



Federal Emergency Management Agency

Washington, D.C. 20472

26 MAY 1982

MEMORANDUM FOR: Brian Grimes
Director
Division of Emergency Preparedness
U.S. Nuclear Regulatory Commission

FROM:

Richard W. Kimm
Richard W. Kimm
Assistant Associate Director
Office of Natural and Technological Hazards

SUBJECT: Evaluation of the December 4, 1980, LaSalle Nuclear Power
Station Exercise

Attached is a copy of the exercise report by the Federal Emergency Management Agency (FEMA), Region V, on the LaSalle Nuclear Power Station joint exercise conducted December 4, 1980. FEMA Region V personnel have discussed the deficiencies noted in the Illinois State Plan and in the joint exercise with the Illinois Emergency Services and Disaster Agency's Director. He has assured Region V that those areas needing improvement or determined to be deficient have been acted upon and corrected.

The December 4, 1980 post-exercise assessment by Region V indicates that LaSalle County demonstrated an acceptable capability to protect the health and safety of the public. The role of the State of Illinois in this exercise was primarily to support the local and utility exercise by participating in all interface activities. The State of Illinois successfully demonstrated its capabilities to protect the public five weeks before the LaSalle exercise during the Dresden exercise and therefore was not required to fully exercise. Grundy County performed poorly in the December 4, 1980 LaSalle exercise and did not demonstrate an ability to protect the health and safety of the public in the event of a nuclear disaster. However, in a subsequent exercise at the Dresden facility on September 30, 1981, Grundy County demonstrated a vastly improved capability to protect the health and safety of the public.

At this time, the State of Illinois and Grundy and LaSalle Counties are capable of ensuring the protection of the public in the event of a nuclear accident at the LaSalle facility.

Contact Vernon E. Adler, Chief, Technological Hazards Division, at 287-0200, for additional information.

Attachments:

Post-Exercise Evaluation

POST-EXERCISE EVALUATION

STATE OF ILLINOIS AND GRUNDY AND LASALLE COUNTIES
EXERCISE OF THE ILLINOIS PLAN FOR RADIOLOGICAL ACCIDENTS
FOR
LASALLE NUCLEAR POWER PLANT, OTTAWA, ILLINOIS

December 4, 1980

PREPARED BY:
FEDERAL EMERGENCY MANAGEMENT AGENCY
PLANS AND PREPAREDNESS DIVISION, REGION V
FEDERAL CENTER
BATTLE CREEK, MICHIGAN 49016

~~1241260593~~

Region V

Letters to MN & WI dated 1/29/81
OH 1/30/81
MI 1/30/81
IL ✓ 2/3/81
IN 2/3/81

ALL-STATE LETTER

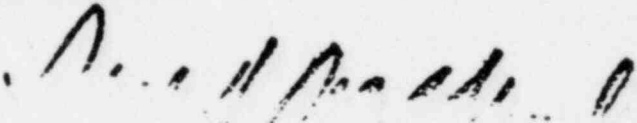
TO STATE EMERGENCY SERVICES DIRECTORS: Illinois,
Michigan, Minnesota, Ohio, and Wisconsin

SUBJECT: Post-Exercise Evaluation

Attached please find the long-awaited written critiques of the exercise(s) held in your State.

The Regional Advisory Committee hammered out the format and substance of this approach. Further adjustments relative to future exercises, in terms of format, may be anticipated. Shortly, you will be receiving Guidance Memorandum #17 which indicates some new procedures which are generally consonant with the approach taken by the Region V Regional Advisory Committee.

In the meantime, we anticipate that you will be working closely with your FEMA Field Officer in resolving deficiencies and in finalizing your formal request for a review and finding of the status of your plans by our National office.


Patrick H. McCollough
Chairman
Regional Advisory Committee

Attachment

Info cy to:
State Director-Indiana

cc: Div. Directors: DR&R/I&M/T&E/OS/AD
EMS (6)

PHMcCollough/pr/x6001/1-20-81/Ref:REP-LIA

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I. INTRODUCTION

On December 7, 1979, the President directed the Federal Emergency Management Agency (FEMA) to assume lead responsibility for all off-site nuclear planning and response.

1. FEMA's immediate basic responsibilities in Fixed Nuclear Facility - Radiological Emergency Planning include:

- a. Taking the lead in off-site emergency planning and review and evaluation of State and local government emergency plans for adequacy.
- b. Determining whether the plans can be implemented, based upon observation and evaluation of exercises conducted in these jurisdictions.
- c. Coordinating the activities of all of the involved Federal and volunteer agencies:

- (1) Federal Emergency Management Agency (FEMA)
- (2) Nuclear Regulatory Commission (NRC)
- (3) Environmental Protection Agency (EPA)
- (4) Department of Energy (DOE)
- (5) Department of Health and Human Services (HHS)
- (6) Federal Highway Administration (FHWA)
- (7) Department of Agriculture (USDA)

Representatives of these agencies serve as members of the Regional Advisory Committee (RAC) which is chaired by FEMA.

Formal submission of emergency plans to the RAC by the States and involved local jurisdictions is, in each case, followed closely by the exercising, critiquing, and evaluation of those plans. A followup Public Meeting is held to acquaint the citizenry with contents of the plans, answer questions about them and receive suggestions on the plans.

2. A radiological emergency exercise was conducted December 4, 1980, between the hours of 8:30 a.m. and 5:00 p.m. by the State of Illinois to assess the adequacy of the Illinois Plan for Radiological Accidents (IPRA) and preparations to protect the public in the event of a radiological emergency involving the LaSalle Nuclear Power Plant, operated by the Commonwealth Edison Company near Ottawa, Illinois. Parts of Grundy and LaSalle Counties are within the 10-mile Emergency Planning Zone (EPZ) affecting about 16,600 residents.

3. A Critique of the December 4 exercise was held at 10:00 a.m., December 5, 1980, at the Ramada Inn, Ottawa, Illinois.
4. A public meeting was conducted at 2:00 p.m., December 5, 1980, at the Ramada Inn, Ottawa, Illinois.
5. General RAC objectives for the operational phase of the plans were to exercise and evaluate the following elements as described in the All-State Letter to State Emergency Services Directors in Region V, August 28, 1980:

Communications and Warning
Accident Assessment
Capability of Field Assessment Teams
Use of Protective Action Guides (PAGs)
Public Information
Evacuation Methodology that would be used
Provisions for Re-entry and Recovery of the Affected Area
Direction and Control

Comments on those general areas follow. The basic planning document on which the State and local plans were developed was NUREG 0654-FEMA REP-1.

6. Participating organizations were:
 - a. Illinois Emergency Services and Disaster Agency (ESDA), at the State EOC in Springfield, and the ESDA mobile Command Post located at Grand Ridge.
 - b. Illinois Department of Nuclear Safety (IDNS) at Springfield, and at its mobile lab located at Streator.
 - c. Local Governments: Grundy County (at its EOC in Morris), LaSalle County (at its EOC in Ottawa), and towns of Grand Ridge, Marseilles, and Seneca, at their EOCs.
 - d. The Commonwealth Edison Company, at its Headquarters in Chicago, at the LaSalle nuclear power plant, and at the licensee's EOF near the LaSalle plant.

7. Federal Observers were:

<u>OBSERVER</u>	<u>AGENCY</u>	<u>SITE</u>	<u>FUNCTION(S)</u>
1. P. McCollough ^{1/}	FEMA Reg. V	Various	Overview
2. G. Wenger	FEMA Reg. V	Various	Overview
3. R. Lee	FEMA Reg. V	State ESDA EOC	Public Information
4. F. Egland	FEMA Reg. V	State ESDA EOC	Transportation, Evacuation, Re-Entry
5. W. Grant	NRC	State ESDA EOC	Accident Assessment
6. R. Liebel	FEMA (CPR) ^{2/}	State ESDA EOC	Direction & Control, Communications
7. G. Rapp	FEMA Reg. V	LaSalle Cty EOC	Public Information, Warning
8. J. Kirschensteiner	DOT	LaSalle Cty EOC	Transportation
9. J. Pagliaro	NRC	LaSalle Cty EOC	Accident Assessment, PAGs
10. S. Rifkind	FEMA Reg. V	LaSalle Cty EOC	All Functions
11. G. Barber	FEMA (CPR)	LaSalle Cty EOC	Direction & Control, Communications
12. S. Swanson	FEMA Region V	Grundy Cty EOC	All Functions
13. F. Kishton	FEMA Region V	Grundy Cty EOC	All Functions
14. D. King	FEMA Region V	DNS Mobile Lab	Accident Assessment
15. P. Tedeschi	EPA	DNS Mobile Lab	PAGs
16. P. Frost	FEMA Reg. V	State ESDA CP	Communications
17. J. Devlin	FEMA (CPR)	State ESDA CP	Direction & Control
18. D. Smaston	FEMA Reg. V	Utility EOF	Communications
19. H. King	FEMA Reg. V	Utility EOF	Public Information
20. J. Henrici	FEMA Reg. V	Utility EOF	All Functions
21. D. Harris	FEMA Reg. V	Marseilles EOC	All Functions
22. R. Sherman	FEMA Reg. V	Marseilles EOC	All Functions
23. W. Curtis	FEMA Reg. V	Seneca ^{3/}	All Functions
24. R. Schwartz	FEMA Reg. V	Seneca EOC	All Functions
25. S. Delach	FEMA (CPR)	Grand Ridge EOC	All Functions
26. J. Eldridge	FEMA Reg. IX	Various	Visitor - Overview
27. S. Warren	FEMA Reg. I	Various	Visitor - Overview
28. R. Zakaris	FEMA Reg. I	Various	Visitor - Overview
29. B. Bailey	FEMA Reg. V		(Secretarial support to RAC)

^{1/} RAC Chairman

^{2/} Center for Planning and Research (Under contract to FEMA)

^{3/} Also observed Evacuation Center at Pontiac

8. Major functions witnessed by Federal observers were evaluated in accordance with the following criteria:

Capability outstanding; excellent demonstration.

Capability good; exceeds minimum standards - some improvements recommended.

Capability acceptable; meets minimum standards - significant improvement needed.

Capability weak; does not meet minimum standards - significant improvements needed.

Capability not demonstrated or lacking.

9. State and local jurisdictions are required to take remedial actions responsive, on a point-by-point basis, to the formal recommendations of the RAC. One month from receipt of this document State and local jurisdictions should submit to the RAC the corrective measures they have taken or intend to take. If remedial actions cannot be instituted immediately, then a detailed plan scheduling and implementing remedial actions must be provided.

Recommendations for correcting deficiencies are listed in continuing numerical sequence following the critique of each observed function.

Herein is an example of the format to be used when indicating remedial actions.

CRITIQUE: "The exercise was terminated without proper reduction from the 'General Emergency' classification."

Sample: RECOMMENDATION #1 - Remedial Action:

Exercise Controllers have been directed to terminate future exercises after the nuclear plant is released from "GENERAL EMERGENCY" status and appropriate re-entry and recovery actions are taken according to State and local plans and procedures.

10. The Regional Director of FEMA is responsible for certifying to the FEMA Associate Director, Radiological Emergency Planning, Washington, D.C., that any deficiencies noted in the exercise have been corrected and such corrections incorporated in the plan.

A State which seeks review and approval by FEMA of its plan, with annexes, shall submit an application for review and approval to the FEMA Regional Director of the Region in which the State is located. The application, in the form of a letter from the Governor, or other State official as the Governor may designate, shall contain one copy of the completed State plan with an indication that deficiencies have been corrected.

Upon receipt of a State plan from the Regional Director, the Associate Director shall cause copies of the plan together with the Regional Director's evaluation, to be distributed to the members of the Federal Interagency Central Coordinating Committee (FICCC) and other FEMA offices with appropriate guidance relative to their assistance in the FEMA review process as described in 44 CFR Part 350, Federal Register, Volume 45, Number 123, Tuesday, June 24, 1980 (Review and Approval of State and local Radiological Emergency Plans and Preparedness). The Associate Director shall conduct such review of the State plan as deemed necessary prior to its being forwarded to the appropriate NRC licensing bodies.

II. EXECUTIVE SUMMARY

The consensus of the 25-member Federal Observer Team indicated that the objective of the exercise, which was to assess the adequacy of the Illinois Plan for Radiological Accidents (IPRA) as it applies to State and local nuclear emergency response capability for the LaSalle Nuclear Power Plant, was achieved.

The exercise focused on the utility and the local off-site response since the State had successfully demonstrated its capabilities during the Dresden exercise five weeks earlier. Thus, the State's primary role was to support the utility and local exercise by fully participating in all interface activities.

The exercise demonstrated an outstanding State capability to protect the public in event of a nuclear accident.

LaSalle County and its local jurisdictions were participating in such an exercise for the first time and demonstrated an acceptable capability to protect the public. Some deficiencies were noted, but most were relatively minor and none prevented an acceptable performance though some improvements are recommended.

Grundy County had an opportunity to demonstrate an improved capability based on the recent Dresden exercise. However, Grundy County failed to demonstrate improvements apparently because of an attitude that participation in three exercises during a period of six months required too much time and effort.

Positive observations included:

- a. Improvement of the previously demonstrated high quality operations at the State EOC.
- b. Evidence of good teamwork at the LaSalle Plant's EOF, particularly in the public information function.
- c. Dedication by most of the local participants, and the support by their elected officials. This was particularly noteworthy at Grand Ridge, and generally occurred at the other participating jurisdictions within LaSalle County, at the LaSalle County EOC, and at the evacuation center at Pontiac.
- d. The actual evacuation of a nursing home at Marseilles.

Areas of deficiencies noted by observers included:

- a. An inadequate exchange of information among the State and County EOCs, and between County EOCs and local municipalities. This was particularly evident concerning radiological data.

- b. Lack of familiarity by some local officials and staff of their roles and responsibilities, including no evident checklist or procedures present. This indicates the need for more experience and training.
- c. Inappropriate release of exercise scenario information to some participants.
- d. The need for improvement of displays at most local EOC's and a demonstration of ability to display status of events satisfactorily.
- e. Failure to conduct shift change at county and local (except at Grand Ridge).

A simulated change was accomplished.

III. EXERCISE SCENARIO

SYNOPSIS AND CRITIQUE:

The exercise scenario was developed by Illinois Emergency Services and Disaster Agency and the Illinois Department of Nuclear Safety to provide an outline of a possible course of events leading to and including a nuclear emergency at the LaSalle Nuclear Power Station (LNPS), simulated on December 4, 1980.

There was a simulated occurrence of a plant transient at 8:30 a.m. when the reactor scrammed, with no indication of fuel cladding failure. A Site Emergency condition was declared, and notification procedures followed. At 10:00 a.m., the station was placed in a "GENERAL EMERGENCY" classification due to primary containment activity exceeding 3.8×10^5 r/hr and an imminent release being anticipated. At 12:00 p.m. monitors indicated that a radioactive release to the atmosphere had begun as a result of several failed primary containment vent and purge valves. The release was passing through the Standby Gas Treatment System (SBGTS). The release rates indicated were noble gases 9.7×10^3 Ci/sec, and Iodine 2.1×10^{-1} Ci/sec. By 2:00 p.m. the primary containment vent and purge valves were repaired and the radioactive gas release was terminated, thus the duration of the release was about two hours. AT 3:45 p.m. the reactor was in a cold shutdown status.

A recapitulation of the scenario events, leading to State and local response, is shown in the table below.

<u>EVENT OR CONDITION</u>	<u>TIME OF EVENT</u>
Normal conditions at LNPS	Prior to 8:30
Reactor scrammed, resulting in Site Emergency condition at LNPS (Wind speed 4 mph from the west - 270°)	8:30
General Emergency condition initiated at LNPS (with imminent release predicted)	1000
Release occurs at LNPS (Wind conditions same as above)	1200
End of release	1400
Wind speed increased to 15 mph from the west - 270°	1430
Cold shutdown status at LNPS	1545
Re-entry procedures are initiated	1600
End of exercise	1700

All times shown were real times for the exercise date of December 4, 1980.

The exercise scenario dragged during the final four to five hours, largely because the scheduled simulated protective actions were carried out mostly before the simulated release occurred (although in accordance with the scenario and the IPRA). However, State exercise controllers interjected additional free play problems (some not specifically related to radiological accidents) which kept the exercise moving at most locations.

RECOMMENDATIONS:

1. Since mobilization of State personnel and equipment to the accident scene has been demonstrated, future scenarios might be shortened to reduce the time demands on the participants. Based on this scenario, one method could be to initiate the simulated release shortly after the "GENERAL EMERGENCY" declaration rather than two hours later. However, care must be taken to avoid shorter scenarios that would result in inadequate demonstrations and preclude a demonstration of a shift change. (Reference: NUREG 0654 N.1 and N.2).

IV. EVALUATIONS

A. ASSIGNMENT OF RESPONSIBILITY (ORGANIZATION CONTROL)

STATE:

The exercise clearly demonstrated to Regional Advisory Committee (RAC) observers that the primary responsibilities for State emergency response had been assigned and that supporting organizations at each level were aware of their responsibilities.

Improvements were noted in organization control at the State ESDA EOC since the Dresden Exercise.

The State Plan (IPRA) assigns to the State ESDA Command Post (CP) the responsibility for coordinating the response of State agencies operating near the scene in event of a nuclear power plant emergency affecting adjacent communities. Whereas there was token operational activity, the exercise at the CP was primarily a communications test demonstrating competent handling by operating personnel. Key responsible State officials did not visit this installation and there was not much exercise play of operational coordination.

The demonstration by the State to conduct continuous (24-hour) operations for a protracted period was acceptable. In lieu of a shift change, a list of persons who were designated to relieve the initial shift was provided the observers.

The lack of information from the State ESDA to the local EOC's (as noted during the Dresden exercise) continues, particularly concerning radiological conditions. The exception is the major status and emergency class changes transmitted over NARS.

The staff at the State ESDA CP functioned well during the limited simulation. Nevertheless, there is need for a Standard Operating Procedure (SOP) to tie the entire operation together, including coordination of the several State agency elements present (IDOT, State Police, etc.). There is also the need for radiological information at this site for the coordination of operations to have relevance to the emergency situation.

RECOMMENDATIONS:

2. While it may not be appropriate to repeatedly exercise proved State-level competence (especially at Springfield), it is necessary to fully support local response exercises in the field. At the same time, to shorten the exercise scenario, the State and personnel vans could be prepositioned near the scene. Therefore, consideration should be given in future exercises to including more State ESDA CP agency and Staging Area activity in order to derive maximum training benefits from such exercises, and fully support local exercise activities. (Ref: NUREG 0654 H.4, N.2, N.3).

3. An actual shift change should be demonstrated with each initial participant being relieved during the exercise as if a full shift period had been completed. (Ref: NUREG 0654 A.1 and A.4).
4. There must be a two-way street of information between EOCs for overall effective direction and control to take place. The State ESDA should provide more information, not just direction to the local EOCs. (Reference NUREG 0654 A.2, F.1, H.3).
5. An SOP should be developed concerning the functioning of the State ESDA CP for coordinating State agency activity in accordance with the existing plans (IPRA) and implementing document. A radiological SOP should be included covering guidance on staff radiological procedures and field operations in affected areas (exposure control, etc.). (Reference: NUREG 0654 A.3, H.#, P.1, P.4).

LASALLE/GRUNDY COUNTIES:

This was the first exercise for LaSalle County and it showed that more experience is needed. Staffing at the LaSalle EOC, which included top county officials, was generally appropriate. Most of the staff appeared serious and dedicated and demonstrated an acceptable capability to protect the public. Decision-making involving staff at LaSalle County may have been performed, but was not apparent from the discussions seen. Staff briefings primarily consisted of announcements which were then posted. There was little interface or discussion with the staff, and there were no overall briefings as to the situations, what was being done, or by whom. There was poor followup to messages and actions and no initiative in followup. Part of the overall problem may have been delays in logging of messages and the poor display of the status of events. Also, while it is appropriate that the local ESDA Director receive guidance and assistance from the State Area ESDA Director, it appeared that the State Exercise Controller and Area ESDA Director were generally running the exercise. No checklists or SOPs were seen or consulted. It seemed that there were few specific functions for LaSalle County, consequently there was little to observe except message processing. It was not apparent that all members of the assembled emergency staff really knew their assigned functions and responsibilities.

Internal message handling, logging, and posting in the LaSalle County EOC was an ad hoc process apparently developed during the exercise. This appeared to increase the time necessary for messages to be acted upon. It took too long to record the NARS messages (generally in excess of 20 minutes) before following external notifications and internal processing of the information within the EOC occurred. While the Civil Air Patrol (CAP) volunteers were dedicated to their task of logging and posting the messages, they were not trained and did not have adequate message logs for use. There was confusion as to the distinction between incoming, outgoing, and internal messages, and how they were to be handled and logged. The CAP volunteers were underutilized, primarily performing clerical functions which would not normally be their CAP function in an actual emergency. (Use of CAP aircraft was not programmed for this exercise).

Ability to conduct continuous 24-hour operations was demonstrated by deferring an actual shift change until after the termination of the exercise according to the scenario. Thus, in lieu of a shift change, each organization provided a list of persons designated to relieve the initial staff that was mobilized for the exercise. However, a full shift change actually took place at Grand Ridge since they apparently did not get the word on simulating a shift change.

The status board was used to post all messages without a priority system as to significance. For example, confirmation of messages was posted in the message log and on the status board instead of only being noted on the communicator's logs.

Minimum staff participation with minimal attention to details and no briefings were observed in Grundy County. This may have been a reaction by County officials from having three exercises within six months, as well as perceived minimal involvement in the play of the exercise, although the direction of the simulated release was into Grundy County. The Dresden exercise five weeks earlier revealed several deficiencies in Grundy County, some of which were observed to have been reduced, but many still remain.

There was better coordination observed among departments. As before, the plans were available, but not consulted, and no checklists were evident. The minimum activity called for in the exercise scenario apparently did not stress the staff to demonstrate improvement in their knowledge of what their roles require.

All local EOCs provided adequate security except at the Grundy County EOC. In the LaSalle County EOC, the security was not enforced enough as no identification was required for registration, and no accounting for signing in or out movement was subsequently required. Entry to the EOC area through the Detective Captain's office (which was unlocked) was not controlled, thus access was open to anyone familiar with the floor plan of the facility.

Essential operations were directed and controlled at the municipal EOCs with the operation at Grand Ridge exceeding minimum standards.

Calls for busses were made from Marseilles, Seneca and Grand Ridge directly to the bus company, which normally handles bus transportation for the schools, rather than to the Grand Ridge EOC where the bus company president was stationed, contrary to chain of command procedures.

The utility was not represented at principal governmental EOC's, nor were the counties represented at the utility's interim EOC. Thus, except for information on event classes transmitted over NARS, the counties knew little of the radiological situation. NUREG 0654 C.2, addresses the desirability for providing local representatives at the near site EOF who can provide direct information to their parent organizations, and for sending a utility representative to each principal off-site governmental EOC.

RECOMMENDATIONS:

6. Additional training should be provided through exercises, following development of internal EOC procedures for LaSalle County. (Reference: NUREG 0654 A.1, A.2, H.4, N.1, P.1, P.4).
7. LaSalle County should provide staffing as if an actual emergency had occurred, specifically provide other sources for clerical support, and have CAP conduct (or simulate) their actual emergency function in future exercises. (Reference: NUREG 0654 A.1, A.4 and H.4).
8. LaSalle County should develop internal message handling procedures, as well as the necessary forms, status boards, and specific instructions for the staff. They should conduct drills on message handling procedures. A means should be developed for speeding up the handling of NARS messages, possibly by streamlining the form. (Reference: NUREG 0654 F.1, F.3, H.3, N.3).
9. See Recommendation #3.
10. Security enforcement should be tightened and all access areas to the LaSalle County EOC should be controlled or locked. (Reference: NUREG 0654 H.3).
11. Each jurisdiction should participate in every exercise to the fullest extent possible. An exception may be allowed if it is determined that a minimum demonstration of the response role will be acceptable due to a previous fully acceptable demonstration in a recent exercise. (Reference: NUREG 0654, N.1, N.3, N.5).
12. Assure that procedures for requesting bus transportation are clarified in local plans so that calls will be made to the proper location. Since the bus company apparently handles transportation for LaSalle County schools, it may be more effective to have the bus company representative stationed at the County EOC at Ottawa, thus part of the LaSalle plan should be reviewed. (Reference: NUREG A.2, J.10, P.4).
13. The IPRA should provide for each County to have a representative at the utility's near-site EOF who can be in direct telephone contact with the County on the status of events. The utility should provide a representative at the State and each County to provide technical information for decision making and also for public information briefings for the news media. (Reference: NUREG 0654 C.2, H.2, H.3).

B. ONSITE EMERGENCY ORGANIZATION

Section B, NUREG 0654 FEMA - REP 1, pertains only to licensee responsibilities for emergency response and is not included in the exercise evaluation of State and local plans.

C. EMERGENCY RESPONSE SUPPORT AND RESOURCES

STATE

The State adequately demonstrated the capability for contacting and requesting the use of available Federal resources under the Department of Energy's Radiological Assistance Plan and the Interagency Radiological Assistance Plan. (These documents are currently under revision and will be issued as the Federal Radiological Monitoring and Assessment Plan.)

It should be noted that a primary objective of the exercise is not to exercise the Federal response program but is intended to assure that the interface exists among State and Federal agencies for activating available resources.

RECOMMENDATIONS

None

D. EMERGENCY CLASSIFICATION SYSTEM

STATE-LOCAL

Knowledge of the standard emergency classifications and action level scheme as described in the utility, State and local response plans was adequately demonstrated during the exercise. The State and local implementation of this section of their plan is acceptable.

RECOMMENDATIONS

None

E. NOTIFICATION METHODS AND PROCEDURES

STATE-LA SALLE COUNTY:

The State and local activities demonstrated an acceptable capability of involved organizations (licensee, State and local jurisdictions) to implement the initial notification procedures required by their plans.

Simulated notification of the public was carried out by means of emergency vehicles actually traveling the necessary routes in the La Salle County jurisdictions. It was felt by observers that 20 minutes time for notification of the public in Seneca was too long.

Exercise security was deficient at some locations as most of the La Salle County officials and staff were at nearsite locations although not in the immediate EOC area before initial notification of a "Site Emergency." Therefore, notification, alerting and mobilization of officials and staff was not fully demonstrated.

RECOMMENDATION:

14. Mobilization of staff should be demonstrated which will indicate the time required for notification and reporting for duty and reveal any related problems. (Ref NUREG-0654 E.2).

F. EMERGENCY COMMUNICATIONS

STATE

The exercise demonstrated that acceptable provisions exist for prompt communications among principal response organizations to emergency personnel and to the public.

State-level communications systems between sites, and also the Utility Emergency Operations Facility (EOF) were observed to exceed minimum standards. Internal communications within the La Salle County EOC were weak and it took too long for delivery of messages from time of receipt at the Sheriff's Office to Operations and subsequent action within the EOC.

Minimal inter-county communication activities were observed, or were judged to be slow. Specifically, difficulty with inter-county radio communications was noted between the Grundy County EOC and the La Salle County EOC as Grundy County obtained no response during two attempts. Little or no feedback of information was forthcoming from the La Salle County EOC to Marseilles and Seneca (this could be an operational or procedural difficulty rather than a communications system problem).

RECOMMENDATION

15. Communications systems and procedures should be checked periodically, and fully utilized as appropriate to the scenario during exercises. Communications drills, i.e., communications with State and local governments within the 10-mile EPZ shall be tested monthly, including the aspect of understanding the content of messages. (Ref: NUREG-0654 F.1, F.2, F.3, N.1, N.2).

G. PUBLIC EDUCATION AND INFORMATION

STATE-LOCAL

Public information operations at the Utility's EOF which constituted the primary center for State and local public information activities, were carried out successfully and a good capability to provide the public with emergency information was demonstrated.

While the Public Information functions were well carried out at the interim EOF, there was little, if any, coordination between the State and local levels. With the current procedures, there is apparently no way for the State and local PIO's to know what each other were giving the media.

The State ESDA PIO performed very well with the media and demonstrated outstanding communication abilities. Good backup PIO support was demonstrated at the State EOC.

Little public information activity occurred at the local level except at LaSalle County EOC where one reporter was briefed in the morning and a statement was read by the Chairman of the County board to a simulated news media gathering during the afternoon.

RECOMMENDATION:

16. Consideration should be given to relieving individual local jurisdictions of the Public Information responsibility by establishing a joint media center at or near the near-site EOF staffed by representatives of the State, affected Counties and municipalities, the Utility, and by involved Federal agencies. Local PIO representatives could keep abreast of local developments by telephone and participate in briefings for the media, as appropriate. (Ref? NUREG 0654 G.3, G.4).

H. EMERGENCY FACILITIES AND EQUIPMENT

STATE-LOCAL EOC;s

The State demonstrated an outstanding capability to observers that adequate emergency facilities and equipment can be provided to support an emergency response to carry out response functions, and that each organization can provide for activating and staffing the EOC in a timely manner.

Significant improvements were observed to have been made since the Dresden exercise at the ESDA EOC.

The La Salle County EOC is housed in a relatively new building and generally has sufficient space and resources. However, it is an interim facility with tables, phones, displays arranged and set up specifically for the exercise. The arrangements would have to be re-established in the event of an actual emergency. The setting up of furniture and displays reportedly takes about 20 minutes, but the additional telephones were reported to have been placed several days earlier, thus there is a question as to how long it would actually take La Salle County to become fully operational in their EOC if an emergency occurred in the future. It is understood that space earmarked for a permanent EOC exists in the basement of the same building which may be utilized in the near future.

Deficiencies observed at the Grundy County EOC during the recent Dresden exercise still exist or were not shown to be rectified. The emergency power generator was not tested so the faulty venting of the exhaust may still exist. There was no facility security demonstrated, nor were improvements made to the facility. Display maps were improved although there was minimal display of information on the status board.

Local EOCs generally had minimal displays and all lacked or improperly used their status boards. Maps observed were of various scales, which usually did not provide sufficient detail on routes, location of such items and dairy farms, etc., and generally were too small to be clearly seen from the operational positions.

Municipal EOCs were considered at least minimally acceptable for the jurisdictional area and the nature of their operations. The Seneca EOC was in a trailer since their facility had burned six weeks earlier. The Marseilles EOC had inadequate emergency power and no fallout protection. The Grand Ridge EOC in the fire station needed minor improvements including provision of more telephone service and improvement of map displays to permit remarking as the changing situation warranted.

The interim Utility EOF served its purpose, although far from ideal in terms of a physical facility. A permanent EOF is needed which can meet the needs of the Utility, as well as facilitate coordination of the Utility-State-local response.

RECOMMENDATIONS

17. A standardized status board should be designed and provided to each of the local ESDA Directors for incorporation in each EOC. It should provide a means to retain a record of key events and/or problems, showing at a minimum (1) the time of the event,

(2) description statement, (3) where the responsibility is assigned (e.g., local department or agency), and (4) time when action is completed. Standardized types of maps and other displays should be developed and made a requirement, also covered with plastic for ease of change of condition. Finally, training should be provided for key operators and plotters on proper use of displays and status boards. (Ref: NUREG-0654 H.3, J.10 and O.1).

18. La Salle County should expedite establishment of their permanent EOC facility where operations for a possible radiological emergency could commence as soon as the staff is notified and reports to the EOC. (Ref: NUREG-0654 H.3 and H.4).
19. Grundy County needs to make improvements to its EOC which were recommended following the Dresden exercise (Ref: NUREG-0654 H.3).
20. Seneca needs to rebuild a permanent EOC with adequate space, emergency power, protective factors, etc. (Ref: NUREG-0654 H.3).
21. Marseilles needs to increase its emergency power capacity and improve protection factors. (Ref: NUREG-0654 H.3).
22. Grand Ridge needs to increase telephone service and improve map displays (primarily cover with plastic) and obtain newer maps (Ref: NUREG-0654 H.3).
23. The Utility should initiate steps to build a permanent EOF in accordance with guidelines in NUREG-0654 and NUREG-0695. In view of the close proximity of the three nuclear plants, Dresden, Braidwood and La Salle, consideration might be given to providing a single EOF to serve all three power plants (one at a time since it is extremely unlikely that more than one facility would have an emergency simultaneously.) The vicinity of Mazon on Illinois Route 47 about 8 miles south of Morris appears to be a feasible location for a combined EOF as it would be nearly equidistant (about 10 miles) from each plant. (Ref: NUREG-0654 H.1).

I. ACCIDENT ASSESSMENT

STATE

The State demonstrated a good capability for providing methods, equipment and expertise for rapid assessment of real or potential radiological hazards existing in the liquid or gaseous pathway. This included activation, notification, transportation, communications and monitoring equipment.

State-level functions, primarily by the Illinois Department of Nuclear Safety (DNS), were successfully carried out at Springfield and at the DNS Mobile lab in Streator.

Information concerning the developing radiological situation was not made available to the staff located in the three vans which constituted the State ESDA Command Post (CP). The State Police Captain-in-charge advised that whereas only 4 actions were simulated in this exercise in an actual emergency at least 100 State Police Vehicles would be operating in the affected area, dispatched from the mobile State Police Van at this CP. Similarly ESDA and DOT conducted emergency operations from their vans. It is elementary that these key officials be appraised of the developing radiological situation -- the failure to do so in this exercise detracted from an otherwise well-run operation at the CP.

There was almost no information on radiological conditions passed from DNS to local EOCs, thus local RDOs (where they exist) could not effectively apply and monitor exposure controls or response actions. Although this function is the responsibility of the State DNS, even where local capability may exist, some observers question the complete dependence on centralized expertise, as well as the lack of radiological information provided to the County EOCs. This requires the County to play an entirely passive role of blindly following advice from external sources. It has been observed elsewhere that where the County staff closely followed the radiological situation, they were able to avoid unnecessary actions that would have followed from garbled radiological information received.

RECOMMENDATIONS

24. Consideration should be given to including the State ESDA CP in the information flow chain to receive radiological information on a continuing basis (e.g., readings from key locations, predictions, wind information, etc.) Perhaps a trained IDNS official should be assigned to this key installation to give advice to officials there who are conducting operations and making important decisions affecting the health and safety of emergency workers, as well as the public (Ref: NUREG-0654 F.1, F.2, I.8, J.1 and J.10)

25. Procedures should be developed for DNS to provide essential information to each County EOC so that the County Radiological Defense Officers where they exist can follow and interpret the radiological situation and be in a position to advise local officials of likely or pending decisions and explanations for protective actions. (Ref: NUREG-0654 I.8 and J.10.)

J. PROTECTIVE RESPONSE

STATE-LOCAL

The State Emergency Plan includes a range of protective actions for the plume exposure pathway EPZ for emergency workers and the public and provides guidelines for choosing such actions during an emergency.

During the exercise the State demonstrated an acceptable capability to make appropriate decisions regarding protective actions during an emergency. However, significant improvements are recommended:

The timing for commencing the evacuation was viewed by several observers as premature in light of the simulated emergency conditions, although in accordance with the IPRA. IPRA apparently calls for a very conservative approach for taking protective actions and implementing exposure control measures.

At the evacuation reception center in Pontiac, an acceptable demonstration was provided but there was an indication of a lack of full response by appropriate agencies, some confusion of duties and procedures, and notification procedures. For instance, the Red Cross had to inform the County ESDA. More registrars, nurses, and monitors were needed. This apparently was the first experience at this location, and more training drills are needed.

Little was observed of functions directed by the La Salle County EOC except reported traffic control measures simulated by the County Highway Department in accordance with the locations planned and displayed on a map. There was considerable confusion about both rail and highway traffic control measures which were not clearly defined and not displayed in the EOC. There was little apparent coordination with the Illinois Department of Transportation, Bureau of Traffic, which has the primary responsibility for deciding on closing of highways, assigning of detours, etc. This overall function was weak at the LaSalle County EOC.

RECOMMENDATIONS

26. The timing of protective actions is not considered as a deficiency per se, but does raise questions suggesting that the conservative approach in the IPRA should be reviewed. (Ref: NUREG-0654 J.9, J.10, K.4).
27. The functions of traffic control, highway and rail closings, and the State-County roles need to be clarified. All such closings should be clearly delineated and displayed in the affected County and local EOCs. (Ref: NUREG-0654 J.10 and K.3).

K. RADIOLOGICAL EXPOSURE CONTROL

The exercise demonstrated to observers that the capability to control radiological exposure for emergency workers was the means for accomplishing this objective do exist.

Exposure guidelines consistent with EPA Emergency Worker and Life-saving Activity Protective Action Guides were available,

There was a 24-hour-a-day capability to determine the doses received by emergency personnel involved in a nuclear accident.

RECOMMENDATIONS

None.

L. MEDICAL AND PUBLIC HEALTH SUPPORT

The exercise demonstrated the capability of the State and local jurisdictions to cope with contaminated and injured individuals and provide them with medical services.

The State and local levels of emergency government took the necessary steps to insure adequate planning for medical problems which may occur.

It was evident that transportation of injured persons to hospital facilities had been arranged for and that the capability existed on a stand-by basis during the exercise.

A listing of emergency facilities capable of providing containment treatment for patients was not observed nor was its use demonstrated. However, demonstration of evacuation of a nursing home to a pre-set relocation point was considered outstanding.

RECOMMENDATIONS

None.

M. RE-ENTRY AND RECOVERY

The State and local emergency response plans contain instructions for re-entry, recovery and post-accident operations, which were demonstrated previously during the October 28, 1980 Dresden exercise.

RECOMMENDATIONS

None

N. EXERCISES AND DRILLS

RECOMMENDATIONS

28. Future exercises should test the integrated capability and a major portion of the basic elements existing within emergency preparedness plans and organizations.
(Ref: NUREG 0654 - N.1.2)
29. Future exercises should include mobilization of State and local personnel and resources adequate to verify the capability to respond to an accident scenario requiring response.
(Ref: NUREG 0654 - N.1.b)

O. RADIOLOGICAL EMERGENCY RESPONSE TRAINING

LOCAL

There was a noticeable lack of training in familiarity with radiological matters at the local level for officials and in specific radiological skills of emergency services personnel.

RECOMMENDATIONS

30. Appropriate familiarization and skills training in radiological matters should be provided to local officials and emergency services (police, fire, rescue, highway, etc.) personnel in all localities within the plume EPZ. (Ref: NUREG-0654 0.1, 0.4, and 0.5)
31. Additional training of Pontiac reception center personnel should be provided which stress full participation and duties of the personnel (Ref: NUREG-0654, J.10, J.12, N.3).



Federal Emergency Management Agency

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

MAY 11 1982

MEMORANDUM FOR: Assistant Associate Director, Office of Natural
and Technological Hazards

FROM: Chairman, Regional Advisory Committee, Region V

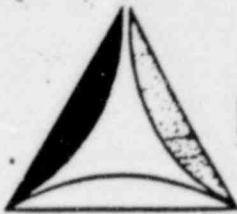
SUBJECT: Illinois REP Reports and Findings

Attached is a copy of the response from Illinois Emergency Services and Disaster Agency pertaining to Region V's request for a time line of corrective actions for the LaSalle "Regional Director's Evaluation" and the "Quad Cities Post-Exercise Evaluation."

This letter should be made a part of the LaSalle 350 Submission and a separate copy of the letter placed in the file of the "Quad Cities Post-Exercise Evaluation."

for Dan Bement
Edwin W. Hakala

Attachment



Illinois Emergency Services and Disaster Agency

110 East Adams Street, Springfield, Illinois 62706

April 22, 1982

Mr. Ed Hakala, Chief
Technological Hazards Branch
and RAC Chairman
Federal Emergency Management Agency
Federal Center
Battle Creek, MI 49016

Cross-Filed

Dear Mr. Hakala:

In accordance with your request for the State of Illinois to provide definitive information relative to the corrective action procedures addressing the FEMA post exercise evaluation comments from the LaSalle and Quad Cities exercises, the following is provided:

- A. Corrective actions addressing the post exercise evaluation comments from the previous LaSalle exercise were demonstrated at the LaSalle Nuclear Power Station exercise held on April 14 and 15, 1982. In addition, those corrective actions requiring changes or updates in the site specific LaSalle plan were incorporated, prior to the exercise, and submitted to your office under letter dated April 1, 1982. These two corrective action procedures completely satisfy all of the recommendations noted in FEMA's post exercise evaluation of the initial LaSalle exercise. (Attached is a copy of our initial corrective action time-line letter dated January 27, 1982).
- B. The identical procedure for Quad Cities is currently underway. Corrective actions requiring operational changes will be demonstrated during the exercise, currently scheduled for August 24, 1982. Corrective actions requiring changes in the plan are currently being incorporated in the revised Quad Cities site specific plan and will be forwarded to you for review.

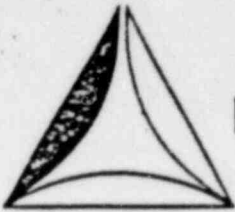
Due to the unusually large number of exercises required to be held in the State of Illinois, this procedure for incorporating corrective actions in both the plan update phase and the scheduled exercise period will be continued. I hope this satisfies your requirement, and should you have any questions, please do not hesitate to call me.

Sincerely,

E. E. Jones
E. E. Jones
Director

EEJ/cs

Attachment



Illinois Emergency Services and Disaster Agency

110 East Adams Street, Springfield, Illinois 62706

January 27, 1982

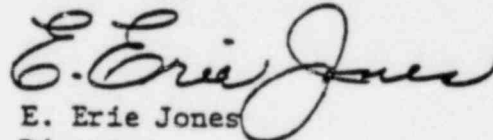
Federal Emergency Management Agency
Region V
300 South Wacker Drive
Chicago, IL 60606

Attention Mr. Frank Finch

Dear Mr. Finch:

Attached are the corrective actions and implementing procedures that address the LaSalle interim findings received on January 15, 1982.

Sincerely,

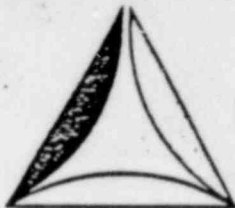


E. Erie Jones
Director

EEJ/cs

Attachment

cc: G. Wenger



Illinois Emergency Services and Disaster Agency

110 East Adams Street, Springfield, Illinois 62706

ESDA

Comments on Post Exercise Evaluation

LaSalle Exercise, January 27, 1982

<u>Section</u>	<u>Page</u>	<u>Comment</u>
II.A.a.	3	NUREG criterion F2 has been added to 0654 Rev. 1 from the interim comments originally published January, 1980. NUREC 0654, Rev. 1 was published November, 1980, subsequent to the publication of IPRA State Vol. I. Provisions have been made to modify the table in Chapter 2, page 11 of Vol. I to include reference to medical support facilities and inclusion of them, by name, in the site-specific SOPs for the Illinois Department of Public Health in Chapter 6, Vol. I.
b.	3	Provisions have been made and responsibilities assigned to modify and correct this discrepancy. This action will be noted by examination of the responsibility matrix, functional summary, correlation document, parallel action diagrams and State General Plan-Chapter 8.
II.B.a.	3	STATE: Shift change will be demonstrated.
	4	COUNTIES: Additional training for future exercises should demonstrate greater knowledge and more effective utilization of SOP's. A 2-day scenario has been formulated and should afford an opportunity to actually demonstrate a shift change. IDNS is reworking SOP's with an eye to increasing flow of radiological condition information to necessary points of contact.
II.B.e.	5	COUNTY: With installation of the siren warning system, meeting prompt notification guidelines will be enhanced.
f.	5	COUNTY: Ongoing communication drills have been instituted to uncover/eliminate potential problems as well as afford hands-on experience.
h.	6	COUNTY: Specific tasks have been assigned and are being carried out to upgrade and establish permanent EOC's.

<u>Section</u>	<u>Page</u>	<u>Comment</u>
1.	7	STATE: IDNS is reworking SOP's with an eye to increasing flow or radiological condition information to necessary points of contact.
j.	7	STATE: IDOT SOP's are being revised to improve coordination with county level operations. Maps/visual aids and their usage are continually being improved upon at state, county and local levels in response (NUREG 0654 N.). COUNTY: Representation by bus company official will be requested for attendance at county EOC.
1.	8	Correction initiated. IDPH is compiling required information for contaminated patient capacity of recognized fixed medical facilities, Vol. I, Chapter 5, pg. 73.
II.B.m.	9	STATE/ COUNTY: Current scenario activities have been defined to facilitate demonstration of recovery and re-entry operations.