

FEB 7 1984

Dmb

Docket No. 50-254  
Docket No. 50-265

Commonwealth Edison Company  
ATTN: Mr. Cordell Reed  
Vice President  
Post Office Box 767  
Chicago, IL 60690

Gentlemen:

We have received the attached Federal Emergency Management Agency (FEMA) letter dated September 2, 1983, and associated final exercise evaluations on the offsite emergency preparedness exercise conducted on May 12, 1983 for Whiteside and Rock Island Counties in Illinois, Clinton and Scott Counties in Iowa, and the States of Illinois and Iowa. This final exercise evaluation lists some recommendations (which are referred to in the FEMA letter and attachments as deficiencies) regarding the offsite emergency response plans for the area around the Quad Cities Nuclear Generating Station. The response of the State of Illinois to the reported recommendations are also attached.

The final FEMA findings with respect to the status of plans and preparedness in the vicinity of your facility have not been received at this point in time; however, based on the performance of the offsite agencies during the exercise, there is reasonable assurance that both State and local governments have an adequate capability to protect the public in the event of a radiological emergency at the Quad Cities Nuclear Generating Station.

We fully recognize that the recommendations to be implemented may involve actions by other parties and political institutions which are not under your direct control. Nonetheless, we would expect the subject of offsite preparedness for the area around the Quad Cities Nuclear Generating Station to be addressed by you as well as others.

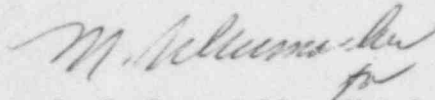
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FEB 7 1984

In accordance with 10 CFR 2.790 of the Commission's regulations, a copy of this letter and the enclosures will be placed in the NRC's Public Document Room.

Sincerely,



C. J. Paperiello, Chief  
Emergency Preparedness and  
Radiological Safety Branch

Attachments: As stated

cc w/attach:


D. L. Farrar, Director  
of Nuclear Licensing  
N. Kalivianakis, Plant  
Superintendent

DME/Document Control Desk (RIDS)  
Resident Inspector, RIII

Phyllis Dunton, Attorney  
General's Office, Environmental  
Control Division

W. Weaver, FEMA, Region V

RIII

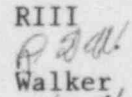
  
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Phillips

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RIII


  
Walker

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RII

  
Hayes

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Paperiello



# Federal Emergency Management Agency

Washington, D.C. 20472

SEP 2 1983

MEMORANDUM FOR: Edward L. Jordan  
Director, Division of Emergency  
Preparedness and Engineering Response  
Office of Inspection and Enforcement  
U.S. Nuclear Regulatory Commission

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

SUBJECT: Final Exercise Reports, Quad Cities Site-Specific  
Offsite Exercise

Attached are the Final Exercise Reports from the Federal Emergency Management Agency (FEMA) Regions V and VII on the May 11, 1983, Quad Cities Nuclear Power Station Offsite Exercise. The State of Illinois exercised on a small-scale, with Rock Island County and Whiteside County exercising at full-scale. The State of Iowa, and Scott and Clinton Counties, exercised at full-scale.

As a result of this joint exercise, FEMA concludes at this time that an adequate level of offsite radiological preparedness has been demonstrated to protect the public in the event of a radiological accident at the Quad Cities Nuclear Power Station. These final exercise reports are provided for your use until FEMA can complete formal review of offsite plans and preparedness in accordance with 44 CFR 350.

Attachments  
As Stated

*Dupe*  
~~8349201395~~



# Federal Emergency Management Agency

Region V 300 South Wacker, 24th Floor, Chicago, IL 60606 (312) 353-1500

MAY 11 1983

MEMORANDUM FOR: Assistant Associate Director, Office of Natural  
and Technological Hazards  
Attention: Megs Hepler, Field Operations Branch

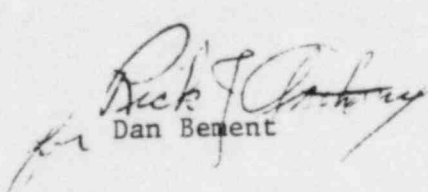
FROM: Acting Chief, Technological Hazards Branch

SUBJECT: Exercise Final Report, Quad Cities Site-Specific  
Offsite Exercise May 11, 1983

Attached is a copy of the Quad Cities May 11, 1983, Exercise Final Report, a copy of the letter transmitting the report to the Illinois Emergency Services and Disaster Agency and a copy of the exercise scenario.

As a result of the exercise the State of Illinois and Rock Island and Whiteside Counties have demonstrated an adequate capability to respond to radiological emergencies. There now is renewed assurance the health and safety of the public can and will be protected in the event of an accident at the Quad Cities Nuclear Power Station.

The report lists and categorizes a minimal number of major and minor deficiencies, mostly in Rock Island County. Those deficiencies have been communicated to the State in the report. We have requested the State provide FEMA Region V with a schedule of corrective actions within 30 days from the date of the transmittal letter. A copy of the State's response will be sent to you upon its receipt and evaluation.

  
Dan Bement

Attachments





# Federal Emergency Management Agency

Region V 300 South Wacker, 24th Floor, Chicago, IL 60606 (312) 353-1500

JUN 24 1983

E. Erie Jones, Director  
Illinois Emergency Services and  
Disaster Agency  
110 East Adams Street  
Springfield, Illinois 62706

Dear Mr. Jones:

Enclosed is a copy of the Exercise Final Report for the Quad Cities Nuclear Power Station exercise conducted May 11, 1983. A copy of the report has been forwarded to the FEMA National office.

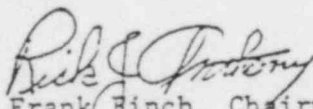
As a result of the exercise it has been reaffirmed that the State of Illinois and Rock Island and Whiteside Counties' emergency organizations can adequately respond to radiological emergencies. There now is renewed assurance that the health and safety of the public can and will be protected in the event of an accident at the Quad Cities Nuclear Power Station.

There are, listed in Part III of the report, deficiencies which require your attention. Their correction will strengthen and enhance the emergency response capability.

Please provide FEMA Region V your response to the deficiencies in a narrative format which reflects the action you propose to take and the projected completion date for each. Your response is due 30 days from the date of this letter.

If you have any questions or wish assistance please contact this office at FTS 372-6011 or 616 968-8142 extension 6011.

Sincerely,

*fr*   
Frank Finch, Chairman  
Regional Assistance Committee

Enclosure

cc: RAC members  
Megs Hepler

EXERCISE FINAL REPORT  
QUAD CITIES NUCLEAR POWER STATION  
JOINT RADIOLOGICAL EMERGENCY  
EXERCISE  
May 11, 1983

EXERCISE PARTICIPANTS

State of Illinois (small scale)  
Rock Island County, Illinois (full scale)  
Whiteside County, Illinois (full scale)

State of Iowa (full scale)  
Clinton County, Iowa (full scale)  
Scott County, Iowa (full scale)

Totals

EVALUATORS

2 Federal  
2 Federal/1 Contract  
1 Federal/1 Contract

Observed by  
FEMA Region VII

5 Federal/2 Contract

Quad Cities Nuclear Power Station

Observed  
by the NRC

Involved States not participating  
Involved local governments not participating

None  
None

Prepared by the:

FEDERAL EMERGENCY MANAGEMENT AGENCY, REGION V  
NATURAL AND TECHNOLOGICAL HAZARDS DIVISION  
TECHNOLOGICAL HAZARDS BRANCH  
Federal Center  
Battle Creek, Michigan 49016

May 17, 1983

Dupe PDR  
8349244398

## PART I

EXECUTIVE SUMMARY

This report contains the findings of an eight member evaluation team who observed and evaluated the emergency response to a simulated radiological emergency at the Quad Cities Nuclear Power Station, Cordova, Illinois, May 11, 1983. The exercise participants included the State of Illinois (small-scale); Rock Island County, Illinois (full-scale); Whiteside County, Illinois (full-scale); State of Iowa (full-scale); Clinton County, Iowa (full-scale); Scott County, Iowa (full-scale); and the licensee, Commonwealth Edison Company/Quad Cities Nuclear Power Station. The U.S. Nuclear Regulatory Commission Region III evaluated the licensee's emergency response on-site at the Quad Cities Nuclear Power Station. The Federal Emergency Management Agency Region VII evaluated the off-site Iowa emergency response.

Both the U.S. Nuclear Regulatory Commission Region III and the Federal Emergency Management Agency Region VII reports will be provided to the participants they evaluated and separate of this report. The Federal Emergency Management Agency Region V is responsible to provide this report to the Director, Illinois Emergency Services and Disaster Agency.

The Federal Emergency Management Agency Region V evaluators were positioned at the principal emergency response centers. The evaluators' findings are summarized in the attached interim critique.

In consideration of the scope of the exercise, the scale of the exercise for each governmental body, and the particular components demonstrated, the State Emergency Services and Disaster Agency and the emergency response organizations of Rock Island and Whiteside Counties and the supporting villages and municipalities adequately demonstrated their capability to effectively respond to a radiological emergency resulting from an accident at the Quad Cities Nuclear Power Station. Some deficiencies were observed but they do not detract significantly from the overall capability.

I. Emergency Operations Facilities and Resources  
(Space, internal communications, displays, security)

State: The State Emergency Operations Center (EOC) (to include communications, displays, etc.) has been evaluated during previous exercises and found adequate for the conduct of emergency operations for an extended period. This being a small-scale exercise no specific evaluation was made of the facility.

Rock Island County: The emergency operation facilities and resources were good. Communications systems were good. It is recommended that the Nuclear Accident Reporting System (NARS) be expanded to include Port Byron and Cordova to provide emergency notification. The Quad Cities Airport is an outstanding facility to support Federal response. The EOC is an outstanding facility. Security of the facility was well handled.

Whiteside County: The Whiteside County EOC was adequate to support emergency operations. Internal communications including message handling and use of wall maps and displays were good. A map showing the distribution of population near the facility has been acquired and posted which corrects a problem from the last exercise. The operations room of the EOC has sufficient space and is adequately equipped to support emergency activities. It is located in a lower-level storage area. There is noisy ventilation equipment there and consequently it was sometimes difficult to hear during staff briefings. Acoustic treatment of walls, ceiling and floors would improve the environment. Security was well handled.

II. Alerting and Mobilization of Officials and Staff  
(staffing, 24-hour capability, alerting timeliness)

State: The State warning point is manned on a 24-hour basis. The State's procedures and equipment are adequate for completing alerting and mobilization of the State emergency response staff in an expeditious manner. Initial warning for the State and local units of government is received via the NARS. Representatives were exchanged with the State of Iowa to carry out EPZ coordinating activities. This being a small-scale exercise for Illinois, all agencies did not send representatives to the EOC. This is acceptable due to the nature of the exercise.

Rock Island County: Alerting and mobilization of the EOC were adequate. The capability for around the clock alerting of organizations and staff was adequate. Although Rock Island Communications failed to notify the Hillsdale Fire District, the Health Administrator and the Township Road Commission. A shift change was demonstrated. The shift replacement for the County School Superintendent was untrained for the assignment. It is recommended that the County Board Chairman and the ESDA Coordinator acquire pagers to make them easier to notify and that county plans be modified to provide for partial activation of the EOC at the "Alert" classification. This would facilitate improved coordination of the decision-making process.

Whiteside County: Staff mobilization procedures were adequately demonstrated by the County Sheriff's Department dispatchers. Following notification of "Site Area Emergency" status at the plant, the dispatchers used a written call list to contact EOC staff and request them to report to the EOC. However, there was not a full demonstration of activation procedures, since many staff members were pre-positioned, and the EOC facility was physically setup in advance. Activation from a "cold start" should be demonstrated in future exercises. Round-the-clock staffing capability was well demonstrated by shift changes at most positions.

III. Emergency Operations Management  
(Organization, control, leadership, support by officials, decision-making)

State: The State EOC is staffed by an experienced professional staff. The ESDA Director exercised leadership and control of emergency operations as the lead agency in the EOC.



Rock Island County: The emergency operations management of the EOC was outstanding, the County Board Chairman is an excellent leader and his commitment inspired the EOC staff.

Staff briefings and staff meetings were frequent and informative. Status boards and procedures were flawless. The presence of the entire EOC staff, including the sheriff and coroner, evidenced a commendable devotion to protecting the public. More explanation to the staff regarding the technical situation on-site and off-site would be beneficial to the response staff.

Whiteside County: The County EOC was fully staffed with representatives of all appropriate County, State, and volunteer organizations. Leadership by the local Emergency Services and Disaster Agency Coordinator was effective. Emergency functions were referred to the appropriate organizations for action.

#### IV. Public Alerting and Notification (Means of Notification - Sirens, Vehicles, or Other Systems, Timeliness)

State: This activity was not demonstrated during the exercise due to the monthly test which was held May 3, 1983. The simulated sounding of the sirens was coordinated with Iowa.

Rock Island County: A simulated demonstration was made of the public alerting and notification. The County ESDA Coordinator notified the Emergency Broadcast Station (EBS) of recommended protective actions to be taken. Simulated notification by sirens and route alerting was given to the public. The sirens were sounded on May 3, 1983. The results of that test are provided as Attachment A to this report.

Whiteside County: The County simulated public alerting and notification via siren and route alerting. Notification was followed promptly by simulated broadcast of instructional messages over WHBF, the local Emergency Broadcast Station. The May 3, 1983, monthly siren test results are included as Attachment A to this report.

#### V. Public and Media Relations

State: The public information representatives from Illinois and their technical backup demonstrated that they are capable of preparing informative and timely news releases. They also demonstrated their capability to respond to queries from the media. There were limited resources available for the media in the Press Center during the exercise. The Center does not have adequate lighting or restroom facilities. The micro-wave phone system did not work well and the number of telephone instruments is insufficient should



there be an actual emergency. The number of electrical outlets was not adequate. Heating and cooling systems for weather extremes did not appear adequate.

Rock Island County: The capability to carry out public and media relations was weak at best. A room at the EOC was set aside for the media. Media spokespersons were designated, but no press conferences were held. No coordination with the Media News Center occurred. No capability was demonstrated for controlling rumors. A demonstration of this entire area is to be exhibited at the next exercise.

Whiteside County: The County Board Chairman, who is the spokesperson at the County EOC, had access to all information at the County. He did not have input into the release of information at the News Media Center. The press releases were received at the EOC via datafax from the News Media Center, but information did not flow to the Center from the County in a like manner. Interaction with the News Media Center is necessary. The County should be requesting information from the State PIO at the Center and passing information along to the State PIO. The coordination between spokespersons is necessary since the County is not represented at the News Media Center. A room is designated for the press in the building. It is not equipped to receive the media and conduct press briefings.

#### VI. Accident Assessment

State: Most of the criteria items in this section were not observed at the State EOC due to the small scale exercise. Effective coordination between ESDA and the Illinois Department of Nuclear Safety (DNS), and their Iowa counterparts was demonstrated before protective actions were announced and implemented.

Rock Island County: Accident Assessment was not demonstrated during the exercise.

Whiteside County: Accident Assessment was not demonstrated during the exercise.

#### VII. Actions to Protect the Public (Sheltering, Evacuation, Reception and Care, Transportation)

State: Because of the exercise design, the downwind areas were in Iowa. Therefore the principal actions to protect the public were in Iowa. Illinois did order an evacuation out to two miles from the utility and recommend the use of stored feed for cattle out to ten miles.

Rock Island County: An adequate capability to protect the public was demonstrated. The correct protective actions were implemented and careful consideration was given to the needs of the mobility impaired. However, little preparation has been made for the use of private tow trucks which would be needed to remove disabled vehicles from evacuation routes. It is recommended that more protective actions be demonstrated in the field during the next exercise.

Whiteside County: Actions to protect the public could not be fully observed during this exercise due to the scenario's wind direction. It was noted by the evaluators through discussions with emergency responders that the capability exists to implement protective measures such as roadblocks, movement of transit-dependent persons, mobility impaired persons, and means of removing impediments to the evacuation process. The Health Department is compiling a comprehensive listing of all persons in the Whiteside County EPZ that need transportation whether it be because of handicaps, living alone, or transportation problems. This listing will reflect the special transportation needs of these individuals.

#### VIII. Health, Medical, and Exposure Control Measures

State: Not observed at the State EOC.

Rock Island County: There was a demonstration of Health, and Medical capabilities by hospital and ambulance services'. The capability was demonstrated by Staff participants at Moline Public Hospital and the Dailey-Gibson Ambulance Transport Services, (Port Byron, Illinois). An on-site worker was simulated injured and radiologically contaminated and transported to the designated hospital. He was received in an isolated area of the hospital, monitored for contamination; decontaminated and remonitored for preparation of additional hospital treatment. A canvass of area hospitals; Lutheran Hospital, Moline; Illini Hospital, Silvis, Illinois and the Franciscan Medical Center, Rock Island, confirms a community medical capability beyond that of the licensee's agreement. These area hospitals are in addition to hospitals within other Illinois Counties that are also prepared to handle contaminated injured patients. The County failed to demonstrate an adequate capability to protect its emergency workers because its equipment totally lacks mid-range self-reading dosimeters, however thermoluminescent dosimeters (TLDs) were distributed. Access control was adequately simulated, but should be demonstrated in the field at the next exercise.

Whiteside County: This section was not observed except relating to the issuance of dosimeters and TLDs. The Sheriff's Department personnel and the EOC staff were issued dosimeters and TLDs with instructions to read and record readings from the dosimeters regularly. The staff is familiar with their use.

#### IX. Recovery and Reentry Operations

State: The implementation of reentry/recovery procedures was effectively coordinated with the utility and Iowa. The NARS was used to relay this information to the Illinois counties.

Rock Island County: After receiving the NARS message on recovery and reentry, the ESDA Coordinator asked each agency what activities it was engaged in. It was explained by each organization that their agency was beginning recovery. The Sheriff said the roadblocks were being removed. The Sheriff Department should keep the simulated officers at access control points until all the residents have returned. Reentry was not demonstrated.

Whiteside County: The scenario limited the protective actions demonstrated by the Whiteside County emergency response staff to placement of cattle on stored feed. An exercise scenario to require evacuation of Whiteside County residents would lend itself to a more thorough demonstration of reentry/recovery capabilities.

#### X. Relevance of the Exercise Experience

State: The State EOC staff was in support of Rock Island and Whiteside Counties, Illinois, the State of Iowa and Clinton and Scott Counties, Iowa.

The exercise at the State EOC was of benefit to the participants particularly when it required coordination between the Illinois and Iowa responders. The same coordination between the states was demonstrated at the News Media Center. The State, when developing future scenarios, should provide for free-play problems to be injected into exercise-play at the county level.

Rock Island County: The scenario was adequate to test the capability of Rock Island County. It tested the integrated capabilities and major portions of the response elements. The participants benefited from the exercise. The exercise would have been more thorough and the staff would have benefited much more if a greater number of free-play problems had been included.

Whiteside County: The scenario was adequate to exercise the capability of Whiteside County responders. The exercise would have been more thorough, and the staff would have benefited more if additional exercise problems would have been introduced apart from those in the written scenario.

#### CONCLUSION

As a result of the May 11, 1983 Quad Cities Nuclear Power Station exercise there is reasonable assurance that the health and safety of the public can and will be protected in the State of Illinois and the Counties of Rock Island and Whiteside.

## PART II

NARRATIVE DESCRIPTIONS AND SUMMARY LISTINGS

Resulting from the exercise each team evaluating the demonstration of capability developed a consolidated finding. Those results are as follows:

SUMMARY I Emergency Operations Facilities and Resources

State: The State Emergency Operations Center has been evaluated during previous exercises and is adequate for the conduct of emergency operations for an extended period.

Rock Island County: The emergency operation facilities and resources are good. The communications systems generally are good, although it is recommended that the Nuclear Accident Reporting System be expanded to include Port Byron and Cordova. The Quad Cities Airport is an outstanding facility to support Federal response. The EOC is outstanding. The method of handling security is outstanding.

Whiteside County: The County EOC is adequate to support emergency operations. Internal communications are good, including message handling and use of wall maps and displays. A map showing the distribution of population near the facility has been acquired, which corrects a deficiency from the last exercise. The emergency operations room has enough space and was adequately equipped to support emergency activities. However, it is located in a lower-level storage area which has bare walls and floor. There is noisy ventilation equipment there, consequently it was sometimes difficult to hear during staff briefings. Noise reduction is needed. Security was well handled.

Communications with the utility, the State and with nearby local governments were available over several radio channels and the NARS telephone.

F 1 b Adequacy of Communications Systems (Primary and Backup)  
with Continuous State/Local Governments within the EPZs

State: The Communications systems both primary and secondary have been evaluated during previous exercises and determined to be adequate. A system for taping all messages has been newly installed and was satisfactorily tested during this exercise. Communications were timely.

Rock Island County: Communications between Rock Island EOC and other agencies were good. The Primary System is at Rock Island Communications Command which has a NARS line and a police radio, a scanner and a large well trained professional staff who are on duty 24 hours per day. In addition, the EOC has some backup radio equipment as well as two NARS lines and a tele-copier. Communications were timely.



Whiteside County: Communications with the State are available via the State ESDA radio frequency, NARS, the "ISPERN" (Illinois State Police Emergency Radio Network) radio frequency, and the telephone. Communications with Albany and Rock Island County are available over local government radio, NAWAS and telephone. Only the NARS was used regularly during the exercise.

F 1 c Adequacy of Communications, as Appropriate, with Federal Emergency Response Organizations

State: The communications systems both primary and secondary have been evaluated during previous exercises and determined to be adequate. A system for taping all messages has been newly installed and was satisfactorily tested during this exercise. Communications were timely.

Rock Island County

Not observed.

Whiteside County

Not observed.

F 1 d Adequacy of Communications Systems between the Nuclear Facility and Near-Site EOF, and State and for Local EOCs

State: The communications systems both primary and secondary have been evaluated during previous exercises and determined to be adequate. However, a system for taping all messages has been newly installed and was satisfactorily tested during this exercise. Communications were timely.

Rock Island: The capability exists to communicate with the local jurisdictions. It is suggested that the NARS system be extended to include the local jurisdictions. Therefore, responses could be more timely.

Whiteside County: Communication with the utility was via the NARS which was adequate. The communications operator complained that it was difficult to hear the messages. Communication with the EOF was via commercial phone line, on which a datafax machine was used.

C 1 c Adequacy of Specific State or Local Resources Needed to Support Federal Response

State

Not observed.



Rock Island County: The Quad Cities Airport, which can accommodate 727's, is about five minutes from the EOC.

Whiteside County

Not observed.

Adequacy of EOC working Space and Amenities

State: This criteria has previously been evaluated and found to be adequate.

Rock Island County: There is a sufficient number of tables, chairs in the EOC. Lighting is adequate as well as working space. Ventilation was very good.

Whiteside County: The County EOC was recently moved from the older county courthouse to the new county building on a sub-level. It is now located in a room which is unfinished. Accoustics are very poor resulting in a very noisy environment. Working space is adequate.

Adequacy of EOC Internal Communications, Including Equipment, Displays, and Message-Handling Procedures

State: NARS messages were recorded and logged, copies were made and distributed to all participants. Telephone communications were recorded and logged. Copies of the log were distributed periodically to all participants.

Rock Island County: Message handling was satisfactory. Status boards were well kept and easily visible. There were frequent briefings by the County Board Chairman.

Whiteside County: Message handling was adequate - NARS messages and public information releases were duplicated and distributed to participants. A status board was displayed prominently and was kept up to date. Emergency classifications were posted at all times. Areas where protective actions were ordered were displayed on a sector map. Message handling didn't get much of a workout.

Adequacy of EOC Security Measures

State: This criteria has previously been evaluated and found to be adequate.

Rock Island County: Security was well handled.

Whiteside County: All persons were checked in and out by a security guard at the door. All persons signed in and out and were issued badges.

H 3      Overall Adequacy of the Emergency Operating Center (EOC)

State: The EOC is designed for nuclear attack. It is fully adequate to support radiological emergency operations resulting from an accident at a nuclear power station.

Rock Island County: The County EOC is outstanding for direction and control during an emergency.

Whiteside County: The EOC was adequate with enough space and was adequately equipped to support emergency activities. It does need finishing to reduce the noise level. It was difficult to hear briefings.

J 10 a      Adequate Maps Displayed Showing Evacuation Routes, Sampling Points, Relocation Centers and Shelter Areas

State: Maps showing evacuation routes, sampling points, relocation centers, and shelter areas are displayed in the EOCs.

Rock Island County: All maps were well displayed and easily visible for all persons.

Whiteside County: All maps were well displayed. The relocation center map displays the capacities of the centers.

J 10 b      Adequate Maps Displayed Showing Population Distribution Near Nuclear Facility by Evacuation Areas

State: A map showing population distribution within the 10-mile EPZ by areas is displayed in the EOC.

Rock Island County: Maps were present and well displayed.

Whiteside County: Population was shown by sector and radius from the plant; 2 miles, 2-5 miles, and 5-10 miles.

SUMMARY II      Alerting and Mobilization of Officials and Staff (Staffing, 24-Hour Capability, Alerting Timeliness)

State: The State Warning Point is manned on a 24-hour basis. Initial warning for the State and the local units of government is received via the NARS. The State's procedures and equipment are adequate for completing alerting and mobilization of the State emergency response staff in an expeditious manner.

Representatives were exchanged with the State of Iowa.

This being a small-scale exercise for the State, all agencies did not send representatives to the EOC.

Rock Island County: Alerting and mobilization of the EOC were adequate. The capability for around the clock alerting of organizations and staff generally was adequate, although RICOMM failed to notify the Hillsdale Fire District, the Health Administrator and the Township Road Commissioner. A shift change was demonstrated. The shift replacement for the County School Superintendent was untrained for the assignment. It is recommended that the County Board Chairman and the ESDA coordinator acquire pagers to make them easier to notify and that county plans be modified to provide for partial activation of the EOC at the "Alert" classification. This would facilitate improved coordination of the decision-making process.

Whiteside County: Staff mobilization procedures were demonstrated by the County Sheriff's Department dispatchers. Following notification of a "Site Area Emergency" classification at the Nuclear Power Station, the dispatchers used a written call list to contact EOC staff and requested them to report to the EOC. There was not a full demonstration of activation procedures since many staff members were prepositioned and the EOC facility was physically set up in advance. Activation from a "cold start" should be demonstrated in the next exercise.

Round-the-clock staffing capability was adequately demonstrated by shift changes at most positions.

A 1 e     Capability for 24-Hour Initial Emergency Response and  
Manning of Communications

State: The Illinois ESDA communications center is manned on a 24-hour basis.

Rock Island County: Rock Island Communications Center is manned 24 hours per day with a well-trained staff.

Whiteside County: The Sheriff's Department dispatch office receives the initial NARS call. The communications center is staffed 24 hours a day.

A 4     Capability for 24-Hour Continuous Emergency Response  
Operations

State: The Illinois ESDA communications center is manned on a 24-hour basis.

Rock Island County: A complete shift change of the emergency staff was demonstrated on a staggered basis. Replacement personnel were briefed, however replacement for the county school superintendent had no formal association with the school system, no formal applicable training and would not necessarily be aware of the kinds of problems that might arise in protecting the school children.

Whiteside County: Most of the personnel in the EOC underwent a shift change; the Health Department, County Board Chairman, ESDA Coordinator, Highway Department, Red Cross, Public Information Officer, and Coroner. IDNS and Superintendent of Schools did not demonstrate a shift change. Some second shift personnel were not as well trained as their first-shift counterparts.

E 1      Adequacy of Procedures used for Notification of Emergency Response Organizations Including Means for Verification of Messages

State: This being a small scale exercise a full demonstration was not practical. Some staff members were prepositioned. Notification procedures were activated which caused personnel to respond and mobilize.

Rock Island County: The County Communications Center notified Port Byron and Cordova of the "Unusual Event" and the "Alert" classifications, but did not notify the Hillsdale Fire District as written in the IPRA.

Whiteside County: Personnel were notified via telephone, according to a call list kept at the Sheriff's Dispatch Office. The call list has work and home phone numbers. It lists alternate personnel in case primary personnel cannot be contacted. In one case, (the Highway Department) both the primary and alternate duty officer were unavailable, but they did respond.

E 2      Adequacy of Procedures Used for Alerting, Notifying and Mobilizing Emergency Response Personnel

State: This being a small scale exercise a full demonstration was not practical. Some staff members were prepositioned. Notification procedures were activated which cause personnel to respond and mobilize.

Rock Island County: The procedures were consistent with the plan, but they did not contact the Health Administrator or the County Highway Commissioner.

Whiteside County: Personnel were notified via telephone, according to a call list kept at the Sheriff's Dispatch Office. The call list has work and home phone numbers. It lists alternate personnel in case primary personnel cannot be contacted. In one case, (the Highway Department) both the primary and alternate duty officer were unavailable, but they did respond.



C 2 a If Appropriate, Timely Dispatch of a Representative To Licensees Near-Site EOF

State: Representatives were exchanged with the State of Iowa.

Rock Island County

Not observed

Whiteside County

Not observed

F 1 a Adequacy of Emergency Response Communications Equipment Used With Prompt Activation

State: The equipment has been evaluated during previous exercises and found adequate.

Rock Island County: The capability exists for 24-hour notification. The emergency network is manned by a RICOMM dispatcher. The primary link is NARS with radio backup.

Whiteside County

Not observed

F 1 Adequacy of Communications Equipment Used for Alerting and Activating Emergency Response Personnel

State: The equipment has been evaluated during previous exercises and found adequate.

Rock Island County: The equipment to alert and activate emergency personnel was good. All the EOC staff and alternates have primary and backup telephone numbers listed with RICOMM. The Sheriff, Coroner, Assistant Coroner and RICOMM Director have pagers, however the County Board Chairman nor the ESDA Coordinator have pagers. Given their importance, these individuals should be provided with pagers.

Whiteside County: Commercial telephones were used. While some personnel may be reached via radio, telephones are relied on. This could be a problem in an emergency if phone lines are unavailable. The staff live and work nearby, so a squad car could be sent for them. For very fast-breaking emergencies, it would be useful to have a page-call system for key emergency staff.



F 2      Capability to Communicate with Fixed and Mobile Medical Support Facilities

## State

Not observed

Rock Island County: An outstanding capability to communicate with ambulances and local hospitals was demonstrated by RICOMM.

## Whiteside County

Not observed

H 4 Demonstration of Timely and Efficient Activation and Staffing of EOCs and other Facilities

State: Some personnel were prepositioned. The notification procedures were activated and those agencies not present responded promptly.

Rock Island County: The EOC was staffed during the "Alert" classification, although the plan provides for county officials and emergency workers to report to the EOC when a "Site Area Emergency" is declared. It is recommended that the county plan be revised to reflect EOC activation when these officials receive notification of the "Alert" classification.

Whiteside County: Activation and staffing was not demonstrated. The EOC was set up in advance and many staff were prepositioned.

SUMMARY III      Emergency Operations Management  
                          (Organization, Control, Leadership, Support by Officials,  
                          Decisionmaking)

State: The State EOC is staffed by an experienced professional staff. The Illinois ESDA Director exercised leadership and control of emergency operations as the lead agency in the EOC.

Rock Island County: The emergency operations management of the EOC was outstanding. The County Board Chairman is an excellent leader, and his committment appeared to inspire the EOC staff. Briefings and staff meetings were frequent and informative. Status boards and procedures were flawless. The presence of the entire planned EOC staff, including the Sheriff and Coroner, evidenced a commendable devotion to protecting the public. More explanation to the staff of the technical situation onsite and offsite would be beneficial.

Whiteside County: The County EOC was fully staffed, with representatives of all appropriate County, State, and volunteer organizations present. Leadership by the local ESDA coordinator was effective and emergency functions were referred to the appropriate organizations for action. Full scale exercises should demonstrate the full capability. The scenario was written and approved to accommodate the demonstration of Iowa's capability in Region VII, and could not fully involve all the counties in both Region VII and V.

A 1 a      Evidence that Specific Organizations Have Been Adequately Established as Part of Overall Response

State: The State plan assigns responsibility for emergency response to various state agencies.

Rock Island County: The organizations are established in accordance with the county plan.

Whiteside County: Representatives of the following were at the County EOC: IDNS, IESDA, County Board Chairman, Superintendent of Schools, Sheriff's Department, Health Department, Highway Department, Coroner, Red Cross. Staff were aware of their duties.

A 1 d      Demonstration That a Specific Individual, by Title, was Effectively in Charge of Emergency Response

State: The State plan provides for emergency operations management and was effectively demonstrated during this exercise.

Rock Island County: The County Board Chairman was in charge of the response.

Whiteside County: The County ESDA Coordinator was clearly in charge of operations. His shift relief (from the Health Department) was not as visible as a coordinator of activities.

A 2 a      Demonstration That Primary and Support Functions and Responsibilities have been Assigned to Specific Organizational Elements

State: The State plan assigns primary and support functions to various State agencies. This was demonstrated during the exercise.

Rock Island County: There was a good demonstration of the assignments of responsibilities. They were carried out in an efficient manner. Those present in the EOC were the County

Board Chairman, the Health Department, the Highway Department, the County Coroner, the Civil Air Patrol, the Red Cross, the Regional School Superintendent, the Sheriff Department and the ESDA Coordinator.

Whiteside County: The demands for response were referred to the appropriate organization for action. The IDNS representative gave briefings on the protective action orders and the radiological situation. The County Board Chairman was consulted prior to activation of the PA&NS. The Sheriff's Department simulated route alerting.

C 1 a Evidence That a Specific Person has been Authorized to Request Federal Assistance (State Only)

State: The State plan assigns responsibility and authority for requesting federal assistance. A specific individual is designated.

D 3 An Emergency Classification System was Effectively Used and was Consistent with that of the Utility

State: The State and the utility are both using the classification system described in NUREG 0654/FEMA Rep. 1, Revision 1.

Rock Island County: The emergency classification is consistent with the State and utility and was used and displayed at all times.

Whiteside County: The Emergency classifications were posted at all times and are consistent with that used by the utility.

D 4 Adequate Written Procedures are used for Emergency Actions Consistent with Facility Recommendations and Local Offsite Conditions

State: The State has adequate written procedures for implementing PAG's.

Rock Island County: Each EOC staff member had the relevant part of the County plan at his/her station.

Whiteside County: Each participant had a notebook containing written procedures along with message logs and other pertinent documents. This is a good way to ensure that reference information is readily available.

Demonstration of Effective Coordination Between Emergency Response Director and Staff, Through Oral Briefings, Staff Meetings, Etc.

State: Periodic briefings were held, involving an exchange of information among exercise participants.

Rock Island County: The County Board Chairman held regular briefings for the staff and ask for updates by each staff member. In addition he conducted frequent staff meetings to prepare for possible upcoming protective action. It is recommended in future exercises the wind direction and meterological data be explained to the staff.

Whiteside County: Briefings were held, but somewhat irregularly. They were adequate for the situation, but there was relatively little to coordinate.

Adequacy of Support and/or Participation by Elected Officials

State: Being a small scale exercise at the State no elected officials visited the EOC. The governors office and members of the State senate were contacted by the ESDA Director.

Rock Island County: The County Board Chairman, Sheriff, Coroner -- all elected officials -- not only appeared at the EOC, but staffed their positions personally.

Whiteside County: The County Board Chairman was present and participated in the exercise.

SUMMARY IV      Public Alerting and Notification (Means of Notification - Sirens, Vehicles, or Other Systems)

State: Illinois ESDA coordinated the simulated sounding of the sirens with Iowa.

Rock Island County: An acceptable demonstration was made of the public alerting and notification. The County ESDA Coordinator notified the EBS station of protective actions. Simulated notification by sirens and route alerting was given to the public. The sirens were sounded on May 3, 1983. The test results are included as Attachment A.

Whiteside County: The County simulated public alerting and notification via siren and route alerting. The May 3, 1983, monthly siren test results are included as Attachment A. Notification was followed promptly by simulated broadcast of instructional messages over WHBF, the local EBS broadcast station.



E 5

Evidence of a Reliable System for Dissemination to the Public of Appropriate Information Received from the Licensee, e.g., EBS

State

Not observed

Rock Island County: The County ESDA Coordinator contacted WHBF (EBS) radio station to have the station alert the public of possible evacuation.

Whiteside County: EBS messages were formulated promptly on prepared forms, and contained appropriate information. EBS broadcast was simulated.

E 6

Adequacy of Means Used for Notification & Prompt Instruction to the Public in the Plume EPZ (within 15 minutes)

State: The simulated sounding of the sirens was coordinated with Iowa.

Rock Island County: The Sheriff Department dispatched cars to notify the public in the effected areas. Sirens were simulated. They were tested on May 3, 1983. It should be noted it took 15 minutes to receive and verify the message announcing the "General Emergency". While no delay beyond what was allowed occurred, this time should be shortened, perhaps by limiting the verification call to the essentials of the NARS message.

Whiteside County: Simulated notification was ordered and was followed promptly by instructions on EBS. There was evidence of an operational problem. The sequence of events leading up to the first public notification was immediately following the "Site Area Emergency" declaration from the plant. The State of Illinois decided to initiate public notification (contrary to plan) on the basis of a conference with Iowa. The State contacted the local ESDA Coordinator, who conferred with the County Board Chairman and then simulated sounding the sirens. If the State requires public notification on the basis of a "Site Area Emergency", then the ESDA Coordinator and County Board Chairman should report to the EOC at the "Alert" classification, or an expedient procedure for siren activation should be written into the SOPs, similar to those for a "General Emergency". Otherwise, the 15-minute prompt notification requirement is not likely to be met.

The results of the Rock Island County and Whiteside County May 3, 1983, test is Attachment A.



E 7      Effective Use of Instructional Messages for the Public in Affected Areas

State

Not observed

Rock Island County

Not observed

Whiteside County: Instructional messages from the plan were used -- they are well-drafted and complete. Also, the ESDA Coordinator recognized the need to describe designated protective action areas in terms of familiar landmarks and boundaries.

J 10 c      Adequacy of Means Used for Notifying All Segments of Transient and Resident Population

State

Not observed

Rock Island County: The resident population was notified by the EBS station. Sirens sounding was simulated. The Sheriff Department simulated dispatching cars to warn the public. Port Byron Fire Department simulated dispatching vehicles for public notification.

Whiteside County: Notification was simulated. Not observed.

SUMMARY V      Public and Media Relations (Publications, Press Facilities, Media Briefings, Release Coordination)

State: The public information representatives from the State and their technical back up demonstrated that they are capable of preparing informative and timely releases. They also demonstrated their capability to respond to queries from reporters.

There were limited resources available for media used during the exercise.

The building used for media information does not have adequate lighting or rest-room facilities. The micro-wave phone system did not work well and the number of instruments was insufficient should there be an actual event. The number of electrical outlets were not adequate. Heating and cooling systems for weather extremes did not appear adequate.

Rock Island County: The capability to carry out public and media relations was weak. A room at the EOC was set aside for a media center. Media spokespersons are designated. No press conferences were held. No coordination with the JPIC occurred, and no capability was demonstrated for controlling rumors. Complete demonstration of this entire area must be made at the next exercise.

Whiteside County: The County Board Chairman is the spokesperson at the County EOC. He had access to all information at the County. He did not have input into the release of information at the JPIC. The press releases were received at the EOC via datafax from the JPIC but information did not flow to the JPIC from the County in a like manner. Interaction with the JPIC is necessary. The County should be requesting information from the State PIO at the JPIC and passing information along to the State PIO from the County. The coordination between spokespersons is necessary and vital since the County is not represented at the JPIC.

Although a room is designated in the building, it is not equipped to receive media and conduct press briefings.

G 1      Evidence of Dissemination of Information to the Public, Within the Last Year

State: The utility indicated that a copy of "What To Do In Case Of A Nuclear Station Emergency" was mailed to all residents in the 10 mile EPZ during December 1982. The State of Illinois is preparing a brochure on what to do in any emergency. This publication will be distributed to the media.

Rock Island County: A sampling of households, public and private businesses indicates the brochure "What To Do In Case Of A Nuclear Station Emergency" at the Quad Cities Nuclear Power Station has been distributed in the Illinois/Iowa 10 mile EPZ within the last year. This information is provided as a result of a survey conducted by the Exercise Director.

Whiteside County: The same comment for Rock Island County applies to Whiteside County.

G 2      Evidence of a Public Information Program for Permanent and Transient Population in the Plume EPZ, such as Posted Notices, etc.

State

Not observed

Rock Island County: A spot check of public and private recreation areas gives indication that materials are provided to those entering the area.

Whiteside County: A spot check of public and private recreation areas gives indication that materials are provided to those entering the area.

G 3 a      Appropriate Points of Contact for the Media Have Been Designated

State: This element was adequately demonstrated by the utility and the States.

Rock Island County: As per the plan the County media center is located at the County EOC. There were no press conferences held at the county level.

Whiteside County: The County Building does have a room designated as the "press room".

Adequacy of Joint Media Facility, Where Appropriate

State: The Joint Press Information Center is strictly second class; no comparison to the EOF next door. The building is a Commonwealth Edison Company garage and storage building. The building is lacking in protection from the elements of weather with respect to heating, cooling, and ventilation. Adequate lighting is lacking. There were provisions for seating only 24 persons. Only one or two of a dozen phones were usable. It was almost impossible to make calls. A complicated series of numbers had to be dialed, utilizing Commonwealth Edison's Chicago prefix number. Media personnel were aggravated by the complication. There is no backup power supply such as is available in the EOF.

Rock Island County

Not observed

Whiteside County

Not observed

Adequacy of Issued Press Releases

State: Releases were well done and timely with no major time lags or differences in the releases provided by the State and the utility. The utility's first three releases were prepared in Chicago which resulted in some delay in getting the information to the reporters.

Rock Island County

Not observed

Whiteside County: There were only four press releases during this exercise and none were originated by the County PIO. More coordination between spokespersons is needed.

C 4 a

A Media Spokesperson has been Designated who has Access to all Necessary Information

State: Spokespersons are designated and performed their jobs well. The Commonwealth Edison technical representative did an outstanding job. The State of Illinois PIO missed the 1:25 p.m. briefing. A CECO representative answered inquiries that should have been answered by the Illinois representative.

Rock Island County: The County Board Chairman has been designated as the media spokesperson with the ESDA Coordinator as the alternate. No effort was made to demonstrate this activity.

Whiteside County: The press information officer at the County had access to all information at the County and a phone was available for his use at the EOC. It was not apparent that his input was made to releases coming from the JPIC. He did not actively participate in the press information function. More training is indicated for the person acting as PIO.

G 4 b

Adequacy of Arrangements for Exchange of Information Among Spokespersons

State: Coordination and exchange of information between spokespersons was good and timely. The first briefing could have been somewhat earlier, it was held at 11:00 a.m.

Rock Island County

Not observed

Whiteside County

Not observed

G 4 c

Adequacy of Coordinated Arrangements for Rumor Control Measures

State

Not observed

Rock Island County: No formal rumor control measures have been developed and none were implemented. Since most calls from the public probably would come into RICOMM on the 911 number, some procedure must be developed for RICOMM.

Whiteside County

Not observed

SUMMARY VI

Accident Assessment (Staff and Field Operations, Monitoring, Equipment, Technical Calculations, Use of PAGs)

State: Most of the criteria items in this section were not observed at the State EOC. Effective coordination between ESDA, DNS and their Iowa counterparts was demonstrated before protective actions were announced and implemented.



Rock Island County

Not observed

Whiteside County

Not observed

H 7      Adequacy of Offsite Radiological Monitoring InstrumentsState

Not observed

Rock Island County

Not observed

Whiteside County

Not observed

H 12      An Adequate Central Point has been Established for Receipt  
and Analysis of Field Monitoring Data and Sample MediaState

Not observed

Rock Island County

Not observed

Whiteside County

Not observed

I 7      Adequacy of Capability and Resources for Field Monitoring  
Within the Plume EPZState

Not observed

Rock Island County

Not observed

Whiteside County

Not observed

- I 8      Adequate Capability to Make a Rapid Assessment of Magnitude  
& Location of Liquid or Gaseous Radiological Hazards

State

Not observed

Rock Island County

Not observed

Whiteside County

Not observed

- I 9      Capability for Measurement of Radioiodine Concentrations In  
Plume EPZ Under Field Conditions to 10 F-7 (State Only)

State

Not observed

- I 10      Capability for Relating Measured Parameters to Dose Rates  
and Estimated Integrated Doses (State Only)

State

Not observed

- I 11      Capability for Locating and Tracking Airborne Radioactive  
Plume with Aid of Federal and/or State Resources (State  
Only)

State

Not observed

- J 10 m      Capability to Recommend, Protective Action, Based on PAGs  
in Plume EPZ (State Only)

State: Illinois Department of Nuclear Safety in consultation with the utility and Iowa State agencies evaluated the off-site situation. They then recommended protective actions and/or concurred with those proposed by Iowa.

- C 3      Evidence of Availability and Capability of Radiological  
Laboratories (State Only)

Not observed

## SUMMARY VII

Actions to Protect the Public (Sheltering, Evacuation, Reception and Care, Transportation)

State: Because of the exercise design, the downwind areas were in Iowa. Therefore the principal actions to protect the public were in Iowa. Illinois did order an evacuation out to two miles from the utility and recommend the use of stored feed for cattle out to ten miles.

Rock Island County: The adequate capability to protect the public was demonstrated. The correct protective actions were implemented and careful consideration was given to the needs of the mobility impaired. However, little preparation has been made for the use of private tow trucks which would be needed to remove disabled vehicles from evacuation routes. It is strongly recommended that more protective action be demonstrated at the next exercise in the field rather than being simulated.

Whiteside County:

The evaluators, through discussions with emergency responders, judge that the capability exists to implement protective measures such as roadblocks, movement of transit-dependent persons, mobility impaired persons, and means of removing impediments to the evacuation process.

The Health Department is compiling a comprehensive listing of all persons in the Whiteside County 10 mile EPZ that need transportation whether it be because of handicaps, living alone, or transportation problems. The listing will reflect the special transportation needs of those individuals.

J 2

Coordination with Utility for Movement of Onsite Individuals to Offsite LocationsState

Not observed

Rock Island County

Not observed

Whiteside County

Not observed

J 9

Capability for Implementation of Protective MeasuresState

Not observed

Rock Island County: An adequate capability within the EOC was demonstrated to implement protective actions. However, the scenario only required two protective actions, putting animals on stored feed and evacuating 133 people, both of these actions were simulated. A more thorough demonstration should be made of this element by more actual performance at the next exercise.

Whiteside County

Not observed

J 10 d

Adequacy of Methods Used for Protecting Mobility Impaired Persons, Including Institutionally ConfinedState

Not observed

Rock Island County: A list of four mobility impaired persons has been compiled from County Health Department records and conversations with the police departments and ambulance services. None of these people were in the 10 mile EPZ. It is recommended that local media be requested to run public service announcements inviting those without transportation to call the Health Department to be added to the list.

Whiteside County

Not observed

J 10 g

Adequacy of Methods Used for Implementing Relocation of PopulaceState

Not observed

Rock Island County: The correct decision to evacuate the 2 mile EPZ was promptly made and executed within the EOC. However it is strongly recommended that an actual evacuation of some people be done at the next exercise so that this capability can be tested more thoroughly.



Whiteside County

Not observed

J 10 k Adequacy of Organizations Identification of and Means for  
Dealing with Potential Impediments to Evacuation

State

Not observed

Rock Island County: The Highway Department would remove trees, snow, etc., if it blocked the evacuation routes. The police would remove disabled vehicles by calling in tow trucks. While the representative of the Sheriff Department felt the towing companies would respond, no letter of agreement exists, the tow truck operators have had no radiological training, and they have never actually agreed to enter an area of potential radiological hazard to remove disabled vehicles. Towing operators have not been provided dosimetry.

Whiteside County

Not observed

J 11 Adequacy of Protective Measures in Ingestion EPZ, Including  
Dairy Facilities, Food Processing Plants, etc. (State Only)

State: The release did not impact on the ingestion EPZ in Illinois. A recommendation to place cattle on stored feed within two miles of the power plant was issued at 10:36 a.m. This was later extended out to ten miles. The NARS form, March 1981, item 8M needs to be revised to require sheltering of livestock as well as placing them on stored feed.

J 10 h Adequate Relocation Centers have been Established at Least  
5 Miles and Preferably 10 Miles Outside the Plume EPZ

State: Most but not all relocation centers are located more than five miles outside the ten mile EPZ.

Rock Island County: All relocation centers in Rock Island County shown on the maps in the EOC are located outside of the ten mile EPZ.

Whiteside County: The designated relocation centers to be used in Whiteside County are twenty miles from the plant.

Adequacy of Facilities, Supplies & Equipment at Relocation  
and/or Mass Care Centers

State

Not observed

Rock Island County

Not observed

Whiteside County

Not observed

Adequacy of Staffing at Relocation and/or Mass Care CentersState

Not observed

Rock Island County

Not observed

Whiteside County

Not observed

J 12

Adequacy of Procedures for Processing Evacuees in Relocation Centers, Including Health Care, Decontamination and Radiological Monitoring, etc.State

Not observed

Rock Island

Not observed

Whiteside County

Not observed

SUMMARY VIII Health, Medical, and Exposure Control Measures (Excess Control, Adequacy of Equipment, Dosimetry, Use of KI)State

Not observed

Rock Island County: There was demonstration of Health, and Medical capabilities by hospital and ambulance services. The capability was demonstrated by Staff participants at Moline Public Hospital and the Dailey-Gibson Ambulance Transport Services, (Port Byron, Illinois). An on-site worker was simulated injured and radiologically contaminated and transported to the designated hospital. He was received in an isolated area of the hospital, monitored for contamination,

decontaminated and remonitored for preparation of additional hospital treatment. A canvass of area hospitals; Lutheran Hospital, Moline; Illini Hospital, Silvis, Illinois and the Franciscan Medical Center, Rock Island; confirms a community medical capability beyond that of the licensee's agreement. These area hospitals are in addition to hospitals within other Illinois Counties that are also prepared to handle contaminated injured patients. The County failed to demonstrate an adequate capability to protect the emergency workers because of a lack of mid-range self-reading dosimeters. Thermoluminescent dosimeters (TLDs) were distributed. Access control was adequately simulated, but should be demonstrated in the field at the next exercise.

Whiteside County: The Sheriff's Department personnel and the EOC staff were issued dosimeters and TLDs with instructions to read and record readings from the dosimeters regularly. The staff is familiar with their usage.

J 10 e     Adequacy of Provisions for Use of KI for Emergency Workers  
and Institutionalized Persons in Plume EPZ

State

Not observed

Rock Island County

Not observed

Whiteside County

Not observed

J 10 f     Adequacy of Methods Used in Making Decisions to Administer  
KI to Central Population

State

Not observed

Rock Island County

Not observed

Whiteside County

Not observed

J 10 J     Adequacy of Control of Access to Evacuated Areas

State

Not observed

Rock Island County: Three access control points were simulated to seal off the two mile EPZ. This activity should be demonstrated with personnel and equipment deployment at the next exercise.

Whiteside County

Not observed

K 3 a Adequacy of a 24 Hour A Day Capability to Determine Dose Received by Emergency Workers

State

Not observed

Rock Island County: The dosimeters on hand are CDV-742's. Each organization has dosimeters, TLDs and record cards for their people. They are trained on their use. It is recommended that 2-200 low range dosimeters be obtained.

Whiteside County

Not observed

K 3 b Demonstration of Adequate and Frequent Emergency Worker Dosimeter Readings & Maintenance of Dosage Records

State

Not observed

Rock Island County

Not observed

Whiteside County: Each agency which has emergency response duties has dosimetry sufficient to issue at least one device to each worker. Each agency is responsible to record readings periodically and maintain records. Records ultimately are submitted to the Illinois Department of Nuclear Safety. If during a radiological event workers exceed safe level readings, the IDNS at the State Forward Staging Area, Riverdale School, is notified.

K 4 Evidence That an Adequate Decision Chain has been Established to Authorize Exposure for Emergency Workers in Excess of PAGs

State

Not observed



Rock Island County

Not observed

Whiteside County

Not observed

K 5 a Evidence That Appropriate Action Levels Have Been Specified  
for Determining Need for DecontaminationState

Not observed

Rock Island County

Not observed

Whiteside County

Not observed

K 5 b Adequacy of Measures for Decontamination of Emergency Personnel,  
Supplies, and Equipment, and for Waste DisposalState

Not observed

Rock Island County

Not observed

Whiteside County

Not observed

L 1 Adequate Capability Demonstrated by Local and/or Backup  
Hospital and Medical Services for Handling PersonnelState

Not observed

Rock Island County: There was a demonstration of proper handling of contaminated injured persons from the Quad Cities station by Moline Public Hospital and the Dailey-Gibson Ambulance Transport Services (Port Byron, Illinois). An onsite station worker was transported via ambulance to the hospital. There he

was isolated, monitored, decontaminated, remonitored, and processed for further treatment by hospital staff. It is recommended that exercise participants become more sincere in demonstrating their individual capabilities within their respective expertise. A member of the utility team continued to use a survey meter after allowing it to make contact with supposedly contaminated clothing, the contaminated patient, equipment and the contaminated floor area.

Whiteside County

Not observed

L 4

Adequate Capability Demonstrated for Transportation of Radiological Accident Victims to Medical Support Facilities

State

Not observed

Rock Island County: There was an adequate demonstration of capability for transport of contaminated injured to medical facilities. A station worker was transported from the station to Moline Public Hospital. The station notified the hospital via telephone of the accident. The hospital's initial notification was via telephone with additional two-way radio communications between the hospital and ambulance while enroute.

Whiteside County

Not observed

M 4

Capability for Periodic Estimation of Total Population Exposure (State Only)

Not observed

SUMMARY IX

Recovery and Re-entry Operations (Adequacy of Plans and Procedures)

State: The implentation of re-entry/recovery procedures was effectively coordinated with the utility and Iowa. The NARS was used to relay this information to the counties.

Rock Island County: After receiving the NARS message on recovery and re-entry, the ESDA Coordinator asked each agency what activities it was engaged in. It was explained by each organization that their agency was beginning recovery. The Sheriff said the roadblocks were being removed. The Sheriff department should have kept the simulated officers at access control points until all the residents had returned. Re-entry was not demonstrated.

Whiteside County: The scenario limited the demonstration of protective actions by the County emergency response staff to placement of cattle on stored feed. An exercise scenario to require evacuation of Whiteside County residents in the 10 mile EPZ would lend itself to a demonstration of re-entry recovery capabilities.

M 3      Adequacy of Established Means for Informing Response  
Organizations That Recovery and Re-entry Can Be Initiated  
(State Only)

State: The implementation of re-entry and recovery procedures was coordinated with the utility and Iowa. The NARS was used to disseminate this information to the local response organizations.

M 1      Adequacy of Procedures Demonstrated for Re-entry and  
Declaration of Protective Measures Allowing Re-entry

State

Not observed

Rock Island County: After receiving the NARS message on recovery and re-entry the ESDA Coordinator asked what each agency was doing. It was explained by each organization that their agency was entering recovery and re-entry. The Sheriff Department said the road blocks were being removed. The Sheriff Department should have kept officers at access control points until all the residents had returned. Re-entry was not demonstrated.

Whiteside County: Re-entry and relaxation of protective actions was limited to taking farm animals off stored feed. In that no other protective actions were required, there was nothing to down-step to a relaxation mode. An exercise that more fully demonstrates recovery and re-entry is recommended.

SUMMARY X      Relevance of the Exercise Experience (Benefit to Participants  
Adequacy of the Scenario)

State: The State EOC staff was in support of Rock Island and Whiteside Counties, Illinois, the State of Iowa and Clinton and Scott Counties, Iowa.

The exercise at the State EOC was of benefit to the participants particularly when it required coordination between Illinois and Iowa. The same coordination between States was demonstrated at the JPIC.

The State should, when developing future scenarios, provide for free play problems to be injected into exercise play at the County level.

Rock Island County: The scenario was adequate to test the capability of Rock Island County. It tested the integrated capabilities and major portions of response elements. The participants benefitted from the exercise. The test would have been more thorough and the staff would have benefited much more if a greater number of free play problems had been included.

Whiteside County: The scenario was adequate to test the major response functions of the emergency response staff of the county. The exercise would have been more thorough and the staff would have benefited more if additional exercise problems would have been introduced apart from those in the written scenario.

N 1 b

Adequacy of Scenario to Test Capability to Mobilize State and Local Personnel and Resources

State: The State staff at the EOC was in support of Rock Island and Whiteside Counties in Illinois and Iowa and Clinton and Scott Counties, Iowa. At the JPIC the scenario did require the public information staff to provide appropriate material and background to media representatives. The State should, when developing future scenario, provide for free play problems to be injected into exercise play at the local level.

Rock Island County: The scenario was adequate to test the capability of Rock Island County.

Whiteside County: The scenario allowed emergency response agencies to simulate many responses and be ready to activate others if need be.

N 1 a

Adequacy of Exercise to Test Integrated Capabilities and Major Portions of the Basic Existing Response Elements in Affected Organizations

State: The State staff at the EOC was in support of Rock Island and Whiteside Counties in Illinois and Iowa and Clinton and Scott Counties, Iowa. At the JPIC the scenario did require the public information staff to provide appropriate material and background to media representatives. The State should, when developing future scenarios, provide for free play problems to be injected into the exercise at the local level.



Rock Island County: The exercise was successful in testing the interplay of the County agencies and organizations. There should have been more free play put in the exercise..

Whiteside County: The response staff would have benefited more if additional exercise problems would have been introduced since this was not the primary county involved in the exercise.

Benefit of Exercise to Participants

State: The exercise was of benefit to the participants, particularly when it required coordination between the Illinois and Iowa emergency responders.

Rock Island County: There was some benefit to the participants. It would have been more beneficial to have more free play in the exercise to allow the participants to keep busy.

Whiteside County: The exercise was of benefit to the second shift personnel as a training vehicle more than to first shift personnel who had participated in previous exercises.

## PART III

SUMMARY LISTING OF MAJOR DEFICIENCIESState

No major deficiencies were observed resulting from this exercise of radiological emergency plans.

Rock Island County

- E 1      It was recognized during the exercise that Rock Island Communications Command notified the Emergency Operations Centers at Port Byron and Cordova of the "Unusual Event" and "Alert". But the Hillsdale Fire District was not a part of that notification procedure as stipulated in the plan.
- G 4 c      No formal rumor control measures were implemented. Therefore, there was no demonstration of capability. Most calls from the public would come into the Rock Island Communications Command on the 911 line. Some procedure needs to be developed to handle rumor information.
- J 10 k      It is postulated that a positive response by towing companies may not take place in view that letters of agreement do not exist. It is believed that those who are depended upon for towing service have had no introductory radiological training and have not actually agreed to entering a radiologically contaminated area to remove disabled vehicles. There is no plan for dosimetry to be issued to these emergency workers.
- K 3 a      The dosimeters used are CDV-742's. Each organization has dosimetry - TLD's, and record cards for their people and they are trained on their use. It is recommended that the 0-200 low range dosimeters be obtained for use and demonstrated.
- M 1      Upon entering the recovery and re-entry phase of the exercise the Sheriff reported that roadblocks were being removed. This action is believed to be premature. The roadblocks and check points are necessary to control the re-entry of residents into the area previously evacuated. It is necessary this be demonstrated.

Whiteside County

- G 3 a      Within the County Building there is a room designated as the "press room". It is not large and does not have telephones, an adequate number of electrical outlets, displays or other facilities needed to accommodate the media should an incident occur at the nuclear power station. The press room needs more extensive attention to prepare it for demonstration of capability.

G 4 a      It was apparent that the person acting as the information officer was not actively participating in the press information function.

A more aggressive role needs to be taken which should result in a demonstration of assignment and level of adequacy.

G 4 b      The County information officer at the Emergency Operations Center did not have input into the news releases. There was no flow of public information between the Joint Press Information Center and the County Emergency Operations Center. This is necessary since there is no County representative at the JPIC. A more comprehensive demonstration must be performed.

## PART IV

SUMMARY LISTING OF MINOR DEFICIENCIES

Although adequately demonstrated, the following elements could be improved, primarily in the area of:

PlansState

None

Rock Island County

- J 10 d In addition to the concentrated efforts to provide for the mobility impaired it is recommended that arrangements be made with local newspapers, radio broadcast and television stations to run public service announcements inviting those without transportation (not only the ill and disabled) to call the Health Department to be added to the list of impaired. This should be a procedure and added to the county plan so that it is an ongoing activity to protect the public.

Whiteside County

None

TrainingState

None

Rock Island County

- E 2 Greater familiarity with alerting, notifying and mobilizing procedures on the part of the communications operators would alleviate the problem where the Health Administrator and the County Highway personnel were not notified. On-job-training and a review of procedures and alerting lists should solve the problem.
- E 6 The test of the outdoor prompt alerting and notification was held May 3, 1983 (letters attached as Attachment A). As a result of the May 11, 1983, exercise evaluators observed it took 15 minutes to receive and verify the message announcing the "General Emergency". While no delay occurred beyond what is allowed, this time should be shortened perhaps by limiting the verification call to the essentials of the NARS message.



- J 10 g Due to the composition of the scenario and the extensive simulation for the May 11, 1983, exercise it is requested that a sampling of population be evacuated from the two mile DPZ to evaluate methods used for implementing relocation of the populace.
- J 10 j It was announced and accepted that access control to evacuated areas was to be simulated. It then becomes necessary to evaluate the elemental capability. It is requested that during the annual exercise the capability of access control to the simulated evacuated areas be demonstrated.
- L 1 Those emergency workers who have responsibility to provide medical assistance to the populace whom have received radiation exposure and uptake need to exercise extreme care in the procedures used in discharging those services. The hospital and ambulance service exhibited a good demonstration of capability. Radiological monitoring conducted by the utility medical team member needs improvement. Procedures and the use of survey equipment needs to be reviewed and practiced.

#### Whiteside County

- A 1 d An individual designated and written into the plan was in charge of the emergency response. The concern is in the double staffing for a shift change. It may be well worth consideration to provide the relief with greater experience through on-job-training to give him more experience in directing the emergency response activities.

#### Resources

##### State

None

##### Rock Island County

- A 4 A complete shift change of the emergency staff was demonstrated. New shift personnel were briefed prior to assuming their assignment. The replacement for the County School Superintendent has no formal association with the school system or specialized training. That person would not be aware of the multitude of problems that might arise in protecting the students of the schools at risk.
- F 1 b Communications between Rock Island County EOC and County agencies were good. The primary communications system is at Rock Island Communications Command. There is sufficient communications

equipment and a reserve of qualified personnel on duty 24 hours a day. The County EOC has some backup equipment to handle the contiguous State and local governments.

An improvement could be achieved by locating the primary communications in the County EOC.

- F 1 e Equipment to alert and activate emergency personnel is good. All County EOC staff and alternates have primary and backup telephone numbers listed with the Rock Island Communications Command. The Sheriff, Coroner, Assistant Coroner, and RICOMM Director have pagers. The County Board Chairman and the ESDA Coordinator do not have pagers. Given their importance, these individuals should be provided pagers.

#### Whiteside County

- F 1 d Communications with the licensee is via the NARS. The communications was adequate. The communications operator at the County expressed that it was difficult at times to hear the transmissions. It is suggested the NARS equipment be checked frequently to enhance quality.
- F 1 e While commercial telephones and radio systems serve the daily need to communicate among county government, telephones appear to be excessively relied upon. In an emergency commercial telephone will become over loaded and fixed radios will reach only those who are near the equipment. For very fast-breaking emergencies it would be useful to have a page-call system for key emergency staff.
- J 10 b The information displayed in the population distribution map is helpful. The data would be more meaningful to decision-makers if the population were divided by existing social, fabricated or natural boundaries (governmental lines, roadways or waterways) which parallel the sector boundaries.

## PART IV

SCHEDULE FOR CORRECTION OF DEFICIENCIES

The schedule for the correction of deficiencies listed for the State of Illinois and Rock Island and Whiteside Counties is to be provided the Federal Emergency Management Agency, Regional Assistance Committee Chairman 30 days from the date of the cover letter.



# Federal Emergency Management Agency

Region V 300 South Wacker, 24th Floor, Chicago, IL 60606 (312) 353-1500

REC-108


MEMORANDUM FOR: Assistant Director, Office of Natural and  
Technological Hazards  
Attention: Megs Hepler, Field Operations Branch

FROM: Chief, Natural and Technological Hazards Division

SUBJECT: Illinois Corrective Actions to Quad Cities Nuclear  
Power Station Exercise Final Report

Attached is the Illinois schedule of corrective actions to the Quad  
Cities NPS Exercise Final Report.

The responses have been studied and found reasonable and logical  
for resolving the cited observed deficiencies. The cited deficiencies  
of the May 11, 1983, exercise will be evaluated during the next  
scheduled annual exercise of the Quad Cities Nuclear Power Station.

  
Frank Finch

Attachment





E. Stuart Richter  
Coordinator

## WHITESIDE COUNTY

### Emergency Services And Disaster Agency

Morrison, Illinois 61270



Courthouse Building  
Phone 815-772-2801

June 13, 1983

Mr. Dean Schlee  
Illinois Emergency Services and  
Disaster Agency  
110 East Adams Street  
Springfield, Illinois 62706

Dear Dean,

On June 7, 1983, Whiteside County conducted test of the Prompt Notification System sirens (Quad City EPZ). It was found that all sirens were in working order with the exception of the siren in Albany, Illinois (A-1B). That siren had suffered damage from lightning.

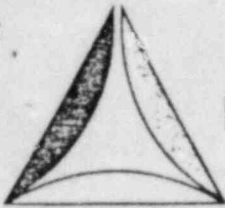
Since the test, the Albany siren has been repaired and should be in working order for our next monthly test in July, 1983. Our tests are on a monthly basis on the first Tuesday of each month.

Sincerely,

*E. Stuart Richter*

E. Stuart Richter  
Coordinator

ESR:lfd



# Illinois Emergency Services and Disaster Agency

110 East Adams Street, Springfield, Illinois 62706

July 21, 1983

REC'D INCOMING  
F.E.M.A.  
REGION 5  
25 JUL 83 11 14

Mr. Frank Finch  
Chairman, Regional Assistance Committee  
Federal Emergency Management Agency  
300 South Wacker, 24th Floor  
Chicago, IL 60606

Dear Mr. Finch:

Contained herein are comments, and a schedule for corrective actions, addressing the deficiencies cited on pages 37 and 38 of the EXERCISE FINAL REPORT, QUAD CITIES NUCLEAR POWER STATION, dated June 24, 1983:

## State

No major deficiencies.

## Rock Island County

1. E 1 It was recognized during the exercise that Rock Island Communications Command notified the Emergency Operations Centers at Port Byron and Cordova of the "Unusual Event" and "Alert." But the Hillsdale Fire District was not a part of that notification procedure as stipulated in the plan.

Response - Hillsdale Fire District notification was simulated during the exercise. The Hillsdale Fire District will be notified, as stipulated in the Plan, at the next exercise.

2. G 4 c No formal rumor control measures were implemented. Therefore, there was no demonstration of capability. Most calls from the public would come into the Rock Island Communications Command on the 911 line. Some procedure needs to be developed to handle rumor information.

Response - The Rock Island County Communications Center procedures state "all news media questions are referred to the appropriate county or city official." Example, if questions were called in on 911, the party calling, would be referred to the Rock Island County EOC for clarification. Rumor control information is addressed in the site specific Quad Cities Plan, Chapter 2 (Rock Island County), Section L, Public Information, Page 177, 178, 179.

3. J 10 k It is postulated that a positive response by towing companies may not take place in view that letters of agreement do not exist. It is believed that those who are depended upon for towing service have had no introductory radiological training and have not actually agreed to entering a radiologically contaminated area to remove disabled vehicles. There is no plan for dosimetry to be issued to these emergency workers.

Response - The Director of the Division of Highways, Bureau of Maintenance, is responsible for the opening and clearing of all highways (evacuation routes), moving barricades and equipment and any other assistance needed to affect a complete and orderly evacuation. The IDOT and county highway personnel have been trained in dosimeter control. The site specific plan does not call for the use of private towing companies to be used for removing obstacles from public roadways.

4. K 3 a The dosimeters used are CDV-742's. Each organization has dosimetry TLD's, and record cards for their people and they are trained on their use. It is recommended that the 0-200 low range dosimeters be obtained for use and demonstrated.

Response - The Department of Nuclear Safety has ordered 1,500 0-20 R self-reading dosimeters. DNS has received 300 - 0-20 R self-reading dosimeters and will be using them and training emergency workers in their use. The 0-20 R self-reading dosimeters will be used and properly demonstrated at the next exercise.

5. M 1 Upon entering the recovery and re-entry phase of the exercise, the Sheriff reported that roadblocks were being removed. This action is believed to be premature. The roadblocks and check points are necessary to control the re-entry of residents into the area previously evacuated. It is necessary this be demonstrated.

Response - The recovery and re-entry phase will be demonstrated at the next exercise.

#### Whiteside County

1. G 3 a Within the County Building there is a room designated as the "press room." It is not large and does not have telephones, an adequate number of electrical outlets, displays or other facilities needed to accommodate the media should an incident occur at the nuclear power station. The press room needs more extensive attention to prepare it for demonstration of capability.

Response - The press room situation will receive attention and will be demonstrated at the next exercise.

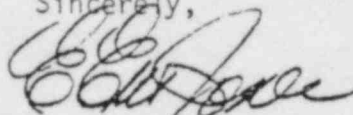
2. G 4 a It was apparent that the person acting as the information officer was not actively participating in the press information function.

Response - A more aggressive role of the county public information officer will be demonstrated at the next exercise.

3. G 4 b The County information officer at the Emergency Operations Center did not have input into the news releases. There was no flow of public information between the Joint Press Information Center and the County Emergency Operations Center. This is necessary since there is no County representative at the JPIC. A more comprehensive demonstration must be performed.

Response - The exchange of information was accomplished by telefaxing information from the JPIC to the county EOC. The public information procedures will be demonstrated at the next exercise.

Sincerely,

A handwritten signature in dark ink, appearing to read "E. Erie Jones", written over the typed name.

E. Erie Jones  
Director

EEJ/cs

cc: G. Wenger





# Federal Emergency Management Agency

Region VII 911 Walnut Street Kansas City, Missouri 64106

JUL 22 1983

MEMORANDUM FOR: Dave McLoughlin, Acting Associate Director  
State and Local Programs and Support

FROM: Patrick J. Breheny, Regional Director  
FEMA, Region VII

SUBJECT: 1983 Quad Cities Exercise Report

Enclosed is the final report for Iowa's performance at the 1983 Quad Cities exercise. Please note the absence of major deficiencies and the Executive Summary conclusion which states, "...the level of preparedness as shown by this exercise is adequate to protect the health and safety of the public."

attachment

*SW7*  
N&TH: Ferris/msw

7/20/83

*Begley*  
Begley

*SW7*  
Ferris

FINAL REPORT

EVALUATION OF THE IMPLEMENTATION OF  
IOWA STATE AND LOCAL RADIOLOGICAL  
EMERGENCY RESPONSE PLANS

For The

QUAD CITIES NUCLEAR STATION  
CORDOVA, ILLINOIS

EXERCISE CONDUCTED

MAY 11, 1983

Prepared By  
Federal Emergency Management Agency, Region VII

## I. INTRODUCTION

- A. A radiological emergency exercise was conducted on May 11, 1979, to evaluate the adequacy of state and local emergency plans and response capabilities in Iowa in the event of an emergency at the Quad Cities Nuclear Station located in Cordova, Illinois. The plans evaluated included the Iowa Emergency Plan Book II and the Scott and Clinton County Nuclear Power Plant Emergency Response Plans.

The exercise was conducted jointly by the Commonwealth Edison Company (operator of the Quad Cities Station), the State of Iowa (and associated local governments) and the State of Illinois (and associated local government). Observations and evaluations of the exercise were performed by members of the Region VII Regional Assistance Committee (RAC), FEMA Regional staff, and qualified Federally-contracted evaluators. The following is a complete list of the evaluators, their agency affiliations and their evaluation assignments:

<u>OBSERVER</u>	<u>AGENCY</u>	<u>ASSIGNMENT</u>
S. Ferris **	FEMA	Roving
D. Wilson	FEMA	Iowa EOC, Des Moines
G. Jacobson	FDA	Iowa EOC, Des Moines
B. Brinck	EPA	Iowa Field Team Coord.
M. Carroll	FEMA	Clinton Co. EOC
D. Hawley	DOT	Iowa FCP
R. Honkus	INEL	Field Monitoring Team
R. Holtzman	ANL	Field Monitoring Team
D. Newsome	ANL	EOF
C. Saricks	ANL	JPIC
R. Leonard	FEMA	Clinton Co., EOC
W. Biedenfeld	PHS	Scott Co., EOC
P. Stahlschmidt	FEMA	Scott Co., EOC

\*\* RAC Chairman

- B. An exit interview with participants was held at 11:30 a.m., May 12, 1983, at the Federal Building in Davenport, Iowa. Highlights of the exercise evaluators' findings were presented during the interview and participant response was solicited. A public critique was held jointly with FEMA Region V on May 13 in Moline, Illinois.
- C. This post-exercise evaluation report shall be provided to the State of Iowa in order that they may act on the recommendations contained herein to improve the emergency response capabilities of both State and local government.

## II. EXECUTIVE SUMMARY

The Quad Cities exercise of May 11, 1983, afforded the State of Iowa and the counties of Scott and Clinton an opportunity to demonstrate emergency capabilities under the revised guidance of NUREG 0654/FEMA REP-1. The exercise was conducted jointly with the State of Illinois. Scenario events required protective actions to be taken in Iowa, including a recommendation for evacuation of persons residing in sectors downwind of the plant. While numerous activities were simulated, a sufficient number were demonstrated to qualify this as a "full scale exercise".

The following summarizes the evaluation of performance for Iowa State and local government against the objectives identified prior to the exercise.

### A. Emergency Operations, Facilities, and Resources

Communications systems provided adequate capabilities to exchange information among the parties. However, direct communication between the utility and local government was not demonstrated as requested after the 1982 exercise. The evaluators were assured that this capability is under development. Space, while at a premium, was well utilized at all levels. Scott County has plans to upgrade the EOC facility, which should significantly improve the operating environment.

### B. Alerting and Mobilization of Officials

Alerting and staffing of emergency facilities was accomplished in a timely manner. While not identified as an exercise objective, most local, as well as State Agencies, demonstrated 24-hour operating capabilities through a shift change.

### C. Emergency Operations Management

All levels of government demonstrated efficient management of the emergency. Each clearly had effective leadership with outstanding demonstration of support by appointed and elected officials.

### D. Public Alerting and Notification

Local officials in both Scott and Clinton Counties demonstrated a thorough knowledge of procedures and systems for alerting and notifying the public of the emergency. Systems accessed or demonstrated included emergency vehicles, EBS, cable television and special internal warning systems. Message forms remain an impediment to timely receipt and implementation of warning information.

### E. Public and Media Relations

The Joint Public Information Center, a newly designated facility in close proximity to the new utility EOF, proved inadequate for both the media and the State Spokesperson. The State Representative performed well under difficult physical arrangements.



Additional personnel are needed to assist at the JPIC. Either local representatives or direct communications from the county EOCs is needed to properly inform the media of emergency response activities at all levels of government.

F. Accident Assessment

Radiological monitoring was effectively demonstrated by the University Hygienic Laboratory personnel. Additional training is needed for selected inexperienced back-up team members. There is a need for better coordination of utility and State field monitoring teams in order to maximize available resources. Field data and utility recommendations were effectively used to reach the appropriate protective action decisions.

G. Actions to Protect the Public

All protective actions were simulated. However, all participants clearly demonstrated a thorough knowledge of actions necessary to implement the protective actions decisions. Boundaries for describing protective action areas were released to the public utilizing sectors. The descriptions should utilize recognizable geographical features for public understanding.

H. Health, Medical and Exposure Control

No objectives were prescribed pertinent to this area.

I. Recovery and Reentry Operations

Demonstration of this objective was restricted to discussions at State and local government about actions to be taken to allow reentry and recovery. Gaps in existing plans were identified by the participants which will be corrected at the next update.

J. Relevance of Exercise Experience

The exercise provided an excellent opportunity for both State and local government officials and staff to demonstrate their capabilities to meet an emergency at Quad Cities Station. Lack of sufficient technical details of the scenario in advance of the exercise made technical evaluation of the adequacy of the scenario difficult. This must be resolved with NRC and the utility prior to future exercises.

In conclusion, dramatic improvement by Iowa State and local government was evident over the 1982 performance. Plans have been revised, training has been conducted and the level of participation and interest has dramatically improved. Clearly, the level of preparedness as shown by this exercise is adequate to protect the health and safety of the public.

### III. EVALUATIONS

#### A. Emergency Operations Facilities and Resources

##### STATE

The EOC consists of three areas: the Executive room, the Operations room and the Assessment room. While each room functioned well, exchange of information among the three was inconsistent. Various status boards were available but were not maintained or kept current during the exercise. The use of the speaker phone in the Executive Room allowed excellent coordination between the State and both Scott and Clinton Counties.

##### LOCAL

The Clinton County EOC consists of the entire law enforcement building. Only the Civil Defense Offices plus a small additional space for the radiological monitoring team coordinator was utilized during the exercise. This space is limited, but proved adequate during the exercise.

Communications support provided to the field monitoring teams was minimally acceptable. The Iowa Highway Patrol radio utilized by the teams was received by the Clinton County Sheriff dispatcher and provided to the Field Team Coordinator by runner. This arrangement allows no interaction between the teams and the Coordinator.

The Scott County EOC is presently being remodeled to facilitate operations. The split location utilized during the exercise was awkward but provided adequate operating space for the exercise.

There remains a problem in notification of local officials by the utility. This notification does not come directly to local government. Illinois control of the NARS has prevented the necessary direct link to Iowa local government. Evaluators were assured that this problem is being addressed and will be corrected. Presently such notification must come through the State EOC.

#### B. Alerting and Mobilization of Officials

##### STATE

Staffing of the EOC was accomplished in a timely manner. Representative of all agencies identified in the plan were in place within fifty minutes. Most agencies accomplished a shift change during the exercise to demonstrate 24-hour operating capability.

#### LOCAL

In Clinton County, the EOC was fully staffed within twenty-five minutes, including representatives of municipal governments. A partial shift change was demonstrated with discussions by the remaining agencies as to their resources for extended operations.

In Scott, the EOC staff was prepositioned, but notification was demonstrated at the appropriate time in the scenario. Simulated shift change and double staffing of positions demonstrated a 24-hour operational capability.

#### C. Emergency Operations Management

##### STATE

Management of the operation was effective, especially the coordination among Iowa, Illinois, Scott and Clinton Counties, and the EOF. The Governor's representative and press secretary were available throughout the entire exercise. The decision making group consisted of the ODS Director, Transportation Director, Health Director, and the Governor's representative. All participated in major operational decisions.

##### LOCAL

The Clinton County Civil Defense Director did an outstanding job of managing the operation, including briefings of staff, coordination of agency responses and direction of the overall county resources.

In Scott County the Civil Defense Director provided good leadership. Round table discussions among the EOC representatives occurred prior to major operational decisions. Periodic briefings were presented when exercise events dictated updating the decision makers.

In both Counties, participation by both elected and appointed officials was outstanding. The level of demonstrated interest and cooperation in developing an adequate response has increased dramatically over the 1982 exercise effort.

#### D. Public Alerting and Notification

##### STATE/LOCAL

Per the State and local plans, public alerting and notification was accomplished upon the receipt of the Site Area Emergency classification. Local government simulated the activation of both the warning systems and the EBS message to the public. All aspects of the simulations provided clear evidence that procedures and means are in place for the effective notification of the public. In Scott County, emergency vehicles (with sirens and loud speakers) drove their emergency notification routes in the 5-10 mile zone. Their runs were accomplished in less than 30 minutes. EBS message plus cable vision access and indoor warning systems were repeated with each change in classification, but were not repeated between classification changes. The descriptions of the affected areas utilized sectors rather than physical boundaries understandable by the the public.

The NARS form, because of its length and complexity, caused delays in the initial notification of local governments, with resulting delays in the activation of the warning system.

#### E. Public and Media Relations

##### STATE/LOCAL

Media relations were accomplished by the State spokesperson at the JPIC. No local representatives were present.

The JPIC facility was located in a maintenance garage adjacent to the EOF. Physically, the JPIC was inadequate; limited space for media representative, no space for spokespersons to work, poor ventilation, and inadequate telecommunications to support the spokespersons. Since this is a utility facility, its improvement will be the responsibility of the licensee, however. State and local government should clearly identify their requirements.

The conference telephone for the spokesperson was located in another building, making effective coordination with the operational forces difficult. Briefings materials were provided to the media as an integrated Iowa/Illinois package. Iowa 10 mile EPZ population data was not included and was not available to the spokesperson.

#### F. Accident Assessment

##### STATE

Dose assessment was performed well by the Field Team Coordinator (located in the Clinton County EOC). However, assessments and decisions often appeared to have been completed elsewhere before adequate data was available. There appears to be too much reliance on the utility's recommendations when corroborating data is available in the field. A telephone line between the Field Team Coordinator and the EOF was not properly utilized because of no coordinator in the EOF. This resulted in a lack of sharing of field data between the State and the utility.

Field monitoring teams had a good complement of survey instruments. Protective equipment was available to the teams. No specific written procedures were available to the teams for surveying, sampling, dosimetry use, or dose limits. The teams demonstrated proper use of the instruments and were knowledgeable of general health physics procedures but were not sufficiently acquainted with emergency response procedures. Direct communication between the teams and the coordinator was not possible due to the radio configuration. No calibration stickers were displayed on the instruments.

#### G. Actions to Protect the Public

##### STATE/LOCAL

All protective actions were simulated. These included a gradual escalation from sheltering 0-5 miles to evacuation 0-5 miles with sheltering from 5-10 miles. The decision making process flowed smoothly and was clearly



transmitted to Scott and Clinton Counties for implementation. Participants at all levels demonstrated a thorough knowledge of actions necessary to implement the decisions. Activation or demonstration of the reception centers was not identified as an objective of this exercise.

#### H. Health, Medical and Exposure Control

##### STATE/LOCAL

While no objectives were specified for this section, actions and plans for both State and Local response personnel were demonstrated pertinent to exposure control. The availability, distribution and identification of personnel to receive KI has not been established. Dosimeters were provided to emergency workers, but no frequency for reading and recording doses has been established.

#### I. Recovery and Reentry Operations

##### STATE/LOCAL

Demonstration of this objective was restricted to simulated sampling and analysis by monitoring personnel and discussions by State and local government about actions to be taken to allow reentry.

#### J. Relevance of Exercise Experience

The physical demonstration of many of the objectives was not accomplished. Much activity was simulated. However, full activation of all EOCs and detailed discussions of the simulated activities resulted in an adequate opportunity for State and local decision makers to demonstrate their capability to direct the emergency response.

Technical aspects of the scenario were flawed, however. No field team data was prepared as part of the scenario. Postulated releases did not follow the scenario at the point of the 48 hour time shift. No off-centerline data was available and the scenario off-site data did not account for plume travel time.

#### IV. MAJOR DEFICIENCIES

No major deficiencies were identified with respect to Iowa emergency response operations at the State or County level.

## V. MINOR DEFICIENCIES/AREAS FOR IMPROVEMENT

- A. Local plans should call for the repetition of public warning messages at specified intervals. This applies to all forms of notification; EBS, cable vision access and indoor warning systems.
- B. Messages to the public describing the affected area should utilize physical boundaries not planning sectors. These translations are best accomplished in advance of their use in an exercise or real event.
- C. An abbreviated NARS form for the initial notification of the classification levels or recommended protective actions should be developed to expedite initiation of various actions. A follow-up message using the long NARS form should be sent giving technical details or updating the situation.
- D. An additional staff position at the JPIC is needed to expedite the development and delivery of information to the media.
- E. The State plan provides for dose assessment by the Field Team Coordinator and at the State EOC. This dual capability creates a backup/check for the assessment calculations. However, the two groups must work more closely together if the system is to function effectively.
- F. The field teams were composed of personnel competent in health physics procedures. However, more training is needed in procedures specific to emergency response activities. Additionally, equipment lists and written procedures for use of equipment and sampling techniques are needed.
- G. Since the plans call for the use of KI for emergency workers, procedures must be developed for the storage, distribution, and decision chain for its use and for the pre-determination of those workers eligible for its use.
- H. Procedures should be developed for the frequency of reading and recording dosimeter data by emergency workers.
- I. Direct communications between the field teams and the Field Team Coordinator is needed to facilitate necessary information exchange.
- J. State and local government, should both be represented at the JPIC to properly represent the full range of response being taken.
- K. State and local officials should indicate to the licensee their requirements for space and resources in the JPIC facility.
- L. A full time representative in the EOC to coordinate with the State on field data is needed. In this manner more efficient use can be made of limited field team resources.
- M. Technical data required in the scenario should be provided prior to the exercise. Only in this manner can the adequacy of technical calculations, assessments and recommended protective actions be analyzed.