion had the potential to impact eight (8) counties in the State of Indiana. 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 (RERP) and procedures.

The most recent exercise at this site was conducted on October 26, 1999. Qualifying emergency preparedness exercises were conducted on July 16, 1985 and August 8-9, 1989.

FEMA wishes to acknowledge the efforts of the many individuals who participated in this exercise from the State of Michigan, the State of Indiana, and Berrien County.

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.

This report contains the final evaluation of the biennial exercise.

Both States and local organizations, except where noted in this report, demonstrated knowledge of their emergency response plans and procedures and adequately implemented them. There were no Deficiencies and one Area Requiring Corrective Action (ARCA) identified as a result of this exercise.

The one ARCA was assessed against the State of Indiana under Objective 24, Ingestion Exposure Pathway-Sampling. On July 11, 2001, the ingestion pathway sampling team experienced difficulty in accomplishing the field team assignments(s). Evaluator findings are identified in Section IV.B, Objective 24 (page 19) and include the need to ensure that all team members are properly trained.

Two outstanding ARCAs, identified in previous exercises, for the State of Michigan were resolved in this exercise: Objective 5, Emergency Worker Exposure Control and Objective 12, Emergency Information-Media. Two outstanding ARCAs for Berrien County were also resolved in this exercise: Objective 1, Mobilization of Emergency Personnel and Objective 22, Emergency Workers, Equipment, and Vehicles-Monitoring and Decontamination.

## **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 RERPs and 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 V Regional Assistance Committee (RAC), which is chaired by FEMA.

Formal submission of the RERPs for the D.C. Cook Nuclear Power Plant to FEMA Region V by the States of Michigan and Indiana involved local jurisdictions occurred on January 23, 1986. Formal approval of the RERP was granted by FEMA to the States of Michigan and Indiana on June 15, 1987, under 44 CFR 350.

A REP exercise was conducted on July 10-11, 2001, by FEMA Region V to assess the capabilities of both States and local emergency preparedness organizations in implementing their RERPs and procedures to protect the public health and safety during a radiological emergency involving the D.C. Cook Nuclear Power Plant. 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 V RAC Chairperson, and approved by the Regional Director.

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;
- FEMA-REP-14, "Radiological Emergency Preparedness Exercise Manual," September 1991; and
- FEMA-REP-15, "Radiological Emergency Preparedness Exercise Evaluation Methodology," September 1991.

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 and ingestion pathway EPZs, 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.

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 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 resolved 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 July 10-11, 2001 exercise to test the offsite emergency response capabilities in the area surrounding the Donald C. Cook Nuclear Power Plant. This section of the exercise report includes a description of the Plume and Ingestion Pathway EPZs, a listing of all participating jurisdictions and functional entities, which were evaluated, and a tabular presentation of the time of the actual occurrence of key exercise events and activities.

#### **A. Plume Emergency Planning Zone Description**

The Donald C. Cook Nuclear Power Plant is located in the State of Michigan, Berrien County, and City of Bridgman on the eastern shore of Lake Michigan.

The eastern half of the Primary 10-mile EPZ lies entirely within Berrien County. The following jurisdictions are located with this EPZ: Baroda Township, Baroda Village, City of Benton Harbor, Benton Township, City of Bridgman, City of Buchanan, Buchanan Township, Chikaming Township, Lake Township, Lincoln Township, Stevensville, Cronoko Township, Village of Berrien Springs, Royalton Township, City of St. Joseph, St. Joseph Township, Village of Shoreham, Sodus Township, and Weesaw Township. The western half of this EPZ extends into Lake Michigan in an approximately 10-mile radius.

Within the 10-mile EPZ, located on Lake Michigan, are summer resorts offering camping facilities, light housekeeping cottages, tourist attractions and the Warren Dunes State Park, which has a capacity of 22,000 people. The area has a population that varies from season to season. The permanent population is 52,954. Peak summer population is estimated to be 78,000 people. Seasonal fresh fruit and vegetable farming and processing takes place during the spring, summer, and fall. A portion of the large seasonal work force is Spanish-speaking. Lake Michigan is the cooling water source for the plant. Transportation facilities include the CSX Railroad. Land areas Sectors B through K and lake areas Sectors A through L and parts of D and K are the emergency response planning areas.

The fifty-mile radius of the ingestion EPZ consists of the following Michigan counties: Allegan, Cass, Berrien, Kalamazoo, St. Joseph and Van Buren. The ingestion EPZ consists of the following Indiana counties: Elkhart, Kosciusko, Lake, Laporte, Marshall, Porter, St. Joseph, and Starke.



## **B. Exercise Participants**

The following agencies, organizations, and units of government participated in the D.C. Cook Nuclear Power Plant Exercise on July 10-11, 2001.

### **STATE OF MICHIGAN**

Michigan State Police  
Michigan State Department of Transportation  
Michigan Department of Public Health  
Michigan Department of Natural Resources  
Michigan Department of Social Services  
Michigan Department of Agriculture

### **RISK JURISDICTION**

#### **BERRIEN COUNTY**

Berrien County Sheriff Department  
Berrien County Health Department  
Berrien County Department of Social Services  
Berrien County Fire Services  
Berrien County Family Independence Agency

### **STATE OF INDIANA**

Indiana State Emergency Management Agency  
Indiana State Department of Health  
Indiana State Police Post District 24

### **PRIVATE/VOLUNTEER ORGANIZATIONS**

Amateur Radio Emergency Service  
American Red Cross, Berrien County Chapter  
Seventh Day Adventist Disaster Services  
St. Joseph Township Fire Station #2  
Brandywine High School  
Lakeshore High School  
Radio Station WSJM  
Lake Michigan Community College

### **C. Exercise Timeline**

Table 1, on the following page, presents the time at which key events and activities occurred during the D.C. Cook Nuclear Power Plant Exercise, July 10-11, 2001. Also included are times that notifications were made to the participating jurisdictions/functional entities.

# TABLE 1. Exercise Timeline

DATE AND SITE: July 10, 2001 - D.C. Cook Nuclear Generating Plant

| Emergency Classification Level or Event                               | Time Utility Declared | Time That Notification Was received or Action Was Taken |                                       |                          |                         |
|---|-----------------------|---|---------------------------------------|--------------------------|-------------------------|
|   |                       | MICHIGAN STATE EOC (EDT)                                | JOINT PUBLIC INFORMATION CENTER (EDT) | BERRIEN COUNTY EOC (EDT) | INDIANA STATE EOC (CST) |
| Unusual Event   | 0748                  | 0813  | N/A                                   | 0830                     | 0818                    |
| Alert   | 0833                  | 0839  | N/A                                   | 0839                     | 0822                    |
| Site Area Emergency   | 0915                  | 0930  | 0920                                  | 0928                     | 0848                    |
| General Emergency   | 1008                  | 1010  | 1013                                  | 1017                     | 0919                    |
| SIM Radiation Release Started   | 1004                  | 1010  | 1004                                  | 1043                     | 0948                    |
| SIM Radiation Release Terminated:                                     | 1025                  | 1030  | 1040                                  | 1138                     | 1033                    |
| Facility Declared Operational   |                       | 0930  | 0930                                  | 0930                     | N/A                     |
| Declaration of State of Emergency                                     |                       | 0940  | 0940                                  | 0940                     | 1120                    |
| Exercise Terminated   |                       | 1250  | 1305                                  | 1250                     | 1250                    |
| 1st Protective Action Decision:                                       |                       | 1012  | 1037                                  | 1059                     | N/A                     |
| Agricultural Advisories   |                       | 1012  | 1043                                  | 1043                     | N/A                     |
| Transportation Restriction (FAA- Rail - Highway - Marine - Waterways) |                       | 1012  | 1103                                  | 1044                     | N/A                     |
| First Siren Activation  |                       | 1018  | 1022                                  | 1022                     | N/A                     |
| First EBS Activation  |                       | 1018  | 1022                                  | 1022                     | N/A                     |
| 2nd Protective Action Decision:                                       |                       |   |                                       |                          |                         |
| Evacuate: Areas 1 and 3   |                       | 1018  | 1018                                  | 1053                     | N/A                     |
| 2nd Siren Activation  |                       | 1053  | 1104                                  | 1104                     | N/A                     |
| 2nd EBS Activation  |                       | 1053  | 1104                                  | 1104                     | N/A                     |
| Shelter: Area 5   |                       |   |                                       |                          |                         |
| 1st Protective Action Decision: KI to EW                              |                       | 1012  | 1030                                  | 1021                     | N/A                     |
| 3rd Protective Action Order: continue                                 |                       | 1053  | 1053                                  | 1053                     | N/A                     |
| 3rd Siren Activation  |                       | N/A   | N/A                                   | N/A                      | N/A                     |
| 3rd EBS Activation  |                       | N/A   | N/A                                   | N/A                      | N/A                     |

Note: Eastern Daylight Time (EDT)  
Central Standard Time (CST)

#### **IV. EXERCISE EVALUATION AND RESULTS**

Contained in this section are the results and findings of the evaluation of all jurisdictions and functional entities that participated in the July 10-11, 2001, exercise to test the offsite emergency response capabilities of State and local governments in the 10-mile and ingestion pathway EPZs, surrounding the D.C. Cook Nuclear Power Plant.

Each jurisdiction and functional entity was evaluated on the basis of its demonstration of criteria delineated in exercise objectives contained in FEMA-REP-14, REP Exercise manual, September 1991. Detailed information on the exercise objectives and the extent-of-play agreement used in this exercise are found in Appendix 3 of this report.

##### **A. Summary Results of Exercise Evaluation - Table 2**

The matrix presented in Table 2, on the following page(s), presents the status of all exercise objectives from FEMA-REP-14 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 ARCA(s) 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)

Table 2 Summary Results of Exercise Evaluation

Site and Date: D.C.Cook Nuclear Power Plant July 10-11, 2001

| JURISDICTION/FUNCTIONAL ENTITY                        | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 15 | 16 | 17 | 18 | 19 | 20 | 21 | 22 | 23 | 24 | 25 | 26 | 27 | 28 | 29 | 30 | 31 | 32 | 33 |
|---|---|---|---|---|---|---|---|---|---|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|
| STATE OF MICHIGAN                                     |   |   |   |   |   |   |   |   |   |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
| State Emergency Operations Center                     | M | M | M | M |   |   |   |   | M |    | M  |    |    |    |    |    |    |    |    |    |    |    |    | M  |    |    |    |    |    |    |    | M  |    |
| Initial Notification Point                            | M |   |   | M |   |   |   |   |   |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
| Dose Assessment Center                                |   | M | M | M | M |   | M |   | M |    |    |    |    | M  |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
| Joint Public Information Center                       |   | M |   | M |   |   |   |   |   |    |    | M  |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
| EW, Monitoring & Decontamination Center               |   |   |   | M | M |   |   |   |   |    |    |    |    | M  |    |    |    |    |    |    |    |    | M  |    |    |    |    |    |    |    |    |    |    |
| Public Reception, Monitoring & Decontamination Center |   |   |   | M | M |   |   |   |   |    |    |    |    | M  |    |    |    | M  |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
| RISK JURISDICTION                                     |   |   |   |   |   |   |   |   |   |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
| BERRIEN COUNTY  |   |   |   |   |   |   |   |   |   |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
| County Emergency Operations Center                    | M | M | M | M | M |   |   |   |   | M  | M  |    |    | M  | M  |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
| Initial Notification Point                            | M |   |   | M |   |   |   |   |   |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
| Joint Public Information Center-Rumor Control         |   | M | M | M |   |   |   |   |   |    | M  | M  | M  |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
| Traffic/Access Control Point                          |   |   |   |   | M |   |   |   |   |    |    |    |    | M  | M  |    | M  |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
| Dosimetry Distribution                                |   |   |   |   | M |   |   |   |   |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
| Emergency Worker, Monitoring & Decontamination Center |   |   |   | M | M |   |   |   |   |    |    |    |    | M  |    |    |    |    |    |    |    |    | M  |    |    |    |    |    |    |    |    |    |    |
| Protective Actions - Schools EV-2                     |   |   |   | M | M |   |   |   |   |    |    |    |    |    |    | M  |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
| Public Reception, Monitoring & Decontamination Center |   |   |   | M | M |   |   |   |   |    |    |    |    | M  |    |    |    |    | M  |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
| Public Congregate Care Center                         |   |   |   | M |   |   |   |   |   |    |    |    |    |    |    |    |    |    |    |    |    | M  |    |    |    |    |    |    |    |    |    |    |    |
| STATE OF INDIANA                                      |   |   |   |   |   |   |   |   |   |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
| County Emergency Operations Center                    | M | M | M | M |   |   |   |   |   |    | M  | M  | M  |    |    |    |    |    |    |    |    |    | M  |    |    |    | M  | M  |    |    |    |    |    |
| Initial Notification Point                            | M |   |   | M |   |   |   |   |   |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
| State Laboratory                                      |   |   |   |   |   |   |   |   |   |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    | M  |    |    |    |    |    |    |
| Forward Operations Center                             |   |   |   | M | M | M |   |   |   |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    | M  |    |    |    |    |    |    |    |
| Ingestion Pathway Field Teams                         |   |   |   | M | M |   |   |   |   |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    | A  |    |    |    |    |    |    |    |

LEGEND:

M = Met (No Deficiency or ARCA's assessed)    A = ARCA(s) assessed or prior ARCAs not resolved    D = Deficiency(ies) assessed

N = Not Demonstrated    Blank = Not Scheduled For Demonstration

## **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 that 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 Issues - Resolved** - Descriptions of ARCAs assessed during previous exercises, which were resolved in this exercise and the corrective actions, demonstrated.
- **Prior Issues - Unresolved** - Descriptions of ARCAs assessed during prior exercises, which 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, which are discussed in this report.

- A **Deficiency** is defined in FEMA-REP-14 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 in FEMA-REP-14 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 also expedites tracking of exercise issues on a nationwide basis.

The identifying number of 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** - Last two digits of the year the exercise was conducted.
- **Objective Number** - A two-digit number corresponding to the objective numbers in FEMA-REP-14.
- **Issue Classification Identifier** - (D = Deficiency, A = ARCA)  
Only Deficiencies and ARCAs are included in exercise reports.  
Plan issues are reported to the State(s) via letter from the Regional Director.  
Therefore, standardized issue numbers are not assigned to Plan Issues.
- **Exercise Issue Identification Number** - A separate two (or three) digit indexing number, assigned to each issue identified in the exercise.

# **1. STATE OF MICHIGAN**

## **1.1 State Emergency Operations Center**

- a. **MET:** Objectives 1, 2, 3, 4, 9, 11, 23, and 31
- b. **DEFICIENCY:** NONE
- c. **AREAS REQUIRING CORRECTIVE ACTION (ARCA):** NONE
- d. **NOT DEMONSTRATED:** NONE
- e. **PRIOR ARCAs- RESOLVED:**

**Issue No.:** 44-00-05-A-01

**Description:** The representative of the Michigan Department of Natural Resources (DNR), in the State Emergency Operations Center, failed to provide dosimetry, protection and contamination control for the DNR personnel assigned to clear boat traffic in Lake Michigan.

**Corrective Action Demonstrated:** The revision of the procedure for the DNR, page 1 of 2, dated March 13, 2001, and the demonstration of requesting dosimetry and KI resolved this prior ARCA.

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

## **1.2 Initial Notification Point**

- a. **MET:** Objectives 1 and 4
- b. **DEFICIENCY:** NONE
- c. **AREAS REQUIRING CORRECTIVE ACTION (ARCA):** NONE
- d. **NOT DEMONSTRATED:** NONE
- e. **PRIOR ARCAs - RESOLVED:** NONE
- f. **PRIOR ARCAs - UNRESOLVED:** NONE



### **1.3 Dose Assessment Center**

- a. **MET:** Objectives 2, 3, 4, 5, 7, 9, and 14
- b. **DEFICIENCY:** NONE
- c. **AREAS REQUIRING CORRECTIVE ACTION (ARCA):** NONE
- d. **NOT DEMONSTRATED:** NONE
- e. **PRIOR ARCAs - RESOLVED:** NONE
- f. **PRIOR ARCAs – UNRESOLVED:** NONE

### **1.4 Joint Public Information Center**

- a. **MET:** Objectives 2, 4, 12, and 13
- b. **DEFICIENCY:** NONE
- c. **AREAS REQUIRING CORRECTIVE ACTION (ARCA):** NONE
- d. **NOT DEMONSTRATED:** NONE
- e. **PRIOR ARCAs - RESOLVED:**

**Issue No.:** 15-99-12-A-01

**Description:** News statement #3 issued by the JPIC stated: “The release was isolated and stopped at 11:14 a.m.” This statement could be misleading since the release from the plant was not completely stopped until 11:42 a.m.

**Corrective Action Demonstrated:** This was corrected during the issuance of a news release and at a press briefing which clarified the difference between isolating the leak and the release of radioactive material to the environment.

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

### **1.5 Emergency Worker, Monitoring and Decontamination Center**

- a. **MET:** Objectives 4, 5, 14, and 22
- b. **DEFICIENCY:** NONE

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

## **1.6 Public Reception, Monitoring and Decontamination Center**

- a. **MET: Objectives 4, 5, 14, and 18**
- b. **DEFICIENCY: NONE**
- c. **AREAS REQUIRING CORRECTIVE ACTION (ARCA): NONE**
- d. **NOT DEMONSTRATED: NONE**
- e. **PRIOR ARCAs – RESOLVED: NONE**
- f. **PRIOR ARCAs – UNRESOLVED: NONE**

## **2. RISK JURISDICTION**

### **2.1 BERRIEN COUNTY**

#### **2.1.1 County Emergency Operations Center**

- a. **MET: Objectives 1, 2, 3, 4, 5, 9, 10, 11, 14, and 15**
- b. **DEFICIENCY: NONE**
- c. **AREAS REQUIRING CORRECTIVE ACTION (ARCA): NONE**
- d. **NOT DEMONSTRATED: NONE**
- e. **PRIOR ARCAs - RESOLVED: NONE**
- f. **PRIOR ARCAs - UNRESOLVED: NONE**

### **2.1.2 Initial Notification Point**

- a. **MET:** Objectives 1 and 4
- b. **DEFICIENCY:** NONE
- c. **AREAS REQUIRING CORRECTIVE ACTION (ARCA):** NONE
- d. **NOT DEMONSTRATED:** NONE
- e. **PRIOR ARCAs- RESOLVED:** Objective 1

**Issue No.:** 15-99-01-A-02

**Description:** Upon three separate notifications by the D.C. Cook Nuclear Power Plant that an Emergency Classification Level had been declared, the Sheriff's Dispatcher failed to call the plant to verify the notification.

**Corrective Action Demonstrated:** The Sheriff's dispatcher verified all notifications from the D.C. Cook Nuclear Power Plant in accordance with Annex B, Appendix 1, and Revision 0 of the Berrien County Emergency Operations Plan, dated July 1999.

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

### **2.1.3 Joint Public Information Center–Rumor Control**

- a. **MET:** Objectives 2, 3, 4, 11, 12, and 13
- b. **DEFICIENCY:** NONE
- c. **AREAS REQUIRING CORRECTIVE ACTION (ARCA):** NONE
- d. **NOT DEMONSTRATED:** NONE
- e. **PRIOR ARCAs - RESOLVED:** NONE
- f. **PRIOR ARCAs - UNRESOLVED:** NONE

### **2.1.4 Traffic/Access Control Point**

- a. **MET:** Objectives 5, 14, 15, and 17

- b. **DEFICIENCY: NONE**
- c. **AREAS REQUIRING CORRECTIVE ACTION (ARCA): NONE**
- d. **NOT DEMONSTRATED: NONE**
- e. **PRIOR ARCAs - RESOLVED: NONE**
- f. **PRIOR ARCAs - UNRESOLVED: NONE**

#### **2.1.5 Dosimetry Distribution**

- a. **MET: Objective 5**
- b. **DEFICIENCY: NONE**
- c. **AREAS REQUIRING CORRECTIVE ACTION (ARCA): NONE**
- d. **NOT DEMONSTRATED: NONE**
- e. **PRIOR ARCAs - RESOLVED: NONE**
- f. **PRIOR ARCAs - UNRESOLVED: NONE**

#### **2.1.6 Emergency Worker, Monitoring and Decontamination Center**

- a. **MET: Objectives 4, 5, 14, and 22**
- b. **DEFICIENCY: NONE**
- c. **AREAS REQUIRING CORRECTIVE ACTION (ARCA): NONE**
- d. **NOT DEMONSTRATED: NONE**
- e. **PRIOR ARCAs - RESOLVED: NONE**
- f. **PRIOR ARCAs - UNRESOLVED: NONE**

#### **2.1.7 Lakeshore Public Schools**

- a. **MET: Objectives 4, 5, 14 and 16**
- b. **DEFICIENCY: NONE**

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

#### **2.1.8 Public Reception, Monitoring and Decontamination Center**

- a. **MET:** Objectives 4, 5, 14, and 18
- b. **DEFICIENCY:** NONE
- c. **AREAS REQUIRING CORRECTIVE ACTION (ARCA):** NONE
- d. **NOT DEMONSTRATED:** NONE
- e. **PRIOR ARCAs– RESOLVED:** Objective 22

**Issue No.:** 15-99-22-A-03

**Description:** Monitoring operations at the Berrien County Reception/Decontamination Center were inadequate to properly control contamination. Properly sealed containers were not utilized according to Berrien County's Standard Operating Procedures. Monitors varied the distance from the probe and monitoring surface and, in some cases, touched the surface with the probe. Berrien County Standard Operating Procedures, Paragraph B (5)(a) and C (3).

**Corrective Action Demonstrated:** During this exercise, a sufficient number of properly sealable contamination control containers and proper monitoring techniques were demonstrated.

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

#### **2.1.9 Public Congregate Care Center**

- a. **MET:** Objectives 4, 19
- b. **DEFICIENCY:** NONE
- c. **AREAS REQUIRING CORRECTIVE ACTION (ARCA):** NONE
- d. **NOT DEMONSTRATED:** NONE

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

### **3. STATE OF INDIANA**

#### **3.1 State Emergency Operations Center**

- a. **MET: Objectives 1, 2, 3, 4, 11, 12, 13, 23, 26, and 27**
- b. **DEFICIENCY: NONE**
- c. **AREAS REQUIRING CORRECTIVE ACTION (ARCA): NONE**
- d. **NOT DEMONSTRATED: NONE**
- e. **PRIOR ARCAs-RESOLVED: NONE**
- f. **PRIOR ARCAs-UNRESOLVED: NONE**

#### **3.2 Initial Notification Point**

- a. **MET: Objectives 1 and 4**
- b. **DEFICIENCY: NONE**
- c. **AREAS REQUIRING CORRECTIVE ACTION (ARCA): NONE**
- d. **NOT DEMONSTRATED: NONE**
- e. **PRIOR ARCAs-RESOLVED: NONE**
- f. **PRIOR ARCAs-UNRESOLVED: NONE**

#### **3.3 State Laboratory**

- a. **MET: Objective 25**
- b. **DEFICIENCY: NONE**
- c. **AREA REQUIRING CORRECTIVE ACTION (ARCA): NONE**

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

### **3.4 Forward Operations Center**

- a. **MET: Objectives 3, 4, 5, and 24**
- b. **DEFICIENCY: NONE**
- c. **AREAS REQUIRING CORRECTIVE ACTION (ARCA): NONE**
- d. **NOT DEMONSTRATED: NONE**
- e. **PRIOR ARCAs - RESOLVED: NONE**
- f. **PRIOR ARCAs - UNRESOLVED: NONE**

### **3.5 Ingestion Pathway Field Teams**

- a. **MET: Objectives 4 and 5**
- b. **DEFICIENCY: NONE**
- c. **AREAS REQUIRING CORRECTIVE ACTION (ARCA): Objective 24**

**Issue No.: 15-01-24-A-01**

**Description:** On July 11, 2001 an ingestion pathway sampling team in Bremen (St. Joseph County) did not adequately demonstrate the use of radiation instrumentation nor did the team members possess adequate knowledge of radiation control techniques to safely obtain environmental samples. Additionally, (1) the wrong scale on a radiation-monitoring instrument was used, (2) the difference between mR/hr and cpm was not understood, (3) documentation of contamination levels was incorrectly recorded, (4) the method used to survey people for contamination was conducted too quickly and too far from the skin to detect contamination, and (5) protective clothing was not worn in a field with approximately two-foot high vegetation where suspected contamination levels were unknown.

**Recommendation:** This is a training issue. According to members of the field team, previous training consisted of a day of theory and about one hour of practical, hands-on experience in the classroom. The sampling team members should be instructed in radiation instrumentation use, radiation control techniques, and have supervised field practice session to use and perfect their skills.

**Schedule of Corrective action:** To correct the problem of insufficient training, the Indiana State Emergency Management Agency proposes four training sessions in basic and advanced sampling team procedures beginning May 14, 2002, then sampling team drills, May 23-24, 2002.

- 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.

|       |   |
|-------|---|
| ACP   | Access Control Point                                    |
| AMA   | American Medical Association                            |
| ANI   | American Nuclear Insurers                               |
| ARC   | American Red Cross                                      |
| ARCA  | Area Requiring Corrective Action                        |
| CCC   | Congregate Care Center                                  |
| CD-V  | Civil Defense - Victoreen                               |
| CFR   | Code of Federal Regulations                             |
| CPM   | Counts Per Minute                                       |
| DHHS  | U.S. Department of Health and Human Services            |
| DOC   | U.S. Department of Commerce                             |
| DOE   | U.S. Department of Energy                               |
| DOI   | U.S. Department of the Interior                         |
| DOT   | U.S. Department of Transportation                       |
| DRD   | Direct Reading Dosimeter                                |
| EAL   | Emergency Action Level                                  |
| EAS   | Emergency Alert System                                  |
| EBS   | Emergency Broadcast System                              |
| ECL   | Emergency Classification Level                          |
| EEM   | Exercise Evaluation Methodology                         |
| EOC   | Emergency Operations Center                             |
| EOF   | Emergency Operations Facility                           |
| EPA   | U.S. Environmental Protection Agency                    |
| EPZ   | Emergency Planning Zone                                 |
| ETA   | Estimated Time of Arrival                               |
| ETE   | Evacuation Time Estimate                                |
| EWMDS | Emergency Worker Monitoring and Decontamination Station |
| EW    | Emergency Worker  |
| FAA   | Federal Aviation Administration                         |
| FCC   | Federal Communications Commission                       |
| FDA   | U.S. Food and Drug Administration                       |
| FEMA  | Federal Emergency Management Agency                     |
| FR    | Federal Register  |
| FTC   | Field Team Coordinator                                  |

|                      |   |
|----------------------|---|
| FTC                  | Field Team Coordinator  |
| ft/min               | feet per minute   |
| ft <sup>3</sup> /min | cubic feet per minute   |
| GE                   | General Emergency   |
| GM                   | Guidance Memorandum   |
| IP                   | Implementing Procedure  |
| JIC                  | Joint Information Center  |
| JPIC                 | Joint Public Information Center   |
| KI                   | Potassium Iodide  |
| mR                   | milliroentgen   |
| mR/h                 | milliroentgen per hour  |
| NOAA                 | National Oceanic and Atmospheric Administration   |
| NOUE                 | Notification of Unusual Event   |
| NRC                  | U.S. Nuclear Regulatory Commission  |
| NUREG-0654           | NUREG-0654/FEMA-REP-1, Rev. 1, <i>"Criteria for Preparation and Evaluation of Radiological Emergency Response Plans and Preparedness in Support of Nuclear Power Plants," November 1980</i> |
| NWS                  | National Weather Service  |
| OEM                  | Office of Emergency Management  |
| ORO                  | Offsite Response Organization   |
| PAD                  | Protective Action Decision  |
| PAG                  | Protective Action Guide   |
| PAO                  | Public Affairs Official   |
| PAR                  | Protective Action Recommendation  |
| PIO                  | Public Information Officer  |
| POR                  | Point of Review   |
| R                    | Roentgen  |
| RAC                  | Regional Assistance Committee   |
| RACES                | Radio Amateur Civil Emergency Service   |
| RC                   | Reception Center  |
| REA                  | Radioactive Emergency Area  |
| REM                  | Roentgen Equivalent Man   |
| REP                  | Radiological Emergency Preparedness   |
| RERP                 | Radiological Emergency Response Plan  |
| R/h                  | Roentgen(s) per hour  |
| RO                   | Radiological Officer  |

|                      |   |
|----------------------|---|
| ft/min               | feet per minute   |
| ft <sup>3</sup> /min | cubic feet per minute   |
| GE                   | General Emergency   |
| GM                   | Guidance Memorandum   |
| IP                   | Implementing Procedure  |
| JIC                  | Joint Information Center  |
| JPIC                 | Joint Public Information Center   |
| KI                   | Potassium Iodide  |
| mR                   | milliroentgen   |
| mR/h                 | milliroentgen per hour  |
| NOAA                 | National Oceanic and Atmospheric Administration   |
| NOUE                 | Notification of Unusual Event   |
| NRC                  | U.S. Nuclear Regulatory Commission  |
| NUREG-0654           | NUREG-0654/FEMA-REP-1, Rev. 1, <i>"Criteria for Preparation and Evaluation of Radiological Emergency Response Plans and Preparedness in Support of Nuclear Power Plants," November 1980</i> |
| NWS                  | National Weather Service  |
| OEM                  | Office of Emergency Management  |
| ORO                  | Offsite Response Organization   |
| PAD                  | Protective Action Decision  |
| PAG                  | Protective Action Guide   |
| PAO                  | Public Affairs Official   |
| PAR                  | Protective Action Recommendation  |
| PIO                  | Public Information Officer  |
| POR                  | Point of Review   |
| R                    | Roentgen  |
| RAC                  | Regional Assistance Committee   |
| RACES                | Radio Amateur Civil Emergency Service   |
| RC                   | Reception Center  |
| REA                  | Radioactive Emergency Area  |
| REM                  | Roentgen Equivalent Man   |
| REP                  | Radiological Emergency Preparedness   |
| RERP                 | Radiological Emergency Response Plan  |
| R/h                  | Roentgen(s) per hour  |
| RO                   | Radiological Officer  |

|      |  |
|------|--|
| SAE  | Site Area Emergency                    |
| SEOC | State Emergency Operations Center      |
| TCP  | Traffic Control Point                  |
| TDD  | Telecommunications Device for the Deaf |
| TL   | Team Leader                            |
| TLD  | Thermoluminescent Dosimeter            |
| UHF  | Ultra High Frequency                   |
| USCG | U.S. Coast Guard                       |
| USDA | U.S. Department of Agriculture         |
| VHF  | Very High Frequency                    |
| WP   | Warning Point                          |

## APPENDIX 2

### EXERCISE EVALUATORS AND TEAM LEADERS

The following is a list of the personnel who evaluated the D.C. Cook Nuclear Power Plant exercise on July 10-11, 2001. Evaluator Team Leaders are indicated by the letters "(TL)" after their names. The organization which each evaluator represents is indicated by the following abbreviations:

|      |                                     |
|------|-------------------------------------|
| FEMA | Federal Emergency Management Agency |
| ICF  | ICF Consultants                     |
| RAC  | Regional Assistance Committee       |

|   | <u>EVALUATOR</u> | <u>ORGANIZATION</u> |
|---|------------------|---------------------|
| Chairman, Regional Assistance Committee | Woodie J. Curtis | FEMA                |
| Exercise Director                       | Woodie J. Curtis | FEMA                |

| <u>EVALUATION SITE</u> | <u>EVALUATOR</u> | <u>ORGANIZATION</u> |
|------------------------|------------------|---------------------|
|------------------------|------------------|---------------------|

#### STATE OF MICHIGAN

|                                   |                    |      |
|-----------------------------------|--------------------|------|
| Initial Notification Point        | Clint Crackel (TL) | FEMA |
| State Emergency Operations Center | Clint Crackel (TL) | FEMA |
|                                   | Bob Rospenda       | ICF  |
| Dose Assessment Center            | Richard Grundstrom | ICF  |
| Joint Public Information Center   | Bill Leuders       | ICF  |
| Media/Rumor Control               | Bill Leuders       | ICF  |

#### STATE OF INDIANA

|                                   |                    |      |
|-----------------------------------|--------------------|------|
| Initial Notification Point        | Gary Naskrent (TL) | FEMA |
| State Emergency Operations Center | Gary Naskrent (TL) | FEMA |
|                                   | Kathleen Barrett   | USDA |
| State Laboratory                  | Larry Jensen       | RAC  |
| Forward Operations Center         | Harry Harrison     | ICF  |
| Field Teams                       | Harry Harrison     | ICF  |
|                                   | Christine Van Horn | RAC  |
|                                   | Marynette Herndon  | ICF  |

## **BERRIEN COUNTY**

|                                    |                    |      |
|------------------------------------|--------------------|------|
| Initial Notification Point         | Alan Birman (TL)   | FEMA |
| County Emergency Operations Center | Alan Birman (TL)   | FEMA |
|                                    | Roy Smith          | ICF  |
| Dosimetry Distribution             | Carolyn Sturghill  | FEMA |
| JPIC/Rumor Control                 | Bill Leuders       | ICF  |
| EV-2                               | Alan Birman        | FEMA |
| Traffic/Access Control Point       | Carolyn Sturghill  | FEMA |
| EW/Monitoring and Decontamination  | Harry Harrison     | ICF  |
|                                    | Roy Smith          | ICF  |
| EW/Reception Center and Decon.     | Christine Van Horn | RAC  |
|                                    | Alan Birman        | FEMA |
| Congregate Care                    | Marynette Herndon  | ICF  |
|                                    | Carolyn Sturghill  | FEMA |

## **APPENDIX 3**

### **EXERCISE OBJECTIVES AND EXTENT-OF-PLAY AGREEMENT**

This appendix lists the exercise objectives, which were scheduled for the demonstration at the D.C. Cook Nuclear Power Plant, July 10-11, 2001, and the extent-of-play agreement approved by FEMA Region V on February 28, 2001.

The exercise objectives, contained in FEMA-REP-14, "Radiological Emergency Preparedness Exercise Manual," September 1991, represent a functional translation 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.

Because the exercise objectives are intended for use at all nuclear power plant sites and because of variations among offsite plans and procedures, and extent-of-play agreement is prepared by the State and approved by FEMA to provide evaluators with guidance on the expected actual demonstration of the objectives.

#### **A. Exercise Objectives**

Listed below are the specific REP objective scheduled for demonstration during this exercise.

##### **OBJECTIVE 1: MOBILIZATION OF EMERGENCY PERSONNEL**

Demonstrate the capability to alert and fully mobilize personnel for both emergency facilities and field operations. Demonstrate the capability to activate and staff emergency facilities for emergency operations.

##### **OBJECTIVE 2: FACILITIES - EQUIPMENT, DISPLAYS, AND WORK ENVIRONMENT**

Demonstrate the adequacy of facilities, equipment, displays and other materials to support emergency operations.

##### **OBJECTIVE 3: DIRECTION AND CONTROL**

Demonstrate the capability to direct and control emergency operations.

##### **OBJECTIVE 4: COMMUNICATIONS**

Demonstrate the capability to communicate with all appropriate emergency personnel at facilities and in the field.

**OBJECTIVE 5:      EMERGENCY WORKER EXPOSURE CONTROL**

Demonstrate the capability to continuously monitor and control radiation exposure to emergency workers.

**OBJECTIVE 7:      PLUME DOSE PROJECTION**

Demonstrate the capability to develop dose projections and protective action recommendations regarding evacuation and sheltering.

**OBJECTIVE 9:      PLUME PROTECTIVE ACTION DECISION MAKING**

Demonstrate the capability to make timely and appropriate protective action decisions.

**OBJECTIVE 10:    ALERT AND NOTIFICATION**

Demonstrate the capability to promptly alert and notify the public within the 10-mile plume pathway emergency planning zone and disseminate instructional messages to the public on the basis of decisions by appropriate State or local officials.

**OBJECTIVE 11:    PUBLIC INSTRUCTIONS AND EMERGENCY  
INFORMATION**

Demonstrate the capability to coordinate the formulation and dissemination of accurate information and instructions to the public.

**OBJECTIVE 12:    EMERGENCY INFORMATION - MEDIA**

Demonstrate the capability to coordinate the development and dissemination of clear, accurate, and timely information to the news media.

**OBJECTIVE 13:    EMERGENCY INFORMATION - RUMOR CONTROL**

Demonstrate the capability to establish and operate rumor control in a coordinated and timely manner.

**OBJECTIVE 14:    IMPLEMENTATION OF PROTECTIVE ACTIONS - USE  
OF POTASSIUM IODIDE FOR EMERGENCY WORKERS,  
INSTITUTIONALIZED INDIVIDUALS, AND THE  
GENERAL PUBLIC**

Demonstrate the capability and resources to implement potassium iodide protective actions for emergency workers, institutionalized individuals, and, if the State plan specifies, the general public.



**OBJECTIVE 15: IMPLEMENTATION OF PROTECTIVE ACTIONS - SPECIAL POPULATIONS**

Demonstrate the capability and resources necessary to implement appropriate protective actions for special populations.

**OBJECTIVE 16: IMPLEMENTATION OF PROTECTIVE ACTIONS - SCHOOLS**

Demonstrate the capability and resources necessary to implement protective actions for school children within the plume pathway emergency planning zone.

**OBJECTIVE 17: TRAFFIC AND ACCESS CONTROL**

Demonstrate the organizational capability and resources necessary to control evacuation traffic flow and to control access to evacuated and sheltered areas.

**OBJECTIVE 18: RECEPTION CENTER - MONITORING, DECONTAMINATION AND REGISTRATION**

Demonstrate the adequacy of procedures, facilities, equipment, and personnel for the radiological monitoring, decontamination and registration of evacuees.

**OBJECTIVE 19: CONGREGATE CARE**

Demonstrate the adequacy of facilities, equipment, supplies, personnel, and procedures for congregate care of evacuees.

**OBJECTIVE 22: EMERGENCY WORKERS, EQUIPMENT, AND VEHICLES MONITORING AND DECONTAMINATION**

Demonstrate the adequacy of procedures for the monitoring and decontamination of emergency workers, equipment, and vehicles.

**OBJECTIVE 23: SUPPLEMENTARY ASSISTANCE (FEDERAL/OTHER)**

Demonstrate the capability to identify the need for external assistance and to request such assistance from Federal or other support organizations.

**OBJECTIVE 24: POST-EMERGENCY SAMPLING**

Demonstrate the use of equipment and procedures for the collection and transportation of samples from areas that received deposition from the airborne plume.

**OBJECTIVE 25:    LABORATORY OPERATIONS**

Demonstrate laboratory operations and procedures for measuring and analyzing samples.

**OBJECTIVE 26:    INGESTION EXPOSURE PATHWAY - DOSE  
PROJECTION AND PROTECTIVE ACTION DECISION  
MAKING**

Demonstrate the capability to project dose to the public for the ingestion exposure pathway and to recommend protective actions.

**OBJECTIVE 27:    INGESTION EXPOSURE PATHWAY - PROTECTIVE  
ACTION IMPLEMENTATION**

Demonstrate the capability to implement protective actions for the ingestion exposure pathway.

**OBJECTIVE 28:    RELOCATION, RE-ENTRY, AND RETURN - DECISION  
MAKING**

Demonstrate the capability to develop decisions on relocation, re-entry, and return.

**OBJECTIVE 29:    RELOCATION, RE-ENTRY, AND RETURN -  
IMPLEMENTATION**

Demonstrate the capability to implement appropriate measures for relocation, re-entry, and return.

**OBJECTIVE 31:    OFFSITE SUPPORT FOR THE EVACUATION OF ONSITE  
PERSONNEL**

Demonstrate the capability to provide offsite support for the evacuation of onsite personnel.

## **B. Extent-of-Play**

The extent-of-play agreement on the following pages was submitted by the States of Michigan and Indiana and Berrien County and the D.C. Cook Nuclear Power Plant and was approved by FEMA Region V on February 28, 2001, in preparation for the D.C. Cook Nuclear Power Plant exercise on July 10-11, 2001. The extent-of-play agreement includes any significant modification or change in the level of demonstration of each exercise objective listed in Subsection A of this appendix.

### **STATE OF MICHIGAN AND BERRIEN COUNTY**

#### **COOK 2001 REP EXERCISE OBJECTIVES**

The Extent of Play listed under each objective describes the full extent of actions to be taken by state and local government exercise participants to demonstrate that objective.

### **GROUP A OBJECTIVES**

These objectives should be demonstrated in every biennial exercise by all Offsite Response Organizations (OROs) that have responsibility for them.

#### **OBJECTIVE 1: MOBILIZATION OF EMERGENCY PERSONNEL**

Demonstrate the capability to alert and fully mobilize personnel for both emergency facilities and field operations. Demonstrate the capability to activate and staff emergency facilities for emergency operations.

##### ***Extent of Play:***

*Personnel at the Berrien County EOC will demonstrate alert, mobilization, and activation in sequence with the exercise. Berrien County will also demonstrate alert, mobilization, and activation of JPIC personnel. Alert, mobilization, and activation procedures can be observed at the sheriff department. Actions to close ARCA 15-99-A-01-02, failure to verify notifications from the Cook Plant in accordance with the Berrien County Plan may be observed in the Berrien County Dispatch.*

*SEOC personnel will demonstrate alert, mobilization, and activation in sequence with the exercise. State JPIC personnel and the State liaison to the Berrien County EOC will be prestaged. The Field Team Center will not be activated for this exercise. Alert, mobilization, and activation procedures can be observed at State Police Operations in Lansing.*

*All personnel involved in county emergency worker decontamination centers; public reception/decontamination and congregate care centers will be pre-positioned at their facilities/locations.*

*No individual will serve as a player in more than one location.*

#### **OBJECTIVE 2: FACILITIES - EQUIPMENT, DISPLAYS, AND WORK ENVIRONMENT**

Demonstrate the adequacy of facilities, equipment, displays, and other materials to support emergency operations.

***Extent of Play:***

*The Berrien County EOC will be set up in sequence with the exercise. All facilities used in out of sequence demonstrations will be set up as part of the demonstration.*

*The SEOC in Lansing is permanently set up. Utility personnel will set up the JPIC in advance of the exercise. The Field Team Center will not be activated for this exercise.*

**OBJECTIVE 3: DIRECTION AND CONTROL**

Demonstrate the capability to direct and control emergency operations.

Berrien County will demonstrate this objective at its EOC.

The State will demonstrate this objective at the SEOC.

**OBJECTIVE 4: COMMUNICATIONS**

Demonstrate the capability to communicate with all appropriate emergency personnel at facilities and in the field.

***Extent of Play:***

Berrien County will demonstrate effective communications with the SEOC and JPIC.  
Communication with Rumor Control will occur as dictated by the scenario.

The state will demonstrate effective communications with the Berrien County EOC, the JPIC, and the simulated Field Team Center.

**OBJECTIVE 5: EMERGENCY WORKER EXPOSURE CONTROL**

Demonstrate the ability to continuously monitor and control radiation exposure to emergency workers.

***Extent of Play:***

*Dosimetry will be distributed to personnel for an access control point demonstration in Berrien County in sequence with the exercise at the EOC. Emergency Worker Decontamination Center and Public Reception/Decontamination Center demonstrations will be conducted out of sequence; personnel will be provided dosimetry at the time of the demonstration.*

*No state field personnel will be deployed during the exercise. Department of Environmental Quality health physicists will bring their own dosimetry to Berrien County Emergency Worker Decontamination Center and Public Reception/Decontamination Center demonstrations. ARCA 44-00-05-A-01 was identified during a previous exercise via a discussion between a FEMA evaluator and the DNR representative in the SEOC. SEOC procedures have been modified to address this issue, which may be evaluated via interview with the DNR Representative following a request to the State SEOC Controller.*

## **OBJECTIVE 6: FIELD RADIOLOGICAL MONITORING - AMBIENT RADIATION**

Demonstrate the appropriate use of equipment and procedures for determining field radiation measurements.

### ***Extent of Play:***

**This objective is not applicable to Berrien County.**

*The state will not deploy monitoring personnel or demonstrate this objective during this exercise.*

## **OBJECTIVE 7: PLUME DOSE PROJECTION**

Demonstrate the capability to develop dose projections and protective action recommendations regarding evacuation and sheltering.

### ***Extent of Play:***

**This objective is not applicable to Berrien County.**

*The State will develop dose projections via a Field Team Center (simulated) cell and develop protective action recommendations at the SEOC during the exercise.*

## **OBJECTIVE 8: FIELD RADIOLOGICAL MONITORING - AIRBORNE RADIOIODINE AND PARTICULATE ACTIVITY MONITORING**

Demonstrate the appropriate use of equipment and procedures for the measurement of airborne radioiodine concentrations as low as  $10^{-7}$  (0.0000001) microcuries per cubic centimeter in the presence of noble gases and obtain samples of particulate activity in the airborne plume.

### ***Extent of Play:***

**This objective is not applicable to Berrien County.**

**The state will not deploy monitoring personnel during this exercise.**

## **OBJECTIVE 9: PLUME PROTECTIVE ACTION DECISION MAKING**

Demonstrate the capability to make timely protective action decisions (PADs).

### ***Extent of Play:***

**This objective is not applicable to Berrien County.**

*The State will issue protective action orders at the SEOC during the exercise.*

## OBJECTIVE 10: ALERT AND NOTIFICATION

Demonstrate the capability to promptly alert and notify the public within the 10-mile plume pathway emergency planning zone (EPZ) and disseminate instructional messages to the public on the basis of decisions by appropriate state and local officials.

### *Extent of Play:*

*The Berrien County Sheriff Department is the primary activation point for the public warning system (siren system and public notification) for the primary EPZ. The Berrien County EOC will simulate siren and radio system activation to WSJM AM/FM. The FEMA interview with WSJM personnel will occur following radio station exercise participation in simulated Protective Action Order broadcasts.*

*The State will issue Governor's Orders to Berrien County to activate the siren system with geographic boundaries as part of Protective Action Orders.*

## OBJECTIVE 11: PUBLIC INSTRUCTIONS AND EMERGENCY INFORMATION

Demonstrate the capability to coordinate the formulation and dissemination of accurate information and instructions to the public.

### *Extent of Play:*

*This objective will be demonstrated through Berrien County Emergency Warning System (BCEWS) announcements from the Berrien County EOC.*

*The State will convey EAS information via the JPIC. (Also see Objective 10 Extent of Play.)*

## OBJECTIVE 12: EMERGENCY INFORMATION - MEDIA

Demonstrate the capability to coordinate the development and dissemination of clear, accurate, and timely information to the news media at the JPIC.

### *Extent of Play:*

*Berrien County will demonstrate this objective at the JPIC. Copies of media releases will be sent to the Berrien County EOC.*

*The State will demonstrate this objective at the JPIC. Copies of media releases will be sent to the SEOC.*

*15-99-12-A-01 ARCA-communication problem between utility and state JPIC*

## OBJECTIVE 13: EMERGENCY INFORMATION - RUMOR CONTROL

Demonstrate the capability to establish and operate rumor control in a coordinated and timely manner.

### *Extent of Play:*

*Rumor Control for the Cook Plant is located at the Joint Public Information Center and is staffed by Cook Plant personnel. Trending is performed by the Rumor Control Manager, who identifies trends and ensures appropriate information is provided to the rumor control operators.*

*The State is not involved in Rumor Control operation.*

## GROUP B OBJECTIVES

These objectives should be demonstrated in every biennial exercise by some OROs. Specific participation is dependent on scenario events and exercise play. Should be demonstrated every six years by the responsible ORO.

## OBJECTIVE 14: IMPLEMENTATION OF PROTECTIVE ACTIONS - USE OF KI FOR EMERGENCY WORKERS, INSTITUTIONALIZED INDIVIDUALS

Demonstrate the capability and resources to implement potassium iodide (KI) protective actions for emergency workers, institutionalized individuals, and, if the State Plan specifies, the general public.

### *Extent of Play:*

*KI is distributed to Berrien County emergency workers along with their dosimetry. This will be demonstrated at the Berrien County EOC during the exercise as agreed between the assigned FEMA evaluator and the State controller.*

*The State issues KI and dosimetry to its emergency workers at the Field Team Center. Since the Field Team Center will not be demonstrated during this exercise, this portion of the objective will not be demonstrated. The State will demonstrate this objective through decision-making at the SEOC.*

## OBJECTIVE 15: IMPLEMENTATION OF PROTECTIVE ACTIONS - SPECIAL POPULATIONS

Demonstrate the capability and resources necessary to implement appropriate protective actions for special populations.

### *Extent of Play:*

*Lists of transportation dependent and special needs populations are kept by Berrien County. No personnel will be moved during the exercise. Equipment lists and rosters will be available in the county EOC.*

*This objective does not apply to the State of Michigan.*

## OBJECTIVE 16: IMPLEMENTATION OF PROTECTIVE ACTIONS - SCHOOLS

Demonstrate the capability and resources necessary to implement protective actions for school children within the plume pathway emergency planning zone (EPZ).

### *Extent of Play:*

*Berrien County will demonstrate this objective during an EV-2 interview, May 15, 2001. Arrangements will be provided in the Table of Facilities submitted with the exercise scenario. There will be no EOC demonstration of this objective aside from the internal discussions on how the process would be conducted.*

*This objective does not apply to the State of Michigan.*

## OBJECTIVE 17: TRAFFIC AND ACCESS CONTROL

Demonstrate the organizational capability and resources necessary to control evacuation traffic flow and to control access to evacuated and sheltered areas.

### *Extent of Play:*

*Berrien County will demonstrate one Access Control Point in sequence with the exercise. The demonstration will be initiated out of the Berrien County EOC and will take place near the Berrien County Sheriff Department, not inside the plume exposure EPZ at a mutually agreed upon location.*

*The State will not demonstrate this objective.*

## OBJECTIVE 18: RECEPTION CENTER - MONITORING, DECONTAMINATION, AND REGISTRATION

Demonstrate the adequacy of procedures, facilities, equipment, and personnel for the radiological monitoring, decontamination, and registration of evacuees.

### *Extent of Play:*

*Berrien County will fully demonstrate one reception center out of sequence with the exercise. Berrien County will demonstrate that there are adequate containers for contaminated items and proper monitoring technique to close ARCA 15-99-A-22-03.*

*State DEQ HP personnel will provide assistance as requested during the Berrien County reception center demonstration.*



## OBJECTIVE 19: CONGREGATE CARE

Demonstrate the adequacy of facilities, equipment, supplies, personnel, and procedures for congregate care of evacuees.

### *Extent of Play:*

*Berrien County will fully demonstrate one congregate care center out of sequence with the exercise.*

*This objective does not apply to the State of Michigan.*

## OBJECTIVE 20: MEDICAL SERVICES - TRANSPORTATION

Demonstrate the adequacy of vehicles, equipment, procedures, and personnel for transporting contaminated, injured, or exposed individuals.

This objective will be demonstrated during the *November 8, 2001 MS-1 exercise* for Berrien County.

*This objective does not apply to the State of Michigan.*

## OBJECTIVE 21: MEDICAL SERVICES - FACILITIES

Demonstrate the adequacy of the equipment, procedures, supplies, and personnel of medical facilities responsible for treatment of contaminated, injured, or exposed individuals.

This objective will be demonstrated during the *November 8, 2001 MS-1 exercise* for Berrien County.

*This objective does not apply to the State of Michigan.*

## OBJECTIVE 22: EMERGENCY WORKERS, EQUIPMENT, AND VEHICLES - MONITORING AND DECONTAMINATION

Demonstrate the adequacy of procedures for monitoring and decontamination of emergency workers, equipment, and vehicles.

### *Extent of Play:*

*Berrien County will fully demonstrate one emergency worker decontamination center out of sequence with the exercise.*

*State DEQ HP personnel will provide assistance to the county as requested during the Berrien County emergency worker decontamination center demonstration.*

## OBJECTIVE 23: SUPPLEMENTARY ASSISTANCE (FEDERAL/OTHER)

Demonstrate the capability to identify the need for external assistance and to request such assistance from federal or other support organizations.

*Extent of Play:*

*This objective does not apply to Berrien County.*

*The SEOC will notify the FEMA V Regional Duty Officer and request assistance through the DOE Region V RAP in Argonne, Illinois and/or the NRC Operations Center in Rockville, Maryland.*

## GROUP C OBJECTIVES

These objectives should be demonstrated at least once every six years by each organization with responsibility for them as determined by the organization's plans and procedures.

### OBJECTIVE 24: POST-EMERGENCY SAMPLING

Demonstrate the use of equipment and procedures for the collection and transportation of samples from areas that received deposition from the airborne plume.

*This objective does not apply to Berrien County.*

*The State of Michigan will not demonstrate this objective.*

### OBJECTIVE 25: LABORATORY OPERATIONS

Demonstrate laboratory operations and procedures for measuring and analyzing samples.

*This objective does not apply to Berrien County.*

*The State of Michigan will not demonstrate this objective.*

### OBJECTIVE 26: INGESTION EXPOSURE PATHWAY - DOSE PROJECTION AND PROTECTIVE ACTION (PA) DECISION MAKING

Demonstrate the capability to project dose to the public for the ingestion exposure pathway and to recommend PAs.

*This objective does not apply to Berrien County.*

*The State of Michigan will not demonstrate this objective.*

### OBJECTIVE 27: INGESTION EXPOSURE PATHWAY - PROTECTIVE ACTION IMPLEMENTATION

Demonstrate the capability to implement protective actions for the ingestion exposure pathway.

*This objective does not apply to Berrien County.*

*The State of Michigan will not demonstrate this objective.*

#### OBJECTIVE 28: RELOCATION, RE-ENTRY, AND RETURN - DECISION MAKING

Demonstrate the capability to develop decisions on relocation, re-entry, and return.

*This objective does not apply to Berrien County.*

*The State of Michigan will not demonstrate this objective.*

#### OBJECTIVE 29: RELOCATION, RE-ENTRY, AND RETURN - IMPLEMENTATION

Demonstrate the capability to implement appropriate measures for relocation, re-entry, and return.

*This objective does not apply to Berrien County.*

*The State of Michigan will not demonstrate this objective.*

#### OBJECTIVE 30: CONTINUOUS, 24-HOUR STAFFING

Demonstrate the capability to maintain staffing on a continuous, 24-hour basis through an actual shift change.

*Berrien County will not demonstrate this objective.*

*The State of Michigan will not demonstrate this objective.*

#### OBJECTIVE 31: OFF-SITE SUPPORT FOR THE EVACUATION OF ON-SITE PERSONNEL

Demonstrate the capability to provide off-site support for the evacuation of on-site personnel.

*Berrien County will not demonstrate this objective.*

*The State of Michigan will only demonstrate this objective if requested to do so by the utility.*

#### OBJECTIVE 32: UNANNOUNCED DRILL

Demonstrate the capability to carry out emergency response functions in an unannounced exercise or drill.

*Berrien County will not demonstrate this objective.*

*The State of Michigan will not demonstrate this objective.*

#### OBJECTIVE 33: OFF-HOURS DRILL

Demonstrate the capability to carry out emergency response functions during an off-hours exercise or drill.

*Berrien County will not demonstrate this objective.*

*The State of Michigan will not demonstrate this objective.*

## STATE OF INDIANA

### OBJECTIVES AND EXTENT OF PLAY

#### OBJECTIVE 1: MOBILIZATION OF EMERGENCY PERSONNEL

Demonstrate the capability to alert fully, mobilize for both emergency facilities and field operations. Demonstrate the capacity to activate and staff emergency facilities for emergency operations.

##### Extent of Play

*The Indiana State Emergency Operations Center (EOC) will be fully activated. The Indiana State Emergency Management Agency (SEMA) dispatcher will implement notification procedures as defined in Ingestion Pathway SOPs. State agency liaisons will be contacted and will report to the State EOC.*

*The State Forward Operations Center (FOC) at Bremen Indiana State Police Post, located outside of Bremen, Indiana, will be activated with State and local personnel. FOC and Sampling Team personnel will be dispatched to the Bremen Post to open the Forward Operations Center.*

#### OBJECTIVE 2: FACILITIES- EQUIPMENT, DISPLAYS, AND WORK ENVIRONMENT

Demonstrate the adequacy of facilities, equipment, displays and other materials to support emergency operations.

##### Extent of Play

*Following activation, the adequacy of facilities, equipment and displays will be demonstrated during performance of activities involved in responding to the emergency.*

*See TAB A for points of review, or portions thereof, that will not be demonstrated.*

#### OBJECTIVE 3: DIRECTION AND CONTROL

Demonstrate the capability to direct and control emergency operations.

##### Extent of Play

*The ability to direct and control emergency response activities will be demonstrated at the State EOC and the State FOC in accordance with the plan and procedures. Coordination will be demonstrated between the State EOC, State FOC, the State Radiological Laboratory and the State of Michigan in accordance with the plan and procedures.*

#### **OBJECTIVE 4: COMMUNICATIONS**

*Demonstrate the capability to communicate with all appropriate emergency personnel at facilities and in the field.*

##### **Extent of Play**

*Indiana will use a variety of communications systems, (fax, commercial telephone, radio) to communicate with other organizations and locations. Communications will be conducted in accordance with the plan and procedures. The contingency memorandum of agreement for the provisions of cellular phones for the sampling teams to communicate with will not be put into affect. Sampling teams will be issued other cellular phones to simulate the agreement.*

#### **OBJECTIVE 5: EMERGENCY WORKER EXPOSURE CONTROL**

*Demonstrate the ability to effectively monitor and control emergency worker radiation exposure.*

##### **Extent of Play**

*Portions of this function will be demonstrated by the FOC and Sampling Teams. Due to the minimal level of contamination expected in Indiana following a D.C. Cook Station accident, many portions of the objective will not be demonstrated. See Tab A for points of review, or portions thereof, that will not be demonstrated.*

#### **OBJECTIVE 11: PUBLIC INSTRUCTIONS AND EMERGENCY INFORMATION**

*Demonstrate the capability to coordinate the formulation and dissemination of accurate information and instructions to the public.*

##### **Extent of Play**

*Following mobilization of the State EOC the capability to formulate and disseminate accurate information and instructions to the public will be demonstrated. Media advisories will be demonstrated. Written notification to the farmers of crop condemnation will also be demonstrated, however their dissemination will be simulated. See TAB A for points of review, or portions thereof, that will not be demonstrated.*

## **OBJECTIVE 12: EMERGENCY INFORMATION – MEDIA**

Demonstrate the capability to coordinate the development and dissemination of clear, accurate information to the news media.

### **Extent of Play**

*Demonstration of this objective occurs primarily at the Michigan Joint Public Information Center (JPIC). Indiana SEMA Public Information personnel present at the State EOC to coordinate with Michigan and D.C. Cook NPP personnel. The Indiana State EOC will provide information and periodic updates to the JPIC staff for use in preparing news briefings. See TAB A for points of review, or portions thereof, that will not be demonstrated. Indiana will not use the EAS system to notify the public, since there is not an immediate danger to the public. Indiana will use media advisories.*

## **OBJECTIVE 13: EMERGENCY INFORMATION – RUMOR CONTROL**

Demonstrate the capability to establish and operate rumor control in a coordinated and timely manner.

### **Extent of Play**

*This objective will be demonstrated by the State through coordination between the JPIC located in Michigan, State EOC and State FOC. The ability to coordinate and address rumors will be demonstrated. See TAB A for points of review, or portions thereof, that will not be demonstrated.*

## **OBJECTIVE 23: SUPPLEMENTARY ASSISTANCE (FEDERAL/OTHERS)**

Demonstrate the ability to identify the need for external assistance and to request such assistance from Federal or other support agencies.

### **Extent of Play**

*This objective will be demonstrated in accordance with the plan.*

## **OBJECTIVE 24: INGESTION EXPOSURE PATHWAY – SAMPLING**

Demonstrate the use of equipment and procedures for the collection and transportation of samples from areas that received deposition for the airborne plume.

### **Extent of Play**

*As a goal, at least one environmental sample of different types (e.g., Water, Dairy, Vegetable) will be collected. All samples will be handled as in an actual emergency and transported to the FOC. Due to the distance involved from the affected area to the Indiana Radiological Laboratory with pre-packaged samples for delivery after a simulated time lag. Prior agreements will be secured concerning any samples taken from private properties, such as farms or food processing plants. Sampling activities will be demonstrated out of sequence with the main scenario time line.*

#### **OBJECTIVE 25: LABORATORY OPERATIONS**

Demonstrate laboratory operations and procedures for measuring and analyzing samples.

##### **Extent of Play**

*Laboratory operations will be demonstrated out of sequence with the main scenario time line. Prepackaged samples will be provided by the delivery vehicle simulating the transportation from the FOC. The Lab staff will accept the samples and analyze them. See TAB A for points of review, or portions thereof, that will not be demonstrated.*

#### **OBJECTIVE 26: INGESTION EXPOSURE PATHWAY – DOSE PROJECTION AND PROTECTIVE ACTION DECISION MAKING**

Demonstrate the capability to project dose to the public for the ingestion exposure pathway and to recommend protective actions.

##### **Extent of Play**

*The dose assessment group at the State EOC, using computerized models, manual computations or a combination of the two, will demonstrate the capability to make dose calculations, using the Indiana Radiological Laboratory analysis of field samples. These data will not be generated by laboratory activities, but provided to the dose analysis group by the controllers.*

*Dose calculations will be provided to the Ingestion Pathway Committee at the State EOC, who will demonstrate protective action decision making, in the formulation of recommendations to the Governor.*

#### **OBJECTIVE 27: INGESTION EXPOSURE PATHWAY – PROTECTIVE ACTION IMPLEMENTATION**

Demonstrate the capability to implement protective actions for the ingestion exposure pathway.

##### **Extent of Play**