DHB

JAN 1 1 1985

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 enclosed Federal Emergency Management Agency (FEMA) letter dated November 14, 1984, and associated final exercise evaluations on the offsite emergency preparedness exercise conducted on August 28-29, 1984, for Rock Island and Whiteside counties, the cities of Cordova and Port Byron, and the State of Illinois. The State of Iowa and Clinton and Scott counties in Iowa also participated, and were evaluated by FEMA Region VII, which will submit a separate exercise report.

This final exercise evaluation lists one deficiency for the State of Illinois which was due to the State's failure to activate the Emergency Broadcast System (EBS) within 15 minutes of the decision to alert the public. The sirens were sounded within 15 minutes; however, 26 minutes elapsed before the initial instructional message was announced on the EBS station. FEMA has identified this deficiency as one which affects public health and safety. FEMA will perform a determination of the effect of this deficiency on the overall status of offsite preparedness as soon as they receive and analyze the State of Illinois corrective actions and the results of the remedial drill.

This is to notify you that we will determine an appropriate course of action under our regulations for the Quad-Cities Nuclear Generating Station after receiving the FEMA evaluation of offsite preparedness and the results of the remedial drill. We would expect that correction of this deficiency will be demonstrated during the remedial drill which FEMA states will be required to be conducted prior to January 31, 1985.

This final exercise evaluation also lists some recommendations (which are referred to in the FEMA evaluation as other deficiencies; e.g., those not affecting public health and safety) regarding the offsite agency responses and your medical drill which was conducted on September 11-12, 1984. In addition, two weaknesses were identified in radiological emergency response capability related to the news media center and the medical care personnel and facilities. In both of these cases, FEMA considers the corrective actions necessary to be partially your responsibility as licensee. These two weaknesses are identified in a letter dated October 19, 1984, from Mr. W. Weaver, Chairman, Regional Assistance Committee to James G. Keppler, Regional Administrator. A copy of this letter is also enclosed.

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

Should you have any questions regarding this letter, please contact Mr. M. Phillips of my staff at (312) 790-5530.

Sincerely,

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

Enclosures:
1. Letter from FEMA dated 10/19/84
2. Letter from FEMA dated 11/14/84

cc w/encl:
D. L. Farrar, Director
of Nuclear Licensing
N. Kalivianakis, Plant
Superintendent
DMB/Document Control Desk (RIDS)
Resident Inspector, RIII
Phyllis Dunton, Attorney
General's Office, Environmental
Control Division
D. Matthews, EPB, OIE
W. Weaver, FEMA Region V
M. Carroll, FEMA Region VII

RIII	RIII	RIII	RIII	EPB:IE	RIII
Brown/pg	Ploski	Phillips	Chrissotimos	Van Niel	Paperiello
01/10/85				per telecon on 1/10/85	

Federal Emergency Management Agency

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

October 19, 1984

PRINCIPAL STAFF

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RC		DRSS	✓ orig + 1
PAO		ML	
SGA		OL	
EIC		OI	
CRMA		FILE	8-98

Mr. James G. Keppler
Regional Administrator
Nuclear Regulatory Commission
Region III
799 Roosevelt Road
Glen Ellyn, Illinois 60137

Dear Mr. Keppler:

The Quad Cities Nuclear Power Station exercise, conducted August 28-29, 1984, and the Medical Support Exercise, conducted September 11-12, 1984, both of which were evaluated by the Region V Regional Assistance Committee, have exposed two areas of weakness in radiological emergency response capability. I am sharing the findings with you in that the corrective actions which are necessary are the partial responsibility of the licensee, Commonwealth Edison Company. The exercise report we have prepared for the State of Illinois will contain the two areas as deficiencies to be corrected by the State.

One area of weakness in capability is the News Media Center which is located near the licensee's Emergency Operations Facility (EOF), Morrison, Illinois. Our evaluation of the facility during this exercise is similar to our evaluation during the May 11, 1983 exercise.

When applying the FEMA evaluation criteria, we find the News Media Center facility unsuitable. We have been informed the News Media Center arrangement is temporary, as it was also reported at the previous exercise. The building, in a normal day-to-day operation, is an equipment/parts garage for the licensee. It is a steel frame structure with high bay ceilings and unfinished walls. The permanent lighting is not of an intensity to afford close work illumination. It is believed that comfort zone temperature control would be difficult in the heat of summer or the cold of winter. Bathroom facilities consists of one room.

Space for informati n officers and the news media is severely limited. Furniture is in short supply mainly due to the limited space. The telecopier is in the EOF and the EOF is a building apart from the equipment garage.

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The News Media Center can accommodate approximately forty reporters at a briefing. There is no space for the media representatives to conduct private interviews, make audio tapes or video tapes and films. The facility has no backup power source. News releases have to be processed at the EOF which causes a delay in getting the releases out to the news media.

The main point is that the facility is interim but has been interim for a considerable period of time and should an accident of a significant magnitude and duration occur at Quad Cities Nuclear Power Station, it would overtax the capacity of the currently designated News Media Center. It should be noted that our comments apply only to the facility itself. The people and support equipment in the center did perform well.

Another area of weakness in capability has to do with the Quad Cities Medical Support Exercise conducted September 11-12, 1984 at the Moline Public Hospital. FEMA has a responsibility to observe and evaluate the capability of the emergency medical staff and the capacity of the facility. Once again the Federal criteria requires FEMA to assure that medical care facilities and personnel who treat contaminated injured from the licensee are available to treat citizens from the general public who may become contaminated and/or injured.

Two simulated contaminated-injured persons were transported by different ambulance companies to the Moline Public Hospital. Each victim was handled to a different degree of safety and protection in relation to radiation contamination. Daley Gibson Ambulance Service who transported victim #1 did not use the proper protective clothing on themselves or the victim to contain contamination. At the hospital, application of procedures was inconsistent. Problems were noted with implementing established procedures regarding availability of the transport cart, draping and clean path carpet. During washdown of the victim, the contaminated water discharged onto the floor of the examination room. Water sprayed on Victim #2 splashed about and ran over the splash boards onto the attendant and onto the floor.

It was noted that Radiation Management Corporation consultants performed some of the functions at the hospital. If training and supervision is provided and conducted with the exercise itself, it should be done by regular hospital staff and not by consultants who will be unavailable during any actual emergency.

I have enclosed a copy of the Medical Support Exercise evaluation for your information. It provides greater detail of the evaluation. As usual, the full exercise report will be forwarded to NRC by our Headquarters Office in the near future.

Please keep me informed of enforcement actions you may take to correct these two areas of weakness.

Sincerely,

Wallace J. Weaver

Wallace J. Weaver, Chairman
Regional Assistance Committee

Enclosure

Attachment 1

MEMORANDUM

DEPARTMENT OF HEALTH AND HUMAN SERVICES
REGION V — CHICAGO
PUBLIC HEALTH SERVICE

TO: Gordon Wenger
Exercise Coordinator
FEMA Region

DATE: September 19, 1984

FROM: Roy Armstrong, Chief
Primary Care Section
USPHS, DHSD, Region V

SUBJECT: Quad Cities Nuclear Power Plant
Medical Support Exercise
9/11/84-9/12/84
Moline, Illinois

At the request of G. Wenger I traveled to Moline to serve as the FEMA observer at the Quad Cities Medical Support Exercise. As primary observer the following information reflects the activities, exercise, and observations:

I. Activities

A. Training pre-exercise.

9/11/84 - The consultants from Radiation Management Corporation conducted two training sessions for the medical support personnel. The first session was conducted at Moline Public Hospital from 1-4 pm and was attended by 19 persons representing Moline Public Hospital, Commonwealth Edison, Iowa Disaster Services, Mercy Hospital, Davenport Osteopathic Hospital, Moline Public Emergency, Scott Co. Disater Services, and Rock Island County ESDA. Course provided detailed procedural overview of how to appropriately medically manage contaminated injured patients. The second training session for ambulance service personnel was conducted in the pm at Port Byron for Illini Ambulance Personnel and Daley, Gibson personnel.

B. Excercise/Scenario

1. Scenario

On 9/12/84 at 9:00 am a simulated incident was scheduled to occur at the plant. The incident provided for a multiple vehicle accident wherein two individuals were injured physically and were also radioactively contaminated. The victims were transported to Moline Public Hospital via two different ambulance companies (Illini and Daly Gibson) to excercise both companies equipment and personnel. Patients were to arrive at the hospital at an interval to provide adequate time for medical support services to respond in a manner consistant with the plan and approved protocols.

2. Exercise

The incident occurred at the plant at 9:00 am at 9:35 am the Hospital Emergency Room Coordinator was contacted by telephone/radio patch from the Daly/Gibson ambulance attendant that he was inroute to the hospital with a victim, that it was a drill, and reported on the physical status of the patient. The Emergency Room Coordinator alerted the hospital staff to activate their special treatment room, and described the victims condition and expected treatment. Note, the hospital staff had prepared the treatment room, parking lot, case management treatment supply cart, and hospital service area the previous day in preparation for the exercise. No call was received from the plant, the hospital ER coordinator contacted the utility via telephone to confirm the exercise. The ambulance arrived at the hospital at 10:04 am, and the victim was transferred to the special treatment room. Note: unfortunately the primary physician was not available during this phase as the hospital received a real emergency victim within minutes of the Excercise victims arrival. The balance of the care staff provided for the evaluation of the patients physical conditions (2) survey for raidiological contamination. (3) treatment and (4) decontamination. concurrent with this the hospital was advised that a second victim was inroute for treatment etc. Concurrent with this the exercise coordinator consultant advised the medical team that victim No. 1 had a ruptured spleen and was suffering from internal bleeding and had to be transferred immediately to surgery, victim No. 1 was transferred and victim No 2 arrived via the Illini Ambulance Service. The physician was available to direct the medical management of victim No. 2 and procedures were carried out to survey, treat, and decontaminate the victim.

3. Exercise Observations

A. Ambulance Service/Transport

1. Victim No 1 was transported by Daley Gibson ambulance and personnel. The ambulance driver was not dressed in protective clothing, and the other attendant was only partially dressed in very poor guality clothing. The victim was partially clothed, however the head, hands, and feet (shoes) were not covered, there was mutiple opportunity to contaminate both the attendants, ambulance, and equipment.

2. Victim No 2. was transported by the Illini Ambulance Services and both attendants and the victim were appropriately dressed and protected from any possible contamination.

3. Hospital Support Service

1. Personnel were at a disadvantage with the medical management of patient No 1 without the physician, who was treating a real emergency patient. Without direction from the consultant Excercise Coordinator there appeared to be inconsistency in the application of procedures to assure that contamination did not take place when the victim required transfer for immediate surgery. Procedural confusion on transfers 1 included no cart, draping, clean path carpet, etc. again without direction from the consultant coordinator it appeared to this observer that the transfer would not have been made consistant with established procedures, additional training/exercise is indicated.

In contrast to victim #1, victim #2 was managed medically in an efficient manner by the attending physician and support personnel. Decontamination of the vicitm by use of the wash tray on the examing table continued to be a problem (in the first victim's case the attendant did not place the dirty water barrel under the drain and the contaminated water discharged on the floor of the examing room), and for victim No 2 the attendant doing the wash applied to much water pressure and due to poorly fitted splash boards contaminated water again ran out the sides on to the attendant, (who had on protective clothing), and onto the floor.

Summary

A future exercise should include medical support and transportation without any external supervision or direction. This observer has serious question regarding the availability of adequate supplies and equipment to adequately meet the needs of more than one victim. Items that need improvement are:

(1) Protective clothing, size and quality
(2) Wash tray and splash boards.
(3) Content of water supply, pressure, flexible hose
(4) Hospital supplies, clean path carpet for adequate drapping materials.

(5) Personnel training with emphasis on procedures.
(6) Rad. Tech should not touch victim or victim's clothing with survey instrument. (Noted on victim No. 1)

Note: Due to the number of persons (non-Hospital) involved (consultants, observers, TV cameras, etc.) it was not possible to provide for negative airflow from the treatment room to the remainder of the Hospital. The clean equipment cart and material supplies are in the corridor with free air-flow to the hospital ventilation system thru a open counter door, consideration should be given to restricting air-flow in the corridor, perhaps by installing double doors in the corridor.

Conclusion

Exercise was minimally successful. Transfer and medical management of victim No. 1 not acceptable. Transfer and medical management of victim No. 2 adequate. Other defficencies are noted in the summary. If training/supervision is provided or conducted with the exercise it should be done by regular hospital staff and not consultants who will not be available during any real emergency.

Federal Emergency Management Agency

Washington, D.C. 20472

NOV 14 1984

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
Assistant Associate Director
Office of Natural and Technological
Hazards Programs

SUBJECT: Exercise Report of the August 28-29, 1984, Exercise of the Offsite Radiological Emergency Preparedness Plans for the Quad Cities Nuclear Power Plant

Attached are two copies of the Exercise Report of the August 28-29, 1984, joint exercise of the offsite radiological emergency preparedness plans for the Quad Cities Nuclear Power Plant (NPP). This was a full participation exercise for the State of Illinois, Rock Island County and the Cities of Cordova and Port Byron, and Whiteside County and the City of Albany. The State of Iowa and Clinton and Scott Counties also participated fully in this exercise. They were evaluated by Region VII, Federal Emergency Management Agency (FEMA), which will submit a separate exercise report.

One deficiency affecting the public health and safety (Category A) was identified during the course of the exercise. The Category A deficiency (NUREG evaluation criteria E-6), for the State of Illinois, was due to the State's failure to activate the EBS within 15 minutes of the decision to alert the public. The sirens were sounded within 15 minutes, however, 26 minutes elapsed before the initial instructional message was announced (simulated) on the EBS station. Illinois will be required to conduct a remedial drill before January 31, 1985, to correct this deficiency.

FEMA Region V will provide a copy of this report to the State of Illinois and request a schedule of corrective actions. As soon as we receive and analyze the response, we will send you our determination.

In addition, the August 1984 Quad Cities NPP exercise and the Medical Support Exercise conducted September 11-12, 1984, revealed two areas of weakness in radiological emergency response capability. In both cases, the corrective actions necessary are partially the responsibility of the licensee, Commonwealth Edison Company. For your information, I have enclosed a letter dated October 19, 1984, from Wallace J. Weaver, Chairman, Regional Assistance Committee, FEMA

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Region V, to James G. Keppler, Regional Administrator, Nuclear Regulatory Commission, Region III. The letter provides details concerning the identified weaknesses in emergency response capabilities pertaining to the News Media Center and medical care personnel and facilities.

If you have any questions, please contact Mr. Robert S. Wilkerson, Chief, Technological Hazards Division, at 287-0200.

Attachments
As Stated

October 19, 1984

Mr. James G. Keppler
Regional Administrator
Nuclear Regulatory Commission
Region III
799 Roosevelt Road
Glen Ellyn, Illinois 60137

Dear Mr. Keppler:

The Quad Cities Nuclear Power Station exercise, conducted August 28-29, 1984, and the Medical Support Exercise, conducted September 11-12, 1984, both of which were evaluated by the Region V Regional Assistance Committee, have exposed two areas of weakness in radiological emergency response capability. I am sharing the findings with you in that the corrective actions which are necessary are the partial responsibility of the licensee, Commonwealth Edison Company. The exercise report we have prepared for the State of Illinois will contain the two areas as deficiencies to be corrected by the State.

One area of weakness in capability is the News Media Center which is located near the licensee's Emergency Operations Facility (EOF), Morrison, Illinois. Our evaluation of the facility during this exercise is similar to our evaluation during the May 11, 1983 exercise.

When applying the FEMA evaluation criteria, we find the News Media Center facility unsuitable. We have been informed the News Media Center arrangement is temporary, as it was also reported at the previous exercise. The building, in a normal day-to-day operation, is an equipment/parts garage for the licensee. It is a steel frame structure with high bay ceilings and unfinished walls. The permanent lighting is not of an intensity to afford close work illumination. It is believed that comfort zone temperature control would be difficult in the heat of summer or the cold of winter. Bathroom facilities consists of one room.

Space for information officers and the news media is severely limited. Furniture is in short supply mainly due to the limited space. The telecopier is in the EOF and the EOF is a building apart from the equipment garage.

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The News Media Center can accommodate approximately forty reporters at a briefing. There is no space for the media representatives to conduct private interviews, make audio tapes or video tapes and films. The facility has no backup power source. News releases have to be processed at the EOF which causes a delay in getting the releases out to the news media.

The main point is that the facility is interim but has been interim for a considerable period of time and should an accident of a significant magnitude and duration occur at Quad Cities Nuclear Power Station, it would overtax the capacity of the currently designated News Media Center. It should be noted that our comments apply only to the facility itself. The people and support equipment in the center did perform well.

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It was noted that Radiation Management Corporation consultants performed some of the functions at the hospital. If training and supervision is provided and conducted with the exercise itself, it should be done by regular hospital staff and not by consultants who will be unavailable during any actual emergency.

I have enclosed a copy of the Medical Support Exercise evaluation for your information. It provides greater detail of the evaluation. As usual, the full exercise report will be forwarded to NRC by our Headquarters Office in the near future.

Please keep me informed of enforcement actions you may take to correct these two areas of weakness.

Sincerely,

Wallace J. Weaver, Chairman
Regional Assistance Committee

Enclosure

EXERCISE REPORT

QUAD CITIES NUCLEAR POWER STATION

COMMONWEALTH EDISON COMPANY

JOINT EXERCISE

(Full Participation)

Location of the Plant:	Located in the State of Illinois, Rock Island County, near the City of Cordova, Illinois
Date of Report:	October 18, 1984
Exercise Date:	August 28-29, 1984
Participants Included:	The State of Illinois, Rock Island County and the Cities of Cordova and Port Byron, Whiteside County and the City of Albany and the Commonwealth Edison Company The State of Iowa, Clinton and Scott Counties (Evaluated by FEMA Region VII)
State and Local Governments That Should Have Participated But Did Not:	None

PREPARED BY:
FEDERAL EMERGENCY MANAGEMENT AGENCY
REGION V
NATURAL AND TECHNOLOGICAL HAZARDS DIVISION
TECHNOLOGICAL HAZARDS BRANCH
300 SOUTH WACKER DRIVE
CHICAGO, ILLINOIS 60606

TABLE OF CONTENTS

I. EXERCISE SUMMARY

State of Illinois

During the August 28-29, 1984 full participation exercise, twenty-five objectives were demonstrated and evaluated.No significant deficiencies were identified during the May 11, 1983 partial exercise. Five deficiencies were identified during the evaluation of the August 28-29, 1984 exercise.

The real time activation and staffing of the State Emergency Operations Center (EOC) was prompt and effective. The Illinois Emergency Services and Disaster Agency (Illinois ESDA) operation and communications van served as the organization's Forward Command Post and was prepositioned at Riverdale School along with the Illinois State Police. The Illinois Department of Nuclear Safety (IDNS) activated their staff through the use of a secondary scenario which was initiated approximately three hours prior to the overall exercise. This secondary scenario enabled the Radiological Emergency Assessment Center (REAC) and the Radiological Assessment Field Team (RAFT) to respond on a real-time basis. Activation of all IDNS staff and the dispatching of the RAFT was accomplished in a timely fashion.

The staff of the news media center was prepositioned with the exception of the Illinois Governor's Press Secretary who moved, real time, by helicopter from Springfield to the News Media Center at Morrison, Illinois.

The ability to fully staff facilities was demonstrated and the maintaining of staff around-the-clock was demonstrated by various methods. These included delayed notification and activation of certain staff, shift change, double staffing, and presentation of names of people who are slated as replacements. An actual shift change of those in charge of the Forward Command Post consisted of two staff members exchanging EOF and Forward Command Post roles which does not demonstrate around-the-clock staffing capability. There also was a demonstrated shift change of the Illinois ESDA spokesperson at the News Media Center facility.

Emergency operations management within the Illinois ESDA EOC in Springfield and the Forward Command Post were well organized and efficiently executed. The IDNS, REAC emergency operations management was also effectively performed. The interaction among the utility, the State of Iowa, IDNS and Illinois ESDA was effectively demonstrated. Simulated Federal assistance (field teams, mobile laboratory, aerial measurement) was requested from the Department of Energy Regional Assistance Coordinating office.

A deficiency was determined concerning message flow of information out of the Illinois ESDA EOC in Springfield concerning a bomb explosion by suspected saboteurs at the Quad Cities Nuclear Power Station.

The Illinois Department of Nuclear Safety's REAC staff in Springfield and Rock Island County staff were not informed the cause of the fire at the plant was a bomb explosion. Whiteside County, the News Media Center, and the State Forward Command Post did know the cause of the fire was suspected bombing by saboteurs.

The Illinois ESDA and IDNS Emergency Operations Centers (EOC) have been evaluated during previous exercises and found to be adequate. They are well equipped. Status boards were clearly visible and were promptly kept up to date with current information. The IDNS facility houses an extensive computer and video display system. In addition, both the Illinois ESDA and IDNS facilities had the required map displays.

The Illinois ESDA van at the Forward Command Post was equipped with primary and secondary communications equipment as well as required map and displays. The State EOC in Springfield, on several occasions, failed to transmit messages to the van at the Forward Command Post. Corrective action was taken when this was realized.

The field monitoring teams were equipped, knowledgeable, and demonstrated good capability. They applied appropriate procedures for taking ambient radiation readings and collecting air, soil, vegetation samples. A deficiency was determined concerning the gathering of the milk sample by Public Health. The individual collecting the milk sample did not use proper procedures. Protective clothing (gloves) were not worn and milk was spilled on the container, floor, and the hands of the sample taker. Records of exposure doses were kept by the RAFT Commander.

The IDNS Mobile Laboratory had proper equipment to take measurements of all samples and determine iodine concentration.

Previous evaluations of the News Media Center Center at Morrison, Illinois, took into consideration this is an interim facility. Since this facility continues to be used, the evaluation during the August 28, 1984 exercise considered it as if it is the permanent Media Center. A deficiency was determined concerning the News Media Center. The facility is not air conditioned and would be difficult to heat. No space is provided for a support staff or for the Public Information Officer to meet privately. Press releases had to be processed at the Emergency Operations Facility (EOF) a separate building from the News Media Center. The News Media Center is considered too small to handle the media should a real incident occur. There is not sufficient space for interviews or sufficient electrical outlets. Twenty-two (22) phones were provided the News media and overhead projectors, screens, easels, chalkboards and sound systems were available which helped make the news briefings more effective.

The State Communications System is a well-organized network. The Nuclear Accident Reporting System (NARS) is the basic network for interaction with the utility, the State, and the local EOCs. Commercial telephone, radio, and telefax supplement the NARS. The IDNS and IESDA personnel used various modes of communication during the exercise. These included commercial telephone, electronic pagers, NARS, radio, telefax and telecopier, thus demonstrating both primary and secondary form of communication. There was an intercom system established between all State Agency mobile units at the Forward Command Post. The facsimile machine at the Forward Command Post malfunctioned at the beginning of the exercise without a replacement, therefore hard copy messages from the State EOC could not be received. Some difficulty was experienced in both radio and telephone contact with Whiteside County from the Springfield Illinois ESDA EOC.

The initial protective action recommendation was based on the IDNSs understanding of the deterioration of the station condition. As the scenario progressed, IDNS used radiation levels inside and outside of containment to project expected doses. The projected dose estimates were promptly calculated using a computer and were also checked by hand calculation. The computer was also used to generate color graphics which provided isodose lines of the plume. Periodic updated meterological conditions and release estimates were put into the computer. Protective action recommendations were considered for both inhalation and ingestion pathways. When Iowa became affected, by the plume due to the wind shifts, IDNS effectively coordinated with Illinois ESDA, the State of Iowa, the the utility. Additional protective action recommendations were based on a number of factors including dose, number and type of people in affected sectors, evacuation times, and weather conditions in the plume exposure pathway. The REAC Commander recommended voluntary emergency worker use of potassium iodide based on the potential of a release versus an actual release. The use of potassium iodide was not recommended for the general public.

As a precautionary measure during the "Site Area Emergency" classification Illinois, in concert with the State of Iowa, ordered the activation of outdoor warning sirens (simulated) within a 10-mile radius of the plant at 8:42 p.m. Whiteside County simulated sounding the sirens immediately upon receipt of the activation messages and Rock Island within 15 minutes of the State order. The Emergency Broadcast System station (EBS), according to the State log, was activated at 9:08 p.m. Consequently, it took twenty-six (26) minutes from the time the State decided to activate the outdoor warning system until the initial instructional message was provided to the EBS station. This is a deficiency for the State of Illinois since the EBS was not activated within fifteen (15) minutes of the State's decision to activate the Prompt Alert and Notification System. It should also be pointed out the times reported by the Counties, in some instances, indicating when the sirens were activated, are not consistent with the times in the County message logs.

It is recommended the State conduct time checks at the start and periodically during the exercise to insure all exercise participants are using the same time. There was a second EBS message released at 10:15 p.m. notifying residents of the "General Emergency" classification and the protective action recommendations concerning evacuation and sheltering.

Another deficiency for the State of Illinois concerns the press release prepared at the State EOC in Springfield. The press release described evacuation sectors by letter designators rather than by commonly known landmarks. The State Illinois ESDA spokesman at the News Media Center did verbally describe the evacuation sectors by commonly known landmarks and used a map display to outline the evacuation sectors.

Decisions to implement protective actions were weighed and discussed among State Agency representatives in the Illinois ESDA EOC. Ingestion pathway activities were handled by the State Department of Health in coordination with IDNS and the State Department of Agriculture. Protective action recommendations were in conjunction with the utility recommendation. During the "Site Area Emergency" classification, cattle, out to two (2) miles, were placed on stored feed. During the "General Emergency", cattle out to ten (10) miles were placed on stored food.

Public Information Officers (spokespersons) at the Media Center included representatives from the Illinois ESDA, Commonwealth Edison, Illinois Governor's office, Illinois DNS, and the Iowa Disaster Services Agency. These spokespersons made good use of audio visual aids and did not speak over the heads of the media when dicussing technical issues. Press briefings were timely and information was coordinated before it was disseminated to the media. Coordination among the spokespersons at the Media Center could have been better had the facility had a place where they could meet. The spokespersons were also hampered from getting hard copies of releases to the media on a timely basis because these documents had to be typed, copied, etc. in the EOF which is in a separate building. A news media briefing room was available in the Illinois ESDA State EOC. The information staff at the ESDA State EOC functioned as the Rumor Control Center.

Recovery and reentry procedures began with the termination of the release. Relaxation of protective actions were based on monitoring data indicating safe levels of radioactivity (background levels). Recovery and reentry decisions were communicated to State Agencies and the Counties. Illinois Department of Transportation instructed field personnel to remove barricades and detour signs and shelters were closed.

The scenario was realistic. It tested areas of earlier deficiencies and allowed for a demonstration of "real time" alert, notification, and mobilization of State personnel, as well as "real time" deployment of the IDNS mobile laboratory and field teams (RAFT).

Rock Island County

During the August 28-29, 1984 exercise, sixteen objectives were demonstrated and evaluated. Five significant deficiencies, identified during the May 11, 1983 exercise, were corrected during this exercise. Four deficiencies were identified during the evaluation of the August 28-29, 1984 exercise.

The personnel assigned to the Rock Island County EOC were mobilized efficiently and all positions were staffed. The ability to maintain a 24-hour staffing capability was effectively demonstrated by shift change. Briefings were made to prepare the relief personnel for continuing operations. Emergency activities were coordinated internal to the County EOC and with State Agencies. The EOC staff implemented various actions consistent with recommendations from the State EOC.

The Rock Island County EOC facility and its furnishings were adequate and would accommodate a real-life long term accident. A deficiency was noted in that displays were in place but not all were utilized effectively. The status board should indicate the time of occurence of significant events.

Communications capability with other agencies, field team, and locations appeared to function well. The primary system was dedicated phones backed up with commercial phones and short wave radios. A deficiency was noted in that additional training is required in the use of the NARS form.

Implementation of activities in support of the protective actions was demonstrated by the EOC staff. Simulated activation of traffic control of the evacuation routes was implemented. The ability to alert the public within the prescribed fifteen (15) minutes was accomplished. The sounding of the sirens was simulated. The Emergency Broadcast System Station was contacted and kept apprised of the accident status.

The organizational ability to conduct ingress to the evacuated area was demonstrated. The actual implementation was simulated by the County. State, County and local law enforcement have the responsibility to control the traffic points. There are sufficient human and equipment resources to control the affected area.

A unique and separate scenario involved the transport of mobility impaired individuals. The activity was confidentially planned for spontaneity during the exercise. Red Cross volunteer stand-ins, simulating handicapped individuals, were transported by bus to a reception center in Coal Valley. Cordova Emergency Medical Technicians cared for the transportees in route.

Even though the County EOC is located well outside the 10-mile EPZ, dosimeters are stocked at the EOC and with emergency response agencies. Packets of dosimetry and instructions were given to the EOC staff as a training tool.

Potassium Iodide distribution was recommended and discussed by the executive body. The Illinois Department of Nuclear Safety discussed in detail the use of potassium iodide. Potassium Iodide is in place in key locations in the State and near Illinois nuclear power stations. It is in kits with other information and materials for the emergency workers.

The media, which visited the Rock Island County EOC, was briefed as to the status of the accident.

Recovery/reentry was implemented in a logical sequence. Emergency workers in the County EOC discussed the measures that would be implemented to effectively return the residents to their homes and businesses. EOC emergency staff contacted emergency workers to take the necessary actions to effect reentry and recovery.

The annual Medical Drill was conducted on September 11-12, 1984 and evaluated as part of this exercise report. Two contaminated individuals were transported separately from the Quad Cities Nuclear Power Station to the Moline Public Hospital for treatment of injuries. Deficiencies were noted in the ambulance transport of one of the victims and in the handling of the patients at the hospital.

Whiteside County

During the August 28-29, 1984 exercise, sixteen objectives were demonstrated and evaluated. Three significant deficiencies, identified during the May 11-12, 1983 exercise, were corrected during this exercise. One deficiency was identified during the evaluation of the August 28-29, 1984 exercise.

The initial NARS message was received by Whiteside County from Illinois ESDA informing the County of a "Site Area Emergency". The message was verified and the EOC was activated by all agencies listed in the plan. There was representation from the Red Cross, State Police, Radio Amateur Civil Emergency Services (RACES) and IDNS in the EOC. The EOC staff demonstrated the capability for staffing around the clock by double staffing.

The County EOC has the facilities to support an extended operation, including food supplies, sleeping accommodations and showers. The facililty is spacious, has good lighting, furniture and other amenities that would be needed.

The County Board Chairman was in charge. There were briefings held to update the staff on the situation, however, it is recommended the staff participate in the briefings. The staff participated in decision-making with the County Board Chairman.

The capability to communicate with the appropriate organizations is through the use of the NARS, commercial telephone and radio. All communication sytems were demonstrated during this exercise.

The County Health Department has staff available to work with farmers, food worker and water utilities within the ingestion pathway.

The EOC staff were active in alerting the public through updates to the EBS and dispatching route alerting vehicles. A deficiency was noted in that route alerting in Albany used an evacuation message in an area which had sheltering as its protective action recommendation. The sirens were immediately activated by the Sheriff's dispatcher upon receiving a NARS message from Illinois ESDA.

The resources were available and used to control access to the affected areas. Road blocks and route alerting were demonstrated. The EOC staff had lists that included names, addresses and telephone numbers of the mobility impaired. The resources for an evacuation included lists of contact persons for buses and other special vehicles and the alerting and activation of operators for vehicles.

A supply of low-range dosimeters, record keeping cards, TLDs and simulated Potassium Iodide was isssued to all emergency workers including the EOC staff. This issuance was to acquaint EOC with the use of Potassium Iodide and the instruments. The EOC is located outside the 10-mile EPZ. IDNS representatives were instrumental in explaining the use of potassium iodide and charting the location of the plume.

There was a news media briefing room at the Law Enforcement Center. The Whiteside County ESDA Coordinator served as the Public Information Officer (PIO).

The recovery and reentry procedures implemented by the EOC staff were in concert with the plan. When the order for recovery and reentry was received from the State, the IDNS representative informed the EOC staff of the status at the station. There was an explanation of the health effects of low level exposure. Instructions were issued for buses to transport the evacuees to their homes. The EOC staff was asked to inform the Operations Chief upon completion of these tasks.

II. EXERCISE REPORT

A. Introduction

1. Exercise Background

This was the fourth full participation exercise for Rock Island and Whiteside Counties resulting from a simulated accident at the Quad Cities Nuclear Power Station. Following are the dates of previous exercises: May 20, 1981; August 24, 1982; and May 11, 1983. These exercises also included the municipalities of Albany, Cordova, and Port Byron.

2. Participating and non-participating State and Local Governments

The Emergency Planning Zone (EPZ) of the Quad Cities Nuclear Power Station impacts on Rock Island and Whiteside Counties and the municipalities of Albany, Cordova, and Port Byron. In addition, it also includes the Counties of Clinton and Scott in the State of Iowa. (Iowa will be reported upon by FEMA Region VII).

The following Illinois Counties located in the 50-mile EPZ did not actively participate in the exercise: Bureau, Carroll, Henry, Jo Davies, Knox, Lee, Mercer, Ogle, Stark, Stephenson, Warren. It was not a part of the scenario for these Counties to actively participate.

3. List of Evaluators

The Federal offsite evaluation team consisted of 14 members:

Wallace Weaver	FEMA	Exercise Director
Dan Bement	FEMA	Evaluation Team Leader State EOC
Cheryl Malina	USDA	Evaluator State EOC
Pete Tedeschi	EPA	Evaluator Field Monitoring
Jim Opelka	Argonne	Evaluator Radiological Health Lab
Ed Jascewsky	DOE	Evaluator State EOC and Illinois Department of Nuclear Safety

Gordon Wenger	FEMA	Evaluation Team Leader Rock Island County
Robert Shapiro	FEMA	Evaluator State Forward Command Post
Walter O'Keefe	FEMA	Evaluator Congregate Care (Both Counties)
Byron Low	DOT	Evaluator Field Activity (Both Counties)
Sheila Huff	DOI	Evaluator Rock Island County
Ed Robinson	FEMA	Evaluation Team Leader Whiteside County
Woodie Curtis	FEMA	Evaluator Whiteside County
John Schad	FEMA	Evaluator News Media Center (JPIC)

4. Evaluation Criteria

The criteria used for evaluation of this exercise was developed from NUREG-0654/FEMA REP-1, Revision 1, "Criteria for Preparation and Evaluation of radiological Emergency Response Plan and Preparedness in Support of Nuclear Power Plants." The "Modular Format for Uniformity of Radiological Emergency Preparedness Exercise Observations and Evaluations," dated June 1983, was used for exercise evaluation. The exercise and this report is under the policy and guidance of the memorandum of August 5, 1983.

5. Summary of Exercise Objectives

The exercise objectives were to demonstrate ability to mobilize staff and activate facilities; staff round-the-clock; coordinate and make decisions; communicate with appropriate organizations; mobilize and deploy field monitoring teams; demonstrate appropriate equipment and procedures for determining radiation levels; airborne radioiodine concentrations, collecting, transporting, and analyzing samples; demonstrate ability to project dosage to the public determine protective measures, available shelter and evacuation time estimates; ability to project dosage to the public via the ingestion exposure pathway and protective actions; alert the public and distribute appropriate instructions; control access to evacuated

area and effect an orderly evacuation of mobility-impaired individuals; monitor and control emergency worker exposure; decision-making on the issuance and administering of KI; brief the media; rumor control; need for Federal assistance; estimate total population exposure; determine and implement appropriate measures for recovery and reentry.

The adequacy of ambulance facilities and procedures for handling contaminated injured individuals and the adeqacy of the hospital facilities and their procedures for handling these individuals was demonstrated September 11-12, 1984 in the annual Medical Drill. The evaluation of the Medical Drill is an included in this report. The activation of the outdoor siren system was conducted September 4, 1984. The result of the test is Attachment A to this report.

6. Summary of Scenario

The exercise scenario was designed to demonstrate:

a. That participating organizations can alert, notify, and mobilize emergency response personnel to respond to the emergency in a timely fashion.

b. That State radiation staffs can assess the accident and make appropriate recommendations to the decision-makers at the State Emergency Operations Center (EOC).

c. That decisions can be made with regard to protective measures for both the plume and ingestion exposure pathway emergency planning zones (EPZ).

d. That the local jurisdiction can provide control of access to restricted areas and effectively perform a coordinated evacuation.

e. That all participating local and State jurisdictions can coordinate all information releases to the media and general public.

f. That the various emergency response organizations can coordinate protective measures and actions with the general public (e.g., warning notices and recommendations for protective measures for the plume exposure pathway (EPZ).

g. The ability to effect a return to normal conditions by utilizing appropriate reentry procedures and to terminate the exercise at the County and State level and the public.

The State scenario called for an "Alert" to occur between 6:30 - 7:00 p.m. The State EOC received the notification of the "Alert" at 7:00 p.m. The "Site Area Emergency" classification was scheduled to occur between 8:15 - 8:45 p.m. The State was notified at 8:16 p.m. The "General Emergency" classification was scheduled to occur between 10:45 - 11:35 p.m. The state EOC was notified of the "General Emergency" at 9:44 p.m. Reentry procedures began with the termination of the release at 2:30 a.m., based on monitoring data indicating safe levels of radioactivity.

7. Description of State and Local Resources Planned to be used in the Exercise

During the exercise, the State used the State Emergency Operations Center in Springfield, the Forward Command Post at Hillsdale; the News Media Center at Morrison; the Radiological Mobile Lab at Hillsdale, along with the necessary personnel to staff these facilities. They also planned to use the necessary communications systems to 1) alert and mobilize staff, 2) conduct emergency operations; and 3) disseminate emergency warning and information to the public.

In addition to their EOC facilities, EOC staff, communications and warning systems, Rock Island and Whiteside Counties also demonstrated their capabilities to warn, evacuate, relocate and care for persons in the EPZ. They also chose to demonstrate their capability to control access to the evacuated area.

8. Significant Deficiencies Noted in Past Exercises

a. State

There were no significant deficiencies.

b. Rock Island County

NUREG-0654/FEMA-REP-1, Rev. 1, E.1. It was recognized during the exercise of May 11, 1983, that Rock Island Communications Command notified the Emergency Operations Centers at Port Byron and Cordova ofthe "Unusual Event" and "Alert." But the Hillsdale Fire District was not a part of that notification procedure as stipulated in the plan.

NUREG-0654/FEMA-REP-1, Rev.1, G.4.c. During the exercise of May 11, 1983, 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 control.

NUREG-0654/FEMA-REP-1, Rev. 1, J.10.k. During the May 11, 1983 exercise, it was 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.

NUREG-0654/FEMA-REP-1, Rev. 1, K.3.a. May 11, 1983 Exercise Report. "The dosimeters used are CDV-742s. Each organization has dosimetry - TLDs, 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."

NUREG-0654/FEMA-REP-1, Rev. 1, M.1. May 11, 1983 Exercise Report. "Upon entering the recovery and reentry 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 reentry of the residents into the area previously evacuated. It is necessary this be demonstrated.

c. Whiteside County

NUREG-0654/FEMA-REP-1, Rev. 1, G.3.a. May 11, 1983 Exercise Report. "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.

NUREG-0654/FEMA-REP-1, Rev. 1., G.4.a. May 11, 1983 Exercise Report. "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."

NUREG-0654/FEMA-REP-1, Rev. 1., G.4.b. May 11, 1983 Exercise Report. "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 not County representative at the JPIC. A more comprehensive demonstration must be performed.

All previous significant deficiencies noted above were corrected during this exercise.

9. Exercise Objectives Still to be Effectively Achieved.

The exercise scenario provided ample opportunity for the State and local governments to effectively achieve all of their exercise objectives. All of the objectives chosen for this exercise were demonstrated with one exception. The State of Illinois did not effectively demonstrate the ability to disseminate an initial instructional message to the public within the 10-mile EPZ within 15 minutes of the decision to do so. (see Section III.A.1.) Other deficiencies which did not affect the public health and safety are listed in Sections III.A.2., III.B.2. and III.C.2. of this report.

B. Narrative

1. State of Illinois

a. Activation & Staffing

The activation and staffing of the State EOC was demonstrated. The State staff was notified and mobilized for this "real time" exercise. All State agencies with emergency responsibilities were represented.

A representative from the State was dispatched to the EOF to serve as a liasion and coordinate the State's assistance to the utility.

IDNS activated the staff response through use of a scenario which was initiated approximately three hours prior to the overall exercise. The scenario caused activation and staffing from the initial "Unusual Event" message through a "Site Area Emergency"condition. The scenario enabled the REAC and RAFT contingencies to respond on a real time basis. Up-to-date call lists were available and used as well as the electronic paging system to activate personnel. Activation of all personnel and dispatching of the RAFT capability was accomplished (within a half an hour).

The REAC was staffed with the IDNS Commander and technical and administrative support staff. The overall effort indicated that they had received training and were knowledgeable of their role and

the State plan. Around the clock capability was demonstrated by various methods. These included delayed notifications and activation of certain staff, shift change and double staffing. Incoming staff for shift change were briefed.

The ESDA Operations and Communications Van was prepositioned for purposes of this exercise and functioned as the Forward Command Post. The staff displayed training and knowledge in emergency response procedures. Around the clock staffing was demonstrated by double staffing of the technicians for training purposes. An actual shift change of those in charge of the Forward Command Post consisted of two staff members exchanging EOF and Forward Command Post roles which does not really demonstrate around the clock manning capability.

b. Emergency Operations Management

Emergency operations within the EOC were demonstrated. Briefings were conducted by the EOC Operations Officer and the State agency representatives.

The briefings dealt with changing station conditions and offsite consequences. Exercise decisions were coordinated with the representative from the State of Iowa. The Illinois State agency representatives also participated in the briefings and contributed to the decision-making process.

Some key messages were not logged or made a matter of record (example: record of when the State ordered the Prompt Alert and Notification System (sirens) to be activated.) A record was not made as to when all Counties activated their sirens. Also, times in the state log are not consistent with times in the County logs as to when the sirens were sounded. It is recommended the State conduct, at the start and periodically during the exercise, time checks to ensure all exercise participants are using the same time.

The Illinois Department of Nuclear Safety's REAC staff in Springfield and the Rock Island County EOC staff never did realize the cause of the emergency at the Quad Cities Nuclear Power Station. Whiteside County, the Media Center, and the State Forward Command Post did know the cause of the fire was bombing by suspected saboteurs. Consequently, a deficiency has been determined concerning the flow of information out of the Illinois ESDA EOC in Springfield.

In accordance with the State plan, the REAC was activated. The operations throughout the exercise was headed by the Manager ofthe Office of Nuclear Facility Safety of IDNS.

Copies of the State, County, and Utility's emergency plans are available for reference. Written procedures and/or checklists were available and were used throughout the exercise.

The REAC is equipped with the NARS. Station status from the "Unusual Event" to the "General Emergency" were received directly from the utility at this facility. Protective action recommendations were received from the utililty and the IDNS recommendations were issued to the State. The interaction among the utility, the State of Iowa and the IDNS Commander was demonstrated. Simulated Federal assistance (field teams, mobile laboratory,, aerial measurement system) was requested from the Department of Energy Regional Radiological Assistance Coordinating Office.

A State staff member was in charge at the Illinois ESDA operations and communications van. There were radio technicians on duty who maintained the communication systems, which included landline communication as well as multiple radio connections to the various emergency response organizations. They monitored communications and maintained a log of the messages so that coordination could be completed with the other State agencies operating at the same location.

The State EOC, Springfield, on several occasions failed to transmit messages to the van. Although this was quickly corrected, there should be procedures established to ensure that copies of all messages are transmitted to the van. The operations and communications van was co-located with the state Police mobile and IDNS mobile units with the State Police providing security to the entire area.

Deficiency

A.2.a. Information on the cause of the incident at the Station was not disseminated to the REAC or Rock Island County

Recommendation

The Operations Officer in the State EOC should make sure all local units of government are kept informed of the reasons pertaining to the incident at the utility.

c. Facilities

The building that houses the State EOC staff can sustain a protracted emergency situation. It is a large underground facility that is well equipped with backup gererators, communications equipment, video room, kitchen and a briefing room for keeping the media infromed.

Status boards were clearly visible and were kept up-to-date with current information. Maps were displayed showing the plume EPZ, radiological monitoring points, population by evacuated area, access control points, evacuation points and relocation centers.

The facility used by the IDNS REAC group is a separate and distinct location within thier normal operating office. The facility had sufficient furniture, space, lighting and communications capability. The facility also housed a computer and video display system. A status board visible to all participants was available and used. Also posted in the center was a map depicting the plume EPZ with the sectors and monitoring points labeled. Although other information (evacuation routes, relocation centers, population by sectors) was not posted, they were availble in the facility and their use demonstrated in the exercise.

The Illinois ESDA Operations and Communicatins Van served as that organization's Forward Command Post and was prepositioned at the Riverdale school in Hillsdale, Illinois. This unit was co-located with the Illinois State Police mobile Command Post and the IDNS mobile units. The Illinois ESDA van had the basic communication systems necessary to carry out the emergency response functions of the Forward Command Post. In addition to primary and secondary communication systems, the van has maps and charts depicting population distribution, evacuation routes, relocation centers, and other data for use by decision makers.

d. Communications

The State communications system is a network with the Nuclear Accident Reporting System (NARS) as the basic link for interaction between the utility, the State, and local EOCs. Commercial telephone, radio, and telefax support and supplement the NARS system.

Illinois ESDA communications center in the state EOC in Springfield is a 24-hour seven days per week facility. The dispatcher on duty utilized the roster of various State agency duty officers and the roster of Illinois ESDA staff.

Systems demonstrated during the Quad Cities exercise included commercial telephone, NARS, radio, teletype, and telefax.

Some interference from the Quad Cities Nuclear Power Station was experienced on the NARS. Corrective action was taken when interference was experienced. The Operations Officer used commercial phone to activate the EBS at 9:08 p.m.

The IDNS personnel in the REAC used various modes of communications. They demonstrated the primary and backup communication links between the REAC Command Post and the State EOC, local EOCs, State of Iowa, and the licensee (Technical Support Center and their EOF). These included telephone, electronic pagers, the NARS, radio and telecopier.

One concern during the exercise arose when the primary communication link between the REAC and the licensee TSC was not available. Although the State's NARS was available as backup, there was a definite indication that it was not to be used. It caused the REAC personnel to by-pass the direct TSC link and attempt to obtain the desired information from the licensee EOF. It is recommended that the use of the NARS as backup to the normal telephone lines be reviewed.

The operations and communications van has multiple telephone lines with radio backup to the emergency response organizations including contiguous States. There was an intercom system established between all of the State agency mobile units that were co-located at the Riverdale School parking lot so that coordination could be accomplished among the three agencies (Illinois ESDA, Illinois State Police, and Illinois Department of Nuclear Safety).

The facsimile machine in the Illinois ESDA Van malfunctioned at the beginning of the exercise without a replacement available, therefore, hard copy messages from the State EOC could not be received. The state compensated for this loss by transmitting messages by voice and recording the information onto message forms.

e. Dose Assessment and Protective Action Recommendation

During the initial stages of the exercise, there was no actual release of material to the environment or radiation levels outside the containment. The initial protective action recommendation (evacuation of 0-5 miles) was based on IDNS's understanding of the deterioration of the Station conditions.

As the exercise progressed, IDNS used in-plant radiation levels (inside and outside of containment) to project expected doses. The projected dose estimates were promptly calculated using a computer and were checked by hand. The computer was also used to generate color graphics which provided isodose lines of the plume. Meterological conditions and release estimates were input into the computer codes to update the information.

Protective action recommendations were considered for both inhalation and ingestion pathways. The first protective action recommendation for the inhalation pathway was the evacuation of the appropriate sector within 5 miles of the Station. As the exercise progressed, and the sectors in Iowa became affected, IDNS carefully and effectively coordinated this effort with Illinois ESDA, the State of Iowa, and the utility.

Additional protective action recommendations were based on a number of factors including dose, number and type of people in sectors, evacuation times, and weather conditions in the plume exposure pathway. IDNS recommended an ingestion protective action placing of milk on stored feed within a 0-10 mile radius, in the affected sectors. Because of projected doses, protective actions outside the 10 mile radius were not deemed necessary.

The REAC Commander recommended use of Potassium Iodide based on the potential of a release versus an actual release. The use of Potassium Iodide by emergency workers in the field was on a voluntary basis. The use of Potassium Iodide was not recommended for the general population. These recommendations were transmitted to the IDNS liason at the local EOC's.

f. Public Alerting and Instruction

The State did play a role in the system of public alerting. As a precautionary measure, the State of Illinois, in concert with the State of Iowa, activated outdoor warning sirens (simulated) within a 10 mile radius of the Quad Cities Nuclear Power

Station. The Illinois State EOC Operations Officer, at 8:42 p.m., instructed the Counties to sound their outdoor sirens. The Counties activated their sirens within 15 minutes of the time the State of Illinois decided. The time that the sirens would be sounded was not coordinated with the result that Whiteside County sounded its sirens immediately upon receipt of the State's order and Rock Island County utilized the full 15 minutes before siren activation.

The State of Illinois did not activate EBS WHBF Radio until 9:08 p.m. Consequently, it took 26 minutes from the time the State decided to activate the Prompt Alert and Notification system until the initial instructional message was announced (simulated) on EBS Station. This is a deficiency for the State of Illinois since the EBS Station was not activated within 15 minutes of the States' decision to activate the Prompt Alert and Notification System.

A second EBS message was released at 10:15 p.m., notifying residents of the "General Emergency" status and recommending evacuation and sheltering information. Evacuees were advised to relocate to the Rock Island High School.

Another deficiency for the State of Illinois concerns the press release prepared at the Illinois ESDA State EOC in Springfield. The press release described evacuation sectors by letter designations rather than commonly known landmarks or boundaries. The ESDA State spokesman at the Media Center did verbally describe the evacuation sectors by commonly known landmarks and used a map display to outline the evacuation sectors.

Deficiency

E.6. It took 26 minutes from the time the State decided to activate the sirens to alert the public until the initial instructional message was announced (simulated) on the EBS Station. EBS activation was 25 minutes after siren activation in Whiteside County and 11 minutes after siren activation in Rock Island County.

Recommendation

The EBS Station should be activated and the announcement broadcast within 15 minutes of the decision to activate the Prompt Alert and Notification System. It is further recommended that

siren activation be coordinated to occur simultaneously in both counties. EBS activation should then be timed to closely follow the siren activation

Deficiency

J.10.b. The press release, prepared at the State EOC described evacuation sectors by letter designations rather than landmarks or boundaries.

Recommendation

The press releases describing evacuation sectors should be written giving commonly known landmarks and boundaries.

g. Protective Actions

Decisions to implement protective actions were weighed and discussed among state agency representatives.

Ingestion pathway activities were handled by the Department of Health in coordination with IDNS and the State Department of Agriculture.

Protective action recommendations were based on the utility's recommendation. At "Site Area Emergency", out to 2 miles cattle were placed on stored feed. At "General Emergency", out to 10 miles cattle were placed on stored feed.

h. Radiological Exposure Control

This is discussed in part k. (Field Monitoring) of this section.

i. Media Relations

The State PIO and the technical people made presentations which the news media could comprehend and audiovisual materials were used. There was discussion among the participants prior to the briefings. The briefings were structured and the participants were capable of answering the news media questions.

The News Media Center could experience problems should a real incident occur. It is not air conditioned which would be most difficult to work in during warm weather and it would be difficult to heat in the winter months. With no space provided for a staff area, releases had to be processed at the EOF across from the News Media Center. This

caused a problem in getting the releases out. The News Media Center is too small to handle the media should a real incident occur. There is no space for interviews, filing of media stories (although 22 phones were provided). Overhead projectors, screens, easels, white boards and sound systems were used during media briefings. Walls were draped with canvas to provide better sound quality and improve appearance.

News media kits were available to provide information to the press. "Emergency Information" booklet was provided. As indicated before, the audio visual materials were used durng briefings.

The State of Illinois for rumor control, has 2 lines manned in the Springfield ESDA office. These were activated for this exercise.

A news media briefing room was set up in the Illinois ESDA EOC facility. Maps and other displays were available for use during the briefings. The information staff at the State EOC functioned as the State rumor control center. News Media inquiries were directed to the News Media Center.

Deficiency

G.3.a. The News Media Center facility is small and lacks necessary amenities. Heating and air conditioning is a problem; press releases had to be processed at the EOF across from the Media Center.

Recommendation

Action should be taken by the utility to provide the facility necessary to house the News Media Center. The State of Illinois should work with the utility to insure that the needs of State and local representatives at the News Media Center are adequately addressed.

j. Radiological Laboratory

The IDNS mobile lab had equipment to take measurements of samples and determine iodine concentations of 50 microcuries/liter in milk and 10 to the minus 7 microcuries/cubic centimeter in air using the silver zeolite cartridge. Other radioiodides were evaluated using energy peaks in the energy spectrum exhibited on the multichannel analyzer. Equipment was calibrated when it arrived and was checked, using standardized sources of impregnated water to represent milk and water, impregnated plastic to represent vegetation and air and an impregnated silver zeolite crystal. Equipment

consisted of a Ge-LI detector and a multichannel analyzer capable of analyzing several Ge-LIs. Since only one Ge-LI was available, it would have limited the sampling to 20 samples per hour. The Evaluator was informed that several additional Ge-LIs will be available in the near future.

The staff on both shifts had training in radiation chemistry and knew their equipment capabilities and procedures. Both shifts exhibited the capability to measure samples and calibrate their equipment. Samples measured were air, filters, silver zeolite cartridges, vegetation, soil and milk. Written SOPs were followed.

A computer generated the statistical accuracy of the measurement. Data was transferred from the computer at the mobile lab to the computer at the REAC. High band and low band radio and landline telephones were also available for this purpose. Hot and clean areas were kept segregated and there was a location for disposition of contaminated samples and equipment such as gloves. Contaminated samples were properly labeled, logged-in and stored.

k. Field Monitoring

The field monitoring teams were pre-assembled at the IDNS Headquarters in Springfield. Most of them work out of the headquarters office, however, some came from the State Regional offices and, therefore, were pre-positioned. The IDNS demonstrated the call up of personnel by calling them into the briefing room from other parts of the building.

The equipment for the teams is kept in the mobile vans so that it is always ready for use and there is no delay in having to gather the equipment and load it into the van.

The field monitoring equipment demonstrated is suitable for measuring both high and low levels of radioactivity. The equipment is calibrated at least every six months. The most recent calibration date is posted on the instruments. To assure that all instruments are in the case, team members check the instruments in the case against a list posted in the case. The instruments are such that both high energy and low energy radiation can be detected and measured. The instruments are checked against a radiation source to assure proper functioning before they are used in the field.

The technical operatons performed by the field monitoring teams showed that they were familiar with the techniques for determining ground deposition versus airborne radiation. They demonstrated familiarity with their measuring equipment and its use. Written SOPs are available but were not necessary for the team since they use the equipment and measuring techniques in their day-to-day work.

Samples were properly collected for soil and grass deposition measurement. They used maps to find their sampling point. The procedures and techniques used are those normally recommended for environmental monitoring.

The milk sample was gathered by public health rather than IDNS and proper procedures were not utilized. Protective clothing (gloves) was not worn and milk was spilled on the container and hands of the sample taker. Consequently, a deficiency was determined concerning the collection of the milk sample.

The Radio communications quality between the field teams and the controller was good. The terrain for radio communications is such that an update was not necessary. The van, located at the staging area at the Riverdale school, had a tower antenna that could be reached by all field teams so that messages could be transmitted through the tower antenna to other field teams by any field team that may be in a dead spot.

The field monitoring teams have anti-contamination clothing available.The use of potassium iodide was simulated. Pocket dosimeters were worn and readings were solicited by RAFT Command periodically. Records of exposure doses were kept by RAFT Command. The field team vehicle had a dosimeter charger for field team use.

Deficiency

0.4.c. Protective clothing (gloves) was not used in the gathering of the milk sample.

Recommendation

A training program should be initiated for health department personnel who have the responsibility for taking milk samples within the ingestion pathway.

1. Recovery and Reentry

Recovery and reentry procedures began with the termination of the release. Relaxation of protective actions was based on monitoring data indicating safe levels of radioactivity (background levels recorded by monitoring teams).

Reentry and recovery decisions were communicated to State agencies. Illinois Department of Transportation instructed field personnel to remove all boundries and detour signs. Shelters in Rock Island and Morrison were closed.

m. The scenario exercised the capabilities of the sttaff of the State EOC, especially the "Real Time" alert, notification and mobilization of State personnel. It tested and allowed the demonstration of the deployment of the IDNS mobile laboratory (REAC) and field teams (RAPT). There was long periods when the field teams were inactive. In one such instance, the field team was idle for one (1) hour and 40 minutes. The reason for the long period of idleness was not given. In such situations, the controller should keep the field personnel appraised of the reason for the lack of activity.

It is recommended the next exercise scenario be designed to have a requirement for emergency worker exposure control demonstrated more fully by the IDNS (REAC) staff in Springfield.

The scenario provided good activity which stimulated interest in the media. The information they received concerning the operation of the Nuclear Power Station will be helpful in future reporting.

2. Rock Island County

a. Activation and Staffing

The Rock Island County EOC was staffed by the appropriate agencies as described in the plan. The decision was made to mobilize the staff at 7:06 p.m. The notification of "Alert" status was received via the NARS from the Springfield EOC and verified by Rock Island Communications Command. Staffing the EOC was completed by 8:30 p.m. Those present were: Chairman of the County Board, County Health Department, County Sheriff, County Highway Department, American Red Cross, Civil Air Patrol, Rock Island Emergency Services and Disaster Agency Director, Illinois Department of Nuclear Safety, Regional School Superintendent, and the Illinois ESDA Liaison.

The Rock Island EOC staff, displayed a level of training to perform their duties and responsibilities. However, it appears a greater familiarity with the NARS form and basic procedures would improve their performance. Port Byron EOC staff need further training on interpretation of information on the NARS form.

A shift change did take place with nearly all positions. Attention was given to those coming on duty. The reliefs were briefed and the transfer of responsibility took place.

The American Red Cross Disaster Plan for Nuclear Accidents is current with State requirements. The personnel are assigned to continue the training and use a varied scope of flexibility to their participation.

A standard notification system is used and available personnel assigned on a need basis. Based on the scenario, all requirements were met.

Deficiency

F.1.a. Information recorded on NARS message forms was improperly interpreted in the Port Byron EOC.

Recommendation

Further training is needed on interpretation of information that is to be recorded on the NARS messages.

b. Emergency Operations Management

The County Board Chairman, as so designated in the plan, was in charge of the Rock Island County EOC. He held staff briefings every thirty minutes which included the staff, keeping them current on exercise activities. From the initial notification and the decision to activate until just prior to the "Site Area Emergency" the County Board Chairman and the EOC staff had no knowledge of what caused the classification. Even though a bomb threat took place at 6:00 p.m. and a simulated explosion occurred at 6:30 p.m., the County was not notified of the action until after 8:30 p.m.

It is believed this information is necessary to assist the emergency response organizations in the EOC and provide time to project planning. There is a provision for an entry on the NARS form but the code number was not provided. The staff could have

been more actively involved in the decision-making process if more vital information would have been provided them.

Plans and references were available and used by the staff. The message log maintained was a sequence file of NARS messages. Upon receipt of the NARS messages, they were recorded on the form, copied (multiple) and distributed to each agency. The system appeared efficient. Access control begins on the road entering the property and again upon entry to the EOC building.

Protective actions were issued upon recommendation of the IDNS representative.

c. Facilities

The County EOC is furnished with the necessary accommodations to sustain long term operations. An emergency generator is available and was demonstrated.

Emergency classifications were appropriately posted using suitable lettering and color background. A status board was conspicuously located and used. There were events of significance which would serve to inform a newcomer that could have been posted to increase communications.

The plume sectors were posted and labeled. Evacuation routes were announced but not posted. Relocation center information was available but not posted. Access control points were simulated. The information was available but not posted. Radiological monitoring information was available. Population by evacuation area was posted but not referenced.

Throughout the exercise, precise times became of concern and important in implementing actions and procedures. All times reported and recorded must be standardized.

Deficiency

A.2.a The times posted on the status board were incorrect, i.e., the time that was shown was the time of posting the information, not the time the action was initiated or occurred.

Recommendation

The status board should record the time the event occurred rather than the time the event was posted.

d. Communications

Communications were primarily by dedicated telephone and commercial telephone. Some radio was used in a primary capacity and alternatively as backup.

Hard copy of IPRA messages were transmitted to the County EOC from the media center. They were legible and promptly received in the County EOC.

e. Dose Assessment and Protective Action Recommendation

This is a State function

f. Public Alerting and Instruction

The County EOC initiated the simulated sounding of the sirens. The NARS message #2, 8:45 p.m., contained the classification upgrading to "Site Area Emergency" and recommended sounding the sirens. The activation of the sirens occurred at 9:00 p.m. Prescripted public instructions are contained in the State plan. Discussion in the EOC as to sheltering and evacuation was by sector. No mention was made of familiar boundaries and landmarks.

The EBS stations were periodically contacted and updated.

The results of the outdoor siren system test conducted on September 4, 1984 is included as Attachment A of this report.

g. Protective Actions

Protective actions were implemented by the County following the recommendation of the Illinois Department of Nuclear Safety. The activation of traffic control points and road blocks was simulated. Sufficient resources are available for bad weather conditions and removing impediments from the roadway.

Sufficient staff and equipment is available to control all traffic and access functions. Mutual Aid Agreements exist to provide assistance.

Included in the plan and exhibited in this exercise was the evacuation of mobility impaired persons from Cordova. This demonstration was conducted under a separate scenario.

The Red Cross Volunteers were called at their homes and responded to open the Coal Valley Bicentennial

School. All areas of the school were ready to receive the evacuees one (1) hour prior to arrival. The mass care and sleeping facilities were simulated, however, the Volunteers were aware of the needed equipment and its availability. The Volunteers at the Congregate Care Center did an excellent job.

Registration of all evacuees at the Cordova EOC by Emergency Medical Technicians and Emergency Services and Disaster Agency personnel was concisely and quickly accomplished. The Congregate Care registration at Coal Valley was handled in an orderly and thorough manner. Each evacuee was interviewed with concern and courtesy. The Coal Valley EMTs checked vital signs on each person and recorded them on the forms provided by the Cordova Fire Department

h. Radiological Exposure Control

Even though the County EOC is located well outside the 10 mile EPZ, dosimeters are stocked at the EOC and with emergency response agencies. As a training measure, 0-200R direct reading dosimeters were distributed to the EOC staff. The Rock Island ESDA volunteers handed out the dosimeters and instructed on their use. Records were kept and maintained. The supply of dosimeters appears sufficient. Low range dosimeters are in supply.

Potassium Iodide distribution was recommended and discussed as a voluntary measure. Its use was a point discussed in some detail by IDNS.

i. Media Relations

Within the County EOC, room is provided for press briefings. The County Board Chairman briefed the media.

j. Recovery and Reentry

Evacuation had been ordered 0-2 miles in all sectors and out to 5 miles in the downwind sectors. Protective action relaxation was ordered following the Illinois Department of Nuclear Safety recommendation. Reentry/Recovery was properly implemented, in logical sequence. Proper safety precautions were discussed and emergency workers advised.

k. Scenario

The scenario provided Rock Island County with the opportunity to fully demonstrate the objectives chosen for this exercise as well as to correct areas of past significant deficiencies.

One problem in the scenario was that the Rock Island County Sheriff was not notified directly of the suspected sabotage at the plant. In a real incident of this nature the Rock Island County Sheriff would be notified directly of the events at the plant.

l. Medical Support

The adequacy of ambulance facilities and procedures for handling contaminated injured individuals and the adequacy of the hospital facilities and their procedures for handling these individuals was demonstrated September 11-12, 1984 in the annual Medical Drill. The first day consisted of two training sessions; the first for hospital personnel and the second for ambulance personnel. The second day encompassed the exercise; two contaminated individuals with injuries were transportated from the Quad Cities Nuclear Power Station by ambulance to the Moline Public Hospital for treatment.

The first victim was transported by Daley Gibson ambulance and personnel. The ambulance driver was not dressed in protective clothing and the other attendant was only partially outfitted in poor quality protective clothing. The victim was not properly covered. There was ample opportunity for contamination of the attendants, ambulance and equipment.

The second victim was transported by the Illini Ambulance Services ambulance and personnel. Both the attendants and the victim were appropriately dressed and protected from any possible contamination.

The attending physician, who was treating a real emergency patient, was unavailable during the treatment of the first patient. Consequently, there was inconsistancy in the application of procedures to assure that there was no spread of contamination when the patient required transfer for immediate surgery. Without the direction from the consultant exercise coordinator, the transfer would not have been made consistant with established procedures. In addition, during radiological monitoring the patient was touched by the survey instument.

In contrast, the second patient was medically managed in an efficient manner by the attending physician and support personnel. Decontamination of the second patient by use of the wash tray on the exa ining table continued to be a problem. For the first patient the dirty water barrel was not placed under the drain allowing contaminated water to discharge onto the floor of the examining room. For the second patient, the attendant doing the wash applied too much water pressure. Due to poorly fitted splash boards contaminated water ran out the sides onto the attendant (who was wearing protective clothing) and onto the floor.

A future exercise should demonstrate the availability of adequate supplies and equipment to simultaneously meet the needs of more than one patient.

Deficiency

L.4. Ambulance personnel did not demonstrate proper procedures to prevent the possible spread of contamination during the transport of a contaminated injured victim.

Recommendation

Additional training of ambulance personnel in the proper procedures for handling radiologically contaminated accident victims is needed.

Deficiency

L.1. Hospital personnel did not demonstrate proper procedures to prevent the possible spread of contamination during the handling of a contaminated injured patient.

Recommendation

Additional training of hospital personnel in the proper procedures for handling radiologically contaminated patients is needed. Future exercises should include medical support and transportation without any external supervision or direction.

3. Whiteside County

a. Activation and Staffing

The EOC was activated at the "Site Area Emergency" classification by a telephone call at 8:49 p.m. from the Illinois ESDA. The call was verified and the mobilization procedures were demonstrated, using a

written call list. There are procedures in place for directing activation and call-up of the staff at any time during the day or night.

All organizations called for in the plan were present in the EOC. Other organizations present, although not called for in the plan were RACES (Radio Amateur Civil Emergency Services), American Red Cross, Illinois State Police, and the Illinois Department of Nuclear Safety (INDS).

The capability to staff the EOC for an extended period of time was demonstrated by double staffing. The alternates did take over their respective positions for a short time.

b. Emergency Operations Management

The County Board Chairman is the individual that was in charge. He is also designated as the individual in charge in the County plan. There were periodic briefings held to update staff on the situation with the participation of representatives of the organizations represented in the EOC. There were copies of the plan available for staff in the EOC. The staff had checklists pertaining to their respective organizations' responsibilities and personnel availability lists. There were lists of individuals with infirmities and their respective transportation needs in case of an evacuation. There were lists of buses and drivers that are available for emergency response actions. Messages logs were kept. Incoming press releases and messages were duplicated and passed out to selected EOC staff.

The EOC security was provided by deputies of the County Sheriff's office. Personal identification, in addition to being listed on the rosters, was required for entry into the EOC.

c. Facilities

The EOC is located in the basement of the Whiteside County Law Enforcement Center. The facility is furnished, spacious, and has good lighting. There were 13 telephones in the working staff area, with 11 emergency response organizations present. The facility houses the County Jail in addition to the EOC and the Sheriff's Communications Center. It can support extended operations for an indefinite period. The facility has showers, beds and bedding, and a kitchen which is routinely stocked with food for feeding the jail population. There is a backup power generator for the entire complex, including the EOC.

The EOC staff kept message logs and a status board was kept updated. The message board was large but hard to read by EOC staff because of glare that was caused by light reflections onto the board's plastic covering. The use of a broad writing pen or marker may diminish the glare problem. All significant events were posted on the status board. Above it was the current classification level. Maps were posted on the wall facing the working group. There were maps of the plume EPZ, with sectors labled, evacuation routes; access control and radiological monitorng points. The required maps on relocation centers and population by evacuation areas were available but not posted.

The County plan states that the primary EOC is located in the County Building instead of the Law Enforcement Center. It is recommended that the next revision of that section of the plan reflect the correct location.

d. Communications

There are primary and backup communication systems in place with all necessary organizations, except the EBS station. It is suggested the County consider using RACES as a backup communication system with the local EBS Station.

The communication system used between the school buses and the EOC is somewhat unique, whereby they put a RACES operator on the bus and have two operators in the EOC. With this system they can communicate with each bus and consequently know when the bus leaves, if anything happens enroute and when it arrives at the destination The County should be commended on this particular procedure. The procedure is not a daily routine but is to be implemented in a radiological emergency.

e. Dose Assessment and Protective Action Recommendation

The County demonstrated the capability to administer potassium iodide to the emergency workers. There was a simulated distribution to all emergency workers early in the exercise and when the decision was made for a need to take potassium iodide, the information was communicated to the emergency workers in the affected areas. They also issued potassium iodide to all participants in the EOC, although the EOC is located outside the 10 mile EPZ.

f. Public Alerting and Instruction

The EOC staff had an active role in alerting the public of an incident at the nuclear power Station. The message from Illinois ESDA to activate the warning system was received at 8:49 p.m. with the sirens activated at 8:50 p.m. (simulated) by the Sheriff's dispatcher. The route alerting vehicles were dispatched. The EBS Station was activated and prescripted messages were used.

g. Protective Action

The County Health Department works with State officials to implement the necessary protective actions for farmers, food processors and water utilities.

A Federal Evaluator traveled the designated evacuation route of Garden Plain Road from Morrison to IL 84. County roadblocks were in place as necessary in the affected area.

The Albany Fire Department is responsible for the route alerting activities. During the exercise, the route alerting vehicles covered only the city limits of Albany. In an actual emergency, the fire department would be responsible for covering the entire area within the EPZ.

During the exercise, three fire trucks were assigned to cover the city. The Evaluator observed and followed one vehicle on its rounds. At times the truck was driving a little too fast along the route. None of the route alerting teams had a route map of the areas to cover. They were briefed before being sent out. The drivers are familiar with the town. The Fire Chief indicated maps are going to be placed in every truck in the future.

The public address system on the route alerting vehicles was not demonstrated because the Mayor of Albany did not want to unduly alert the general public. The standard evacuation message contained in the Quad Cities IPRA manual was provided to the teams. The standard message read was "Attention: There has been an incident at the Quad Cities Station and the Governor has requested that all area residents begin evacuating. Tune your radio to WHBF-1270 on the AM dial or 98.9 on the FM dial for updates on the situation."

The Albany EOC was well organized and prepared. Appropriate actions were observed being taken.

Deficiency

E.5. The standard message caused a deficiency during the exercise due to the fact that Albany was in an area to be sheltered rather than evacuated.

Recommendation

Prescripted messages should be prepared for areas that are to be sheltered.

h. Radiological Exposure Control

There were low range CDV 742 and simulated thermoluminescent dosimeters and radiation exposure record-keeping cards provided to all individuals in the EOC along with an issuance of potassium iodide. There were two IDNS representatives at the EOC. The County had chargers available for the dosimeters. IDNS explained the need for dosimeters for emergency workers that may travel into the affected areas. They were aware of decontamination procedures and kept the EOC staff abreast of radiological releases, wind shifts and radiation levels within the affected areas.

i. Media Relations

All media arriving at the EOC would be directed to the JPIC. The County PIO at the EOC formulated messages for approval by the County Board Chairman. After being approved, the messages were datafaxed to the News Media Center for release to the media.

j. Recovery and Reentry

Upon receiving the order for recovery and reentry from the State, an IDNS representative informed the EOC staff and suggested that they inform their respective staff, including those that were on standby. There was an explanation of safety precautions and possible health effects of low level exposure. Instructions were that buses should be readied to transport evacuees in shelters to their residences. The staff was asked to inform the EOC upon completion of tasks and the closing of the shelter.

k. Scenario

The scenario provided ample activity to drive the exercise and test the deficiencies found in the previous exercise. It was realistic from the standpoint of activation of the EOC, alert and notification, evacuation of the mobility impaired, direction and control, and recovery and reentry.

III. SUMMARY LISTING OF DEFICIENCIES

UTILITY: Quad Cities Nuclear Power Station

Illinois (State)

III. Summary Listing of Deficiencies

August 28-29, 1984 (Date)

A. Deficiencies Affecting Public Health and Safety

Illinois (Community)

NUREG Item	Narrative Statement of Deficiency	Corrective Action Proposed	Scheduled Date	Actual Date
E.6.	It took 26 minutes from the time the State decided to activate the sirens to alert the public until the initial instructional message was provided to the EBS.			

UTILITY: Quad Cities Nuclear Power Station

Illinois (State)

III. Summary Listing of Deficiencies

August 28-29, 1984 (Date)

B. Other Deficiencies

Illinois (Community)

NUREG Item	Narrative Statement of Deficiency	Corrective Action Proposed	Scheduled Date	Actual Date
A.2.a.	Information on the cause of the incident at the plant was not disseminated to the REAC or Rock Island County.			
G.3.a.	The News Media Center facility is limited in space and furnishings. Heating and air conditioning is a problem. Press releases had to be processed in the EOF, a building separate from the News Media Center.			
J.10.b.	The press release, prepared at the State EOC, described evacuation sectors by letter designations rather than landmarks or boundaries.			

UTILITY: Quad Cities Nuclear Power Station

Illinois (State)

III. Summary Listing of Deficiencies

August 28-29, 1984 (Date)

B. Other Deficiencies

Illinois (Community)

NUREG Item	Narrative Statement of Deficiency	Corrective Action Proposed	Scheduled Date	Actual Date
0.4.c.	Protective clothing (gloves) was not used in the gathering of the milk sample, allowing contamination of the worker's hand by spilled milk.			

UTILITY: Quad Cities Nuclear Power Station

Illinois (State)

III. Summary Listing of Deficiencies

August 28-29, 1984 (Date)

A. Deficiencies Affecting Public Health and Safety

Rock Island County (Community)

NUREG Item	Narrative Statement of Deficiency	Corrective Action Proposed	Scheduled Date	Actual Date
	None			

UTILITY: Quad Cities Nuclear Power Station

Illinois (State) | III. Summary Listing of Deficiencies | August 28-29, 1984 (Date)

B. Other Deficiencies

Rock Island County (Community)

NUREG Item	Narrative Statement of Deficiency	Corrective Action Proposed	Scheduled Date	Actual Date
A.2.a.	The times posted on the status board were the times of the posting.			
F.1.a.	Information recorded on NARS message forms was improperly interpreted when posted in the Port Byron EOC.			
L.1.	Hospital personnel did not demonstrate proper procedures to prevent the possible spread of contamination during the handling of a contaminated injured patient.			
L.4.	Ambulance personnel did not demonstrate procedures to prevent the possible spread of contamination during the transport of the injured victim.			

UTILITY: Quad Cities Nuclear Power Station

Illinois (State)

III. Summary Listing of Deficiencies

August 28-29, 1984 (Date)

A. Deficiencies Affecting Public Health and Safety

Whiteside County (Community)

NUREG Item	Narrative Statement of Deficiency	Corrective Action Proposed	Scheduled Date	Actual Date
	None			

UTILITY: Quad Cities Nuclear Power Station

Illinois (State)

III. Summary Listing of Deficiencies

B. Other Deficiencies

August 28-29, 1984 (Date)

Whiteside County (Community)

NUREG Item	Narrative Statement of Deficiency	Corrective Action Proposed	Scheduled Date	Actual Date
E.5.	The standard message caused a deficiency during the exercise due to the fact that Albany was in an area to be sheltered rather than evacuated.			

IV. ATTACHMENTS

Illinois Emergency Services and Disaster Agency
110 East Adams Street, Springfield, Illinois 62706

October 1, 1984

Mr. Gordon Wenger
Federal Emergency Management Agency
Region V
Federal Center
Battle Creek, MI 49016

Dear Mr. Wenger,

Enclosed are the siren reports that bracket the Quad Cities exercise for 1984.

Sincerely,

David L. Wise

OCT 84 2:44

Two (2) enclosures
DLW/jp

11 OCT 1984

COUNTY
OF
ROCK ISLAND

EMERGENCY SERVICES
AND
DISASTER AGENCY

WARREN C HALLGREN Coordinator
6120 - 78TH AVENUE
MILAN, ILLINOIS 61264
TEL. AC 309 [illegible]

August 13, 1984

Mr. David Wise
Illinois Emergency Services and
Disaster Agency
6120 78th Ave
Milan, Ill 61264

Dear Mr. Wise:

On August 7, 1984, Rock Island County tested their sirens, all but one went off, siren #15, which is located on a bluff between 94th avenue and Babris Cliff Road.

I contacted Mr. Frank Rehce on August 7th, he said he will have the engineers check into it, and will contact me later to let me know what the problem was.

Sincerely,

Warren C. Hallgren, Coord.
Rock Island County E.S.D.A.

WHITESIDE COUNTY

Emergency Services
And Disaster Agency
Morrison, Illinois 61270

E. Stuart Richter
Coordinator

Courthouse Building
Phone 815-772-2811

September 5, 1984

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

Dear Mr. Jones,

As a part of the annual exercise of I.P.R.A. Vol. IV, Whiteside County tested the siren warning system in and around the Albany, Illinois area. Each siren was individually monitored and each sounded when tested on September 4, 1984.

This test then completes the Whiteside County response to the I.P.R.A. Exercise for the Quad Cities Nuclear Station for 1984.

Sincerely,

E. Stuart Richter

E. Stuart Richter
E.S.D.A. Coordinator

jaa
cc: David Wise
Paul Sereg

Quad Cities Station PNS Test
September 4, 1984

Siren	Location		Observer	Phone	Sounded yes-no
CE-6	Waller Rd., just S. of Hazel Rd.	GP. Rd. Comm.	Stu Richter		Yes
CE-5	Waller Rd., just N. of Palmer Rd.	GP. Twp. Sup.	Roland Vander Eide	309-887-4895	Yes
A-1B	In Albany	Vil. Pres.	Cal Thompson	309-887-4817	Yes
CE-1	Meredosia Rd. ½mi. S. of Bunk. Hill	Sheriff's Off.			Yes
CE-2	Meredosia Rd. ½mi. N. of Thome Rd.	Sheriff's Off.			Yes
CE-3	Meredosia Rd. ¼mi. N. of Gaulrapp	Highway			Yes
CE-4	Stropes Rd. ½mi. W. of Meredosia	Highway			Yes

UNITED STATES
NUCLEAR REGULATORY COMMISSION
REGION I
631 PARK AVENUE
KING OF PRUSSIA, PENNSYLVANIA 19406

DEC 10 1984

Docket No. 50-334

Duquesne Light Company
ATTN: Mr. J. J. Carey
Vice President
Nuclear Group
Post Office Box 4
Shippingport, PA 15077

Gentlemen:

On November 9, 1984, I transmitted to you a copy of the Federal Emergency Management Agency (FEMA) exercise report for the June 27, 1984, exercise of the offsite radiological emergency preparedness plans for the Beaver Valley Nuclear Power Station. The outstanding Category "A" deficiencies identified in the report pertain to timeliness of activation of the public alert and notification system, and Hancock County, West Virginia's capability for performing detailed actions necessary to implement protective actions.

We have discussed with you via telephone, and also in a meeting held in the Region I office on November 20, 1984, progress in resolving these deficiencies. It is our understanding that for Hancock County, detailed work schedules were developed and submitted for FEMA Region III review, training has been provided, and your staff believes that the County is now capable of demonstrating their ability to implement required protective action. FEMA III has scheduled a tabletop exercise for December 13, 1984, to verify the adequacy of corrective action for this issue.

With respect to the public alert and notification system, it is our understanding that Duquesne Light Company is working with the three states and the affected counties in your 10 mile Emergency Planning Zone to revise procedures. Once revised, these procedures will clearly assign responsibilities and authorities to enable timely activation of the alert and notification system (within 15 minutes of notification of the emergency, where the course of events requires some immediate action to protect the public).

If your understanding of the planned or taken corrective actions are not in agreement with that stated above, please inform us within 10 days of the date you receive this letter. If you have any questions concerning this matter, please contact Mr. R. Bellamy, (215) 337-5200, of my staff.

Sincerely,

Thomas T. Martin, Director
Division of Engineering and
Technical Programs

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