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POST EXERCISE ASSESSMENT

EXERCISE OF THE NEW YORK STATE AND OSWEGO COUNTY RADIOLOGICAL EMERGENCY PLANS FOR NINE MILE POINT NUCLEAR POWER STATION

REGION II

SEPTEMBER 30, 1981



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MULEAR REGULATORY COMMISSION

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I. INTRODUCTION

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1. FEMA Responsibilities

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.

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

- Taking the lead in off-site emergency planning and review and evaluation of State and local government emergency plans for adequacy.
- Determining whether the plans can be implemented, based upon observation and evaluation of exercises conducted in these jurisdictions.
- Coordinating the activities of other involved Federal and volunteer agencies:
 - Nuclear Regulatory Commission (NRC)
 - Environmental Protection Agency (EPA)
 - Department of Energy (DOE)
 - Department of Health and Human Services (HHS)
 - Department of Transportation (DOT)
 - Department of Agriculture (USDA)

Representatives of these agencies serve as member 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 Public Meeting is held to acquaint the citizenry with contents of the plans, answer questions about them, and receive suggestions on the plans.

2. Exercise Event

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A radiological emergency exercise was conducted on September 15, 1981, between the hours of 7:30 A.M. and approximately 3:30 P.M. to assess the adequacy of New York and Oswego County Radiological Emergency Response Plans and State and local preparations to protect the public in the event of a radiological emergency involving the Nine Mile Point Station (NMPNS), operated by the Niagara Mohawk Power Corporation . (NMPC) near Oswego, New York.

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3. Exercise Objective

The exercise objective was to demonstrative both the on-site and off-site (affected State and local governments) response according to existing plans and emergency response capabilities that would be brought into play in the event of a radiological emergency at the NMPNS affecting off-site areas.

A synopsis of State and local support capabilities, as presented in the radiological emergency response plans, which were to be tested include:

- Adequacy and implementation of New York State radiological emergency response plans.
- Capability of New York State to notify and activate emergency response personnel.
- Operating of the Radiological Emergency Communications System (RECS) between the State, County, and NMRNS.
- Activation and operation of State emergency operating center, giving consideration to space, habitability, communications, and facility security.
- Coordination of Public Information between New York State, Oswego County, and NMPNS; and provision of coordinated
 media news releases.
- Ability of State to calculate dose projections and recommend appropriate protective actions.
- Implementation of access control procedures by State offsite emergency response personnel.
- Adequacy and implementation of Oswego County radiological emergency response plans.
- Capability of Oswego County to notify and activate appropriate emergency response personnel.
- Capacility of Oswego County to notify and activate affected segments of the public within the plume exposure pathway.
- Deployment of and communication with radiological monitoring teams.
- Adequacy of Oswego County EOC facilities.
- Ability of Oswego County personnel to calculate dose projections and to determine appropriate protective actions.

Methods for radiation exposure control, including distribution of dosimeters and keeping of individual worker exposure records.

4. Participating State and Local Organizations

Participating off-site State organizations included the New York State Department of Health, the New York State Office of Disaster Preparedness (at the State EOC in Albany and at the Central District Office in Oneida) together with other State agencies, Oswego County (at its EOC in Fulton), together with other local agencies and (fire and police departments) and volunteer organizations, such as the American Red Cross, the Civil Air Patrol, and RACES (Radio Amateur Civil Emergency Service). In addition, local social service agencies in Onondaga and Jefferson Counties, which provide capabilities for hosting evacuees, participated.

5. Exercise Critique

A critique of the September 15 exercise was conducted at 3:30 P.M., September 16, 1981, at the Naval Militia Building in Oswego, New York.

6. RAC Evaluation Objectives

General Regional Assistance Committee (RAC) objectives for the operational phase of the plans were to observe and evaluate the exercise focusing on the ten functional areas listed and briefly described below. Within these ten functional areas are approximately 75 specific criteria elements taken directly from Section II of NUREG-0654, FEMA REP-1, Rev 1, which is the basic planning document on which the State and local plans, as well as the criteria for observing and evaluating the exercise is based.

- Emergency Operations Facilities and Resources (including working space and amenities, internal communications and displays, security, point-to-point communications).
- Alerting and Mobilization of Officials and Staff (including timeliness, staffing, 24-hour capability for protracted operations).
- Emergency Operations Management (including organization, direction and control, leadership, support by dilicials, information flow between levels and organizations, decision making, use of checklists and procedures).
- Public Alerting and Notification (including timeliness, means of notification.

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- Public and Media Relations (including publications, press facilities, media briefings, news release coordination).
- Accident Assessment (including adequacy of monitoring staff and equipment, technical calculations, use of PAGs, issuance of timely recommendations).
- Actions to Protect the Public (including sheltering, evacuation, reception and care, transportation).
- Health, Medical and Exposure Control Measures (including access control, adequacy of equipment and supplies, dosimetry, use of KI, decontamination, medical treatment).
- Recovery and Reentry Operations.
- Relevance of the Exercise Experience (including benefit to participants, adequacy of the scenario).

7. Federal Observer Team

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LOCATION/FUNCTIONS 1/ ACENCY OBSERVER FEMA RAC Chairman Oswego Area Overview I. Husar Oswego Area Overview FEMA J. Picciano FEMA (Team Chief) State EOC (Albany) G. Seidenfeld State EOC FEMA (CPR) 2/ J. Devlia State EOC, Accident Assessment EPA J. Feldman State EOC B. Houston FEMA State EOC DOT P. Lutz FEMA (Team Chief) State District EOC (Oneida) R. Olivieri State District EOC FEMA S. McIntosh FEMA (Team Chief) Oswego County EOC R. Jones Osweyo County EOC G. Barber FEMA (CPR) Oswego County EOC NOAA D. Bartholf Oswego County, Field Response FDA R. Bernachi Oswego County EOC DOE G. Combs Onondaga County, Reception and Care FEMA (CPR) H. Edsall Oswego County, Field Response FEMA N. Fargo Oswego County EOC FEMA T. Holliday Oswego County EOC & Media Center M. Jackson FEMA Oswego County EOC USDA C. Malina Jefferson County, Reception & Care HHS/PHS R. Martin Oswego County EOC, Accident Assessmen. P. Mathews-Masumechi EPA Oswego County, Field Response, Trans. DOT(USCG) R. Tinsman MMPNS EOF NRC (Team Chief) T. Elsasser

L. Rice FEMA (CPR) NMPNS EOF, State-local Interface

In addition to the FEMA Region II RAC observer team, there were contractor personnel and visitors observing the exercise.

- 1/ When specific functions are not identified, observers generally covered a range of functions at their assigned locations.
- 2/ Center for Planning and Research, Inc. (under contract to FEMA).

8. Evaluation Criteria

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

- Capability outstanding; excellent demonstration.
- Capability good; exceeds minimum standards.
- · Capability acceptable; meets minimum standards.
- Capability weak; does not meet minimum standards.
- · Capability lacking; expected but not demonstrated.

9. Remedial Action Procedures

Provided under Part IV of this report are evaluations and recommendations for remedial actions. These evaluations and recommendations are based on the applicable Planning Standards (on which the State and local plans were developed) and Evaluation Criteria set forth in Section II of NUREG-0654, FEMA REP-1, Rev. 1.

In this report 32 recommendations are provided in continuing numerical sequence following the critique of each observed function. For example, an observation under II. Alerting and Notification of Officials and Staff might read: "There was no demonstration by means of a shift change or by listing designating replacement personnel that the jurisdiction could conduct operations around the clock for a protracted period." An example recommendation might read: "The jurisdiction must demonstrate the capability for continued 24-hour day emergency operation by means of shift change during the course of the exercise."

State and local jurisdictions are required to take remedial actions responsive, on a point-by-point basis, the the formal recommendations of the RAC. 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.

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 have been incorporated into the plan.

10. Review and Approval Procedures

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 togegher 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 CRF Part 350, Federal Regiver 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 concensus of the 24-member Federal Observer Team indicated that the objectives of the exercise were generally achieved, which were to assess the State and local response capability to protect the public in the event of a radiological emergency at the Nine Mile Point Nuclear Station (NMPNS) in accordance with the New York and Oswego County Radiological Emergency Response plans. However, because of the slender magnitude and short duration of the radiological release, the scenario did not require or result in a full demonstration of the offsite response capability.

The exercise focused on the State and local offsite response as well as the onsite response by the NMPNS. The NMPNS provided appropriate interface with the State and County both by issuing notifications of the simulated emergency event classes and releases and through the operation of its Emergency Operations Facility (EOF). The onsite response is not covered in this evaluation with the exception of the State-local coordination and interface functions at the NMPNS EOF.

The exercise demonstrated a mixed offsite capability to protect the public in the event of a radiological emergency at the NMPNS. In some observable areas, the demonstrated capability ranged from acceptable to above minimum standards, while in other areas, the capability was weak and/or not demonstrated.

In general, the State and local Emergency Operation Center (EOC) facilities and equipment, as well as the emergency management activities (e.g., direction and control and decision making) exceeded minimum standards. However, activities to gather radiological information (monitoring), as well as to implement notification and protective actions were generally weak or not demonstrated. As a result of these deficiencies, it is questionable as to whether or not the public in the area near the NMPNS could be protected if an actual emergency occurred.

Highlights of the observations follow: Positive observations include:

 Professionalism and dedication by the officials and staff participating at the State and local levels.

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- Sincere effort by most of those local emergency personnel (many of whom are volunteers) who did report and participate.
- Well designed and equipped State and County EOC facilities.
- An excellent Media Center that provided good facilities for the press and media.
- Generally effective emergency management operations within the State and County EOCs.

Areas of deficiencies noted by observers include:

- Lack of training on the part of most of the local emergency response personnel.
- Poor or lack of demonstration of radiological monitoring, exposure control. decontamination, and access control measures.
- Failure to adequately mobilize response resources because of the extensive involvement of volunteers having other normal workday committments, ostensibly because this was an exercise and not a real emergency.

III. EXERCISE SCENARIO

Synopsis and Critique

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The scenario provided a simulated series of events on-site that resulted in all four classes of emergency conditions being declared, which caused appropriate off-site response action to take place or be simulated.

The simulated emergency began with severe weather damage to the NMPNS transmission lines just outside of the plant site which tripped the power production equipment and also resulted in loss of off-site AC power. One of the two diesel generators at the NMPNS was out of service for maintenance, and the operable diesel generator malfunctioned, resulting in loss of on-site AC power. As a result of loss of power, together with other on-site problems, fuel damage occurred with the release of fuel element gap radioactivity into the reactor coolant system and subsequently into containment. An emergency condenser AC-operated isolation valve failed to close upon activation, followed by rupture of emergency condenser tubes resulting in a radioactive release into the environment. After a short while, repairs were made restoring on-site power and resulting in rectifying the other problems. The plant was then put into cold shutdown status.

Simulated winds were generally from the WNW which resulted in the simulated plume affecting a limited number of areas along the lake shoreline and some distance inland to the east of the plant.

The sequence of major events is summarized in the tabulation below:

EVENT

TIME *

Notification of Unusual Event (from off-site power loss)0740Notification of Alert (from on-site power loss)0850Notification of Site Area Emergency0907Notification of General Emergency - Radioactive Release1240Release Terminated, Plant Declared Stable, Recovery Started1400Termination of Exercise1530

* Approximate Actual EDT for exercise on September 15, 1981

It appeared that the timetable of exercise events was closely withheld from most of the off-site participants. However, the exercise date as well as the general time of the first exercise event apparently were known, since it is not practical to keep general information of the exercise date secret when

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actual demonstrations of response functions using volunteers require some advance administrative preparations, such as arranging for the volunteer participants, etc.

Recommendations pertaining to the scenario and the exercise in general are given under appropriate sections in the evaluations provided in Part IV of this report.

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IV. EVACUATIONS AND RECOMMENDATIONS

1. Emergency Operations Facilities and Resources

STATE:

EOC facilities at both the State EOC in Albany and the District EOC in Oneida were adequate for radiological emergency response operations. Internal communications were very good. Communications with the U.S. Coast Guard, however, were not demonstrated. In addition, the communications capability for coordination with the Canadian Province of Ontario was not observed.

EOC security was generally good, but there was some laxity in the communications area.

In the Operations Room of the EOC, the radiological situation was not depicted graphically. Some form of map display is needed to keep the operations staff, as well as representatives from the State agencies, informed of the developing radiological situation.

At the State District communications equipment was adequate, but internal communica lons recording and reporting should be made uniform. It was reported that facsimile equipment was not working properly and that there was some delay in receiving alert calls. Also, there were no maps showing population distribution near the nuclear facility by evacuation areas, although this information is readily available in the Oswego County plan.

LOCAL:

The Oswego County EOC in Fulton had ample operational space with adequate lighting, communications, wall maps and status displays. A good layout of the space and facilities allowed local agency officials to keep abreast of events and carry out their response functions. Some observers felt that a better exchange of air is needed for long periods of operation, but this may be attributed (at least in part) to the presence in the EOC of ten to twenty additional people, including official FEMA and State observers, contractor observers, and invited visitors.

Some improvement in security measures in the County EOC could be made. None of the observers or visitors who were already in the EOC at the beginning of the simulate emergency were verified against lists of persons whose presence was authorized. The guard position was observed to be unmanned once or twice for short periods of time. No in-out signing procedure was required, i.e., anyone could apparently have flashed an official-looking badge or pass and entered the EOC during the course of the day. However, if a sign in-out procedure is used, the guard position should be placed further down the hall so as to encompass the restroom facilities.

All noted communications difficulties (lack of information) appeared to derive from procedural rather than from equipment limitations or capability. Specifically, both internal and external communications capabilities at the EOC appeared adequate and included telephone and radio backup, although some difficulties were observed. The facsimile equipment, which was to be used to receive hard copy of press releases from the Media Center failed to function. Communications capability between the EOC and supporting local forces appeared adequate using telephone and radio backup. Some department heads, e.g., fire. public works, and social services, indicated that additional telephones are needed. Equipment for monitoring news releases over radio and TV is also needed. The hotline speaker phone direct to the County Liaison person at the EOF was highly utilized, although initial difficulties with disconnections occurred, and at first the EOC did not have the number for reestablishing contact. These difficulties were remedied early in the exercise period.

The EOC has a good PA system for announcements to keep the staff informed, but it could not be heard in the CRO area when the door was closed - a separate PA speaker for that room may be needed.

Displays in the EOC were adequate, except that there was no map of the ERPAs with associated populations, although this information is available in Volume 2 of the Oswego County plan. However, no display maps were in evidence outside the EOC for the field response team usage. More use of map overlays in the EOC, e.g., marking of the effected ERPAs, are needed.

The MAP licensee's EOF was more than adequate with regard to space, security and communications capability. However, a State representative indicated that the EOC was too close to the plant in the event of a substantial radiological release.

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RECOMMENDATIONS:

- Communications and liaison with U.S. Coast Guard and liaison with Ontario should be effected in future operations or simulations. (Reference: NUREG-0654 F.1)
- 2. Although it is understood that State and local agency representatives and other non-radiological staff members do not need to know the technical details of the developing radiological situation, there is need within each EOC for displaying a map on the Operations Room wall showing the basic changing radiological situation, so that all staff members can keep adequately informed. (Reference: NUREG-0654 H.3, J.10)
- 3. Improvements recommended for the State District EOC include:
 - Maps should be displayed that show the population distribution near the nuclear facility by evacuation areas (ERPAs).
 - Internal communications and recording reporting should be made uniform.
 - Facsimile equipment should be maintained in an operable condition.
 (Reference: NUREG-0654 F.1 and J.10)
- 4. Steps should be taken to tighten up security arrangements, as indicated in comments above. (Reference: NUREG-0654 H.3)
- 5. Improvements should be made in communications in the Oswego County EOC including some additional telephones for Social Services, Fire, and Public Works; radio and TV equipment for monitoring news releases; and operational facsimile equipment. (Reference: NUREG-0654 F.1)
- 5. More extensive use of wall display map overlays could be made, such as indication of effected ERPAs, location of the plume, etc. Also a map showing population by each ERPA is needed. (Reference: NUREG-0654 J.10)

2. Alerting and Mobilization of Officials and Staff

STATE:

Minimum standards were met in this area at both the State EOC and State District EOC. However, it was reported that at the State EOC some officials were unrealistically prompt in reporting for duty, while other State agency representatives were slow in arriving at the State EOC.

LOCAL:

Mobilization of the staff was timely and effective. In fact, most of the Oswego County EOC staff had reported prior to the declaration of an Alert classification, which is unrealistic, but understandable under the circumstances, since the exercise is anticipated to escalate conditions of seriousness. State and County liaison personnel reported to the EOF in a timely manner. Local personnel, both in the EOC and community response agencies in the field, were perceived as serious in attitude and dedicated to the tasks that might be necessitated in the event an actual emergency were to occur.

A shift change did not take place at the County EOC, but observers were able to determine that adequate second shift personnel were available (some participated in the exercise with their primary staff person) in all positions except the position of the County Radiological Defense Officer. RECOMMENDATION:

7. A second Radiological Defense Officer should be designated and trained for the County EOC. (Reference: NUREC-0654 A.4, I.8 and 0.5)

3. Emergency Operations Management

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STATE:

The professional quality of the staff at the State EOC and its effective leadership was impressive. Although more play between all monitoring teams and the State EOC appears to be needed, there was solid management at State level.

It was apparent that official support of RER activity at State level was good. Some State agency heads (e.g., Police, Transportation) participated in the exercise at the State EOC, and State agency representatives appeared to have the authority to make appropriate decisions in emergency operations. Especially noteworthy was the efficient distribution of status information to the staff (i.e., copies of actions; periodic summary reports) throughout the exercise.

It was felt that too much local governmental autonomy was authorized by the State for an emergency of this scope. In reality, even though only the County declared a State of Emergency (in accordance with existing plans), the State would be more heavily involved. Adequate play in the exercise would include more interchange of information between State and local levels, including periodic and systematic reporting by the local government of the developing situation for the information and guidance of all staff members at the State EOC (this in addition to requisite informal telephonic recommendations between State and the County officials, which did occur). In this connection, radiological information from monitoring teams on the scene should be reported to the State EOC on a continuing basis.

Also, Federal participation was inadequate. Future exercises should include appropriate Federal agency support play; N.B., the experience of the Three-Mile Island incident. FEMA did have a representative from their Response and Recovery Division on site to monitor in the event of an incident escalation. In addition, it was reported that necessary agreements with the U.S. Coast Guard were not available. No contact was made with the Coast Guard or with Canada.

Knowledge of State agency roles between involved parties needs improvement at the State District EOC, but the operation there was generally well managed.

LOCAL:

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Direction of the County emergency organization was ably handled by the Civil Defense Director with excellent coordination and support by the County Administrator and Executive. County agency officials and staff worked well together. Apparently all the necessary response organizations had representatives at the EOC. This enabled conferences to be held and decision making to be done with the greatest amount of input. When decisions were reached, the proper representatives were thus immediately available for execution of their responsibilities.

Thus, from the perspective of the activity at the County EOC, management, decision making, and staff work was capably demonstrated, but, from an implementation perspective, this was not matched in the field, where implementation was sporadic, much simulation occurred, and there was apparent lack of direction or understanding of what was to be done on the part of many of the participants. There appears to be a lack of training and experience in such matters. For example, no demonstration of route alerting occurred, and only token demonstrations of traffic and/or access control measures occurred.

A few of the staff in the County EOC were not fully familiar with their plans and procedures, or the meaning of such terms as ERPA. However, copies of the plans were available and several agencies had their own procedures, both of which were referred to as necessary. Thus, some additional training, probably in the form of experience through additional exercises or drills, is desirable for county personnel in the EOC and extensive training is apparently needed for community personnel (most of whom are volunteer) for implementing the response actions. At should be noted that this need was also recognized by several participants in their questionnaire.)

Appropriate use of the emergency classification system was made and procedures for emergency actions appeared consistent with recommendations and offsite conditions. However, the proposed action to carry out a precautionary evacuation of pregnant women and children appeared to some observers as premature in light of the events.

At the EOF, the three State representatives and the one local representative present were underutilized, and served basically as one-way informational conduits of information from the utility and their respective EOCs. There were few licensee consultations at the EOF that involved and required input from the

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State and local representatives. Additional State and County decisions were fragmented and slow in reaching these representatives, so that they had difficulty in relaying to the licensee reasons for State and County decisions. Thus State, County and Licensee officials did not fully and properly utilize the EOF for its intended purpose of informational discussion and coordinated decision making. This was no reflection on the State and County representatives who seemed eager to perform the intended EOF functions, but instead were used primarily to obtain and provide data to their respective bases, rather than vice versa.

RECOMMENDATIONS:

- 8. Consideration should be given to establishing a systematic reporting system from local governments to the State EOC for protracted radiological emergency response operations to assure exchange of operational status information (including coordinated radiological status information). This system would be in additional to present informal executive telephonic communications, which should continue. (Reference: NUREG-0654 A.2 and F.1)
- 9. Future exercises should include appropriate Federal agency operations participation (FEMA, NRC, DOE, IRAP, etc.) to assure interface with all agencies that will be on hand in a real emergency. Featured also should be play involving a State Declaration of Emergency and multi-county involvement. (Reference: NUREG-0654 A.3 and N.1)
- Review should be made to assure that existing agreements with support agencies (such as the U.S. Coast Guard) are current and correct for RER emergency. (Reference: NUREG-0654 A.3)
- State and local agencies should effect necessary programs to assure adequate training of persons with support roles (both staff and field) concerning provisions of existing plans and basic policy (e.g., a policy on the use of KI) and essential radiological knowledge. (Reference: NUREC-0654 0.1, 0.4 and 0.5)
- 12. The roles of State and local representatives should be enhanced to provide a two-way channel of information. This will require cooperation of the licensee, as well as clarification of the function of the EOF. (Reference: NUREG-0654 A.1, A.3 and H.2)

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4. Public Alerting and Notification

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STATE:

Implementation of public notification systems is handled mostly at the local government level. However, it was noted at the State EOC that available information indicated a failure to notify (via the U.S. Coast Guard) those persons on the coastal and water areas affected by the plume.

LOCAL:

The complete system of sirens and tone-activated radios has not yet been installed. In the meantime, current notification of the public is carried out by means of NOAA weather radio, the broadcast media, and mobile vehicles with public address systems, which alerts the public in turn on radios, etc. The routealerting system was reported to have been demonstrated in ERPA 1 according to officials at the EOC, but field observers found that it did not take place.

There was a lack of coordination between simulated EBS releases and route alerting. The EBS radio station was not alerted to standby. The link to the EBS system should be more realiable and the County PIO needs a protected code to access EBS. There apparently are no special measures to notify transients, and procedures for notification of boaters, etc., on Lake Ontario needs to be strengthened. County news releases should expand on identification of ERPA describing them for the public, since not all citizens may have the brochure boundaries handy if and when an actual emergency occurs.

RECOMMENDATIONS:

- 13. The importance of coordination with the U.S. Coast Guard and others to iss adequate notification to individuals on coastal areas affected by the plume should be emphasized in plans, preparations, and exercises. (Reference: NUREG-0654 E.6)
- 14. As long as the interim system of route alerting is the only primary means for notification of the public, it should be demonstrated. In future exercises, notification of the public should be demonstrated as fully as practicable, without risk of unduly alarming the public. (Reference: NUREG-0654 E.6, N.1)
- 15. Public notification procedures should be improved, including those for the use of EBS which should be reviewed and strengthened as appropriate. A

protected code should be provided for to allow the County PIO to access EBS. Also, measures for notifying transients and boaters must be improved. Finally, ERPAs should be defined in terms that the public can understand in case the information in the brochure is not handy. (Reference: NUREG-0654 E.6, E.7 and J.10)

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5. PUBLIC AND MEDIA RELATIONS

STATE

Although most P.I. matters were handled at local level (Media Center, EOF, and County) the PIO at the State EOC did a great job in keeping all media and participants informed, including making copies of the news releases (State, County and utility) available and furnishing excellent pre-exercises, background P.I. patkets. Also, simultaneous and live receiving (by local speakers) of County and other news conference was made available at the State EOC news media room -- and opening to questioning by news media representatives at the State Headquarters was used to good advantage. Also available at the facility was a utility representative with technical capability to insure answers to technical questions by newspersons (also, used to advantage to clear up disputed questions and problems). Periodic briefings were also featured. But the utility pamphlet for protection and use by the public at risk was not available at the State EOC. However, since no State-level disaster emergency was declared, the State-level PIO capability was not fully demonstrated.

LOCAL

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The Media Center at the Naval Militia Building was well staffed and equipped and served the media adequately.

The brochure titled "Nine Mile Point Emergency Planning and You" is not yet completed and distributed to the public. It will be absolutely necessary for the public to have this booklet on hand if the public notifications of actions to be taken refer to the affected areas only by ERPA numbers. Howeve this procedure is risky, and notifications to the public should also include descriptions of the affected ERPAs by recognizable features.

County news releases did not contain complete information (e.g., boundaries of ERPAs, school evacuation details, etc.) and should follow standard news release format.

There was excellent liaison between the Media Center and the County EOC, although the facsimile equipment that was to provide hard copy of the releases to the county EOC failed to work.

Arrangements for exchange of information among spokespersons were good, but review of news releases should be more thorough to insure that State and County provide the same information. Arrangements should be made to insure that all decision-making locations can receive hard copy of news releases (as well as be able to monitor TV and radio releases) on a timely basis.

Arrangements for rumor control could be improved with the addition of more publicity, phones, and staffing.

RECOMMENDATIONS:

- 16. The brochure should be completed and distributed to the public. (Reference: NUREG-0654 G.1 and G.2)
- 17. Equipment should be provided to insure that State and County EOCs and the EOF can receive hard copy of news releases and are able to monitor TV and radio releases. (Reference: NUREG-0654 F.1 and G.3)
- 18. Steps should be taken to enhance the rumor control function by providing more publicity, additional telephones and staffing. (Reference: NUREG-0654 G.4)

6. Accident Assessment

STATE

The State staff dealing with radiological matters was of high professional caliber, and sufficient in number for effective operations. Nevertheless, enviornmental assessment was weakened by a lack of environmental data in support of dose projections. Timely and appropriate guidance concerning protective measures in the ingestion EPZ, including dairy facilities, was given to local government by State agency representatives at the State EOC (e.g., agriculture).

The direction of the plume covered both land and water (lake) areas east of the plant. There was no consideration given to or at least no mention of the condition over the water portion of the EPZ. There was no mention of the Coa. Guard, and no notification of the Coast Guard was made by the State. (The assigned observer contacted the Coast Guard District Commanders' staff on the day following the exercise and confirmed that the Coast Guard had not been notified).

The State did not deploy any monitoring teams, ostensibly because it was not requested by the local government and there was no declaration of disaster by the Governor. However, the State reportedly does not maintain a capability to field monitoring teams since it is fostering the development of an automative system of field detectors linked to a computer the State.

LOCAL:

In accordance with the plans, the local jurisdiction takes an active role in accident assessment and the developing of renommendations of protective actions. The technical capability to assess and evaluate radiological data at the county EOC appeared adequate. However, the lone County RADEF Officer (CRO) was continuously interrupted in his calculations by the need to respond to the hotline link to the EOF. A qualified technician could be used to perform the secondary calculations.

There was almost no field monitoring capability demonstrated. Equipment was limited and what there was is normally sorted at the County and not readily accessible for those assigned to do the monitoring. Actually, only one

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(volunteer fire department) team was activated, and the lack of sufficient training was evident. The team personnel admitted that they had received only two hours of training during the week prior to the exercise and were using the meters incorrectly. (wrong scale).

The volunteer fire department radiological monitoring team never reported meter readings, nor were they over asked for the data. There was apparently a severe lack of direction from the County EOC, although they apparently were in communication through the fire control. The team was twice observed being given incorrect coordinates. As reported only one sample (an air sample) was collected and the team did not know what to do with it. However, another sample was delivered to the CRO for shipment to Albany via the Civil Air Patrol. This sample was transported by Sheriff's vehicle to the airport before the release occurred.

The County representative did not forward the results of the county monitoring effort to the established EOF central data collecting point, apparently not recognizing the requirement to do so.

RECOMMENDATIONS:

- 19. Future exercises should include full play of dynamic development of environmental data (including radiological readings and coordinated data from monitoring teams) -- transmitted to State EOC on a continuing basis throughout the simulated emergency. (Reference: NUREG-0654 I.7, I.8, I.9 and I.11)
- 20. The State should insure that all areas affected by the plume are notified, particularly those areas not under the direct responsibility of the local jurisdiction, e.g., Lake Ontario, which requires notification of the Coast Guard. (Reference: NUREG-0654 I.11)
- 21. Extensive training of radiological monitoring personnel for field teams is necessary. This should be followed by drills involving the CRO, Fire Control and the teams in the field. The drills should involve the CTO in guiding and directing the teams reporting along with actual monitoring and reporting procedures. (Reference: NUREG-0654 I.7, N.2, 0.1, 0.4, and 0.5).

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- 22. Adequate equipment should be provided and conveintly stored in local facilities for prompt actual use or for periodic training and drills. (Reference: NUREC-0654, H.2, 1.7 and 1.8)
 - 23. The CRO, through the county representative, should continually report the information received from the county monitoring teams to the EOF central data collecting point. (Reference: NUREC-0654, H.12)

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7. Actions to Protect the Public

LOCAL:

Most implementing action in this area was at county level in accordance with existing plans. Protective measures were not based on the Protective Action Guides (PAGs). Sheltering, closing of schools, and selective evacuation were ordered before there was any release, raising the question of the need for such precautionary measures at that time, since the decision was made on anticipated core-uncover time. In this aspect, the plan was not followed by either the State or the County. However, had a significant release occurred, the precautionary measures might have proven prudent.

While resources to carry out evacuation in the field were not actually observed, it appeared that most of the officials in the EOC were very aware of their resources and indications were that they could be employed efficiently.

Actions at reception centers and congregate care centers were observed in Jefferson and Onondaga Counties. Personnel involved were from the Oswego County Department of Social Services and the local Red Cross Director Assistance Team.

The Jefferson County Civil Defense office was also visited, which was impressively equipped and exhibited good overall execution of its coordinating and other functions appropriate to its role in the exercise. In an actual emergency, however, staff strength (in numbers) may not be adequate to cope. A commendable feature of their planning is an arrangement with nearby Fort Drum to handle approximately 20,000 evicuees.

Dedication and enthusiasm shown by reception center and congregate care center personnel were excellent, and there is good evidence that a start has been made in qualifying at least a beginning nucleus of individuals in the establishment, operation, and closing of such centers. Much more individual and team training is needed, however, both formal and on the job in realistically simulated actions, to achieve capability to operate effectively in an actual emergency.

Additionally, there are some concepts of operation and procedures that merit reconsideration and possible change; these are included in the following recommendations.

RECONDENDATIONS:

- 24. Because evacuees are free to bypass reception centers and proceed directly to congregate care centers (even though the larger volume may be at the reception centers), consider equipping and staffing each with more nearly identical capabilities, especially the capability to decontaminate congregate care center arrivals who were not decontaminated at a reception center. Red Cross participants stated that they do not now, nor intend to, differentiate between the centers; whichever they serve in, they intend to equip and staff it as a fully-competent Red Cross "shelter." In this regard, the operations-level relationships. between Red Cross and County Departments of Social Services should also be reexamined. (Reference: NUREG-0654, J.10)
- 25. Intensify both individual and team training. (Reference: NUREG-0654, J.10, 0.1 and 0.4)
- 26. Forms for processing evacuees should be standardized; this was not the case among the different reception centers observed. (Reference: NUREG-0654, J.10)
- 27. Intensify efforts to ensure full staff capability to operate both reception centers and congregate care centers 24 hours a day if required. This includes provision for feeding Department of Social Services staff where the Red Cross is authorized (by its own regulations) to feed only Red Cross personnel and evacuees. (Reference: NUREG-0654, J.10)
- 28. Arrange for standby emergency power for cooking at the congregate care center in the New York State Office Building in Watertown, and at othe reception and congregate care centers (not observed in this exercise) where there may be no alternatives to offsite power. (Reference: NUREG-0654, J.10)

STATE:

Although most action in this area occurred at local level, handling of State support was acceptable. However, there seemed to be confusion by State agency representatives concerning existing policy on the use of potassium iodide (KI).

LOCAL:

The token demonstration of access-control measures was acceptable, but was limited to only three locations and was not considered a true test of local capability.

Decontamination and exposure measures were either not demonstrated or weak. here was no medical demonstration, but it is understood that it was deferred as a special demonstration and is scheduled to be held on October 23rd.

The monitoring team never looked at its dosimeters. The team had to be told once to turn on its exposure meter. No one asked for team readings, and they were never told whether they should proceed to a decontamination site.

Observers were shown the decontamination facilities at the County EOC. There are problems with (1) what to do with persons with non-removable contamination (EOC personnel did not know that the plan calls for removal to hospital), and (2) monitoring the area subsequent to decontamination actions, i.e., the shower leads directly into the men's dormitory area.

It was learned that ambulance drivers outside the service areas which ormally respond to the utility plant do not have any protective clothing, and were told to purchase some on the way to the response site.

RECOMMENDATIONS:

- 29. An actual demonstration of exposure control and decontamination measures should take place in a future exercise. (Reference: NUREG-0654 K.3, K.4, K.5, N.1 and J.10)
- 30. Consideration should be given to providing further training for State EOC staff on existing State policy on the use of KI in radiological emergencies. (Reference: NUREG 0654 K.3 and 0.4)

9. Recovery and Reentry Operations

STATT:

Prior to reentry operations, high-level staff planning sessions were conducted and decisions transmitted to local government and also to the State staff (by special briefings). The basic plan for return was rather generalized but essentially correct as long as in a real emergency, appropriate staff is provided to work out implementing details, such as a method for periodically estimating total population exposure.

LOCAL:

Activity in the County EOC was effectively carried out. Reentry tasks were assigned to various officials and agencies, and the status of activities was monitored and reported to all sections of the EOC by announcements over the PA system. There was no field activity observed, such as shifting of road block traffic control, etc.

RECONDENDATIONS:

31. Implementation of reentry actions by field elements should be demonstrated in future exercises. (Reference: NUREG-0654 M.1 and N.1)

10. Relevance of the Exercise Experience

STATE AND LOCAL:

Although most agreed that the exercise was satisfactory in providing benefit to participants, many observers felt that the scenario was deficient in testing the capability to mobilize the resources of the State and county governments. It was also reported that there should be more spontaneity in the exercise (one observer stated that the "scenario should not have been rehearsed.") It was also suggested that participants would learn more in a more closely realistic situation featuring more staff problems. Since the County executive chose not to ask for a State Declaration of Emergency during the play of the exercise, the State capability was not fully tested. Conceivably, this exercise could have failed to test any off-site response capability with the exception of notification and activation, since the magnitude and duration of the radiological release was not of sufficient magnitude to stress and demonstrate the decision making and implementation of the response actions.

On the other hand, the exercise experience did reveal many of the problems and deficiencies that appear to exist, including the lack of training and to some degree the minimal or lack of commitment of personnel resources in the field due to the extensive involvement of volunteers who have other responsibilities during the normal workweek in an "exercise only" situation.

Many of the participants also recognized their need for more training and experience, and felt that the exercise was of great benefit to themselves, as well as to their response organizations.

RE! MENDATIONS: (See also Recommendations 9, 15, 29 and 30)

- 32. A future exercise should be conducted with a scenario that will more fully test the offsite response by both State and local levels, as well as involve Federal agencies. Such an exercise might be scheduled to be held on a Saturday in order to more fully activate local response organizations that depend upon volunteers for much of the staffing. (Reference: NUREG-0654 N.1 and N.2)
- 33. Follow-up action should be programmed to profit from lessons learned in this exercise. (Reference: NUREG-0654 N.5)