Federal Emergency Management Agency

Washington, D.C. 20472

JAN 9 1984

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

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

SUBJECT: Exercise Report of the June 18, 1983, Small-scale Exercise of the Offsite Radiological Emergency Preparedness Plans for the North Anna Nuclear Power Station

Attached are two copies of the Exercise Report of the June 18, 1983 joint exercise of the offsite radiological emergency preparedness plans for the North Anna Nuclear Power Station. Virginia State and Caroline, Hanover, Louisa, Orange, and Spotsylvania counties participated in the small-scale exercise. The report, dated July 13, 1983, was prepared by Region III of the Federal Emergency Management Agency (FEMA).

Although there were deficiencies observed at the exercise, they did not detract from the overall demonstrated capability to protect the public. The attached schedule of corrective actions has been submitted by the Commonwealth of Virginia. Based on the exercise and the State's corrective actions, we cannot identify any impediments to protecting the public in the event of an accident at the North Anna Nuclear Power Station. Therefore, the "350" approval will remain in effect.

If you have any questions, please contact Mr. Marshall Sanders, Acting Chief, Technological Hazards Division, at 287-0179.

Attachment
As Stated

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Federal Emergency Management Agency

Region III 6th & Walnut Streets Philadelphia, Pennsyivania 19106

JUL 13 1983

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

FROM: John Wm. Brucker
Regional Director

SUBJECT: North Anna Power Station Exercise

Attached is a copy of the evaluation report for the North Anna Power Station exercise which was conducted on June 18, 1983.

The State elected to participate only to the level necessary to ensure full participation by the County governments.

Spotsylvania County did not perform as well as we had anticipated and had a number of "direction and control" and "judgment" discrepancies.

We have asked the Commonwealth of Virginia to advise us concerning our recommendations by September 15, 1983. We will forward that report upon receipt.

Overall we felt the Commonwealth of Virginia and the five participating Counties demonstrated to our satisfaction that they are able to protect their citizens in the event of an accident at the North Anna Power Station.

Attachments
Exercise Evaluation Report
Letter to Virginia

JUL 1983

Mr. H. Kim Anderson
State Coordinator
Office of Emergency and
Energy Services
310 Turner Road
Richmond, VA 23225

Dear Mr. Anderson:

Enclosed is the narrative report of the North Anna Nuclear Power Plant Exercise. conducted on June 18, 1983.

While every exercise will determine some discrepancies, we felt that the number and scope of discrepancies noted in Spotsylvania County were not indicative of past performances. There seemed to be a regression in this County's state of their preparedness. Positive actions must be taken to restore and exceed their previously reported preparedness levels especially in the areas of prompt response, route alerting and direction and control.

Overall we felt the State and County governments adequately demonstrated the ability to protect their citizens.

We would appreciate being advised of your comments/proposed actions/corrections on the recommendations contained in the report by September 15, 1983.

As you know there is a requirement to exercise your plans "between 6:00 PM and midnight and another between midnight and 6:00 AM" once every six years. We would like to see Virginia meet one of these requirements in the next exercise.

Sincerely,

John Wm. Brucker
~~Regional~~ Director

Enclosure
Exercise Report

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I. EMERGENCY OPERATIONS

State

The space and equipment provided was adequate for completion of scheduled activities.

Action officers were established to handle incoming calls from the localities; Department of Health (Bureau of Rad Health) personnel were in near constant communication with the EOF (State and Vepco personnel), Communications provided general feed-back to and from localities via Insta-phone, and Operations Officer fielded/sent messages as required. All personnel kept written record of messages sent/received, logged messages, and, via support personnel, provided immediate Xerox copies to all EOC staff of particular impact to the operation. A status board was kept, timely, of major status events, changes.

Maps were posted displaying Sector/Zone delineation, evacuation routes, and relocation centers. Traffic/access/rad monitoring points, and population by sector information was available but not posted.

EOF

The North Anna EOF has been relocated from the site Visitors Center to the unit simulator located in the training building. Consequently, the previously identified concerns in the areas of facilities layout, coordination between State ~~agencies, and State and licensee interface have been satisfactorily resolved~~ with this change. Although the new EOF is relatively small, optimum coordination between State agencies, and between the state and licensee personnel can be achieved and the new facility does lend itself to an effective operation.

Caroline County

The Caroline County EOC was adequately equipped with furniture, telephones, and space. This local EOC is located well outside the plume EPZ, so protection of EOC personnel is not an issue. Message handling within the EOC was efficient. A status board was clearly visible and kept up-to-date on significant events. The following maps were likewise posted: plume EPZ, with sectors labeled; evacuation routes; relocation center location; radiological monitoring points; and population by sector. A map showing traffic control points was available but not posted.

Hanover County

The EOC was composed of an operations room, an outer reception/phone room that was monitored by a secretary and four contiguous offices with phones that were used by County emergency response personnel. The Emergency Management Coordinator provided strong leadership and directed the operations of the EOC staff.

Status boards were clearly visible and were updated at the appropriate times indicating significant events. Maps were displayed and included information on the plume EPZ with sectors labeled, evacuation routes, relocation centers and radiological monitoring points.

Both the EOC and the communications/dispatch have 24 hour capability and emergency power backup.

The Hanover County EOC is an adequate facility for coordinating the County's response in the event of an emergency at the North Anna Power Station.

Louisa County

The EOC was arranged in a compact manner allowing easy flow of information among participants and immediate access to visual boards. Although small, there was adequate space and furniture for all participants to be comfortable during a long operation. Not every person was provided a desk and telephone but there were enough to be readily available if needed.

Message logs were kept in both the dispatcher's office on the first floor and the EOC on the third floor. Relay of information was done verbally between the Coordinator and the people in charge of areas affected by the message. Because of the close proximity of all individuals this accomplished the purpose. However, it would be well to either copy the messages and distribute to all participants or post copies on a central message board that could be reviewed by all. If a participant was out of the room or otherwise occupied they could have missed an action. In addition, not every participant was informed of every action.

A status log was attached to a corner of the map display. Included on this log were the classification levels. A blackboard or separate visual display would be beneficial to more easily determine what stage the incident was in at any given time. Initially, postings to this log were running about 30 minutes behind the action. This was corrected as the action developed.

Large visual displays identifying evacuation zones, plume EPZ, evacuation routes, relocation centers and radiological monitoring points were well prepared and maintained.

Traffic control points and access control points were also shown by an "X" on one of the map displays. While this was identified it was not readily apparent to all people what the "X" represented. Either a separate display board, a briefing to the particpiants to explain the markings on the present board, or markings that would be easier to spot with a key added to the corner of the board could prove beneficial.

Population by sector was not posted but was readily available in the County plan.

Orange County

The Orange County EOC consists of the office of the Emergency Services Coordinator, plus adjoining rooms for support functions, i.e., clerical, radio communications, and RADEF. There were sufficient furniture, space, and telephones. Noise was adequately controlled by separation of the communications room from other activities. EOC staff would reportedly go home between shifts, hence no provisions at the EOC for bunks or feeding have been made. Backup generators are available for both the EOC and the sheriff's office to power lights and communications.

Due to a malfunction in the EOC generator, borrowing of an additional generator from the fire department was simulated. The EOC is not within the plume EPZ, hence personnel protection was not required.

Logs of messages and response actions were kept. Insta-phone messages were recorded on the pre-printed forms, reproduced and distributed as appropriate. The Insta-phone messages were also tape recorded for later reference. Message handling was efficient between the several rooms of the EOC. It was observed, and noted by the players as well, that reproduction and distribution of the pre-printed message forms would be easier if all the information were printed on one side of the page. A status board was centrally located and kept posted with emergency classification and other significant events. Maps were posted showing the plume EPZ with sectors and zones labeled, and evacuation zones, evacuation routes, traffic control points, and radiological monitoring points. Only one evacuation zone affects Orange County; the population of that zone and the location of their evacuation assembly center (EAC) were well known to participants.

Orange County communications to EBS stations, media center, support hospitals, and ambulances were not applicable in this exercise.

Spotsylvania County

An Unusual Event was declared at 0503 hours by the North Anna Power Station. The Alert and Site Emergency notifications were received in a timely manner. However, approximately 45 minutes elapsed before the EOC had received notification from the plant that the action level had reached a General Emergency.

These messages were received via Insta-phone and so there was no need to verify the calls. The dispatcher explained that there was no need for verification because the phone was a direct line from VEPCO and that messages were sent via VEPCO messages.

There appeared to be enough furniture to accommodate all the participants, however, there were occasions when personnel were crowded for space. The facility had adequate space to support extended operations, if necessary. Backup power was provided for emergency power.

VEPCO messages were logged and distributed as they were received. However, the status board was not kept up-to-date on significant events.

Adequate maps were posted and displayed indicating plume EPZ sectors and radiological monitoring points as established by the County RADEF Officer. These maps were shown during pre-briefing activities with the field radiological monitoring teams. Other displays were available.

Status boards were clearly visible, however they were not kept up-to-date. Current status of plant conditions were running approximately 30 minutes behind schedule. Security appeared to be adequate. All personnel entering the EOC were required to identify themselves. All personnel were issued identification once inside the EOC.

II. COMMUNICATIONS

State

The communications capabilities between the EOC, power plant and risk areas are excellent. The Insta-phone is used as the primary means of coordination, with a dedicated ringdown circuit also available. A teletype capability has been installed to provide a means of using the statewide police teletype system for hard-page copies. The following backup systems exist within the EOC: 1) CAP and RACES radio networks; 2) commercial telephones; 3) SCATS FTS system; 4) CDNAVS phone system; 5) police radio network; and 6) fax.

The State is in the process of installing a radio system that will tie them into all local hospitals and emergency vehicles.

The EBS system was activated using the RPU link to radio station WRVA in Richmond. The State insures that the message is rebroadcast by having local EOCs monitor their EBS stations and report back to them. This allows for followup action to be taken on any problems that may exist in the system. The State is also notifying the UPI and AP news networks on EBS activations. This allows EBS stations to receive a hard-page copy of the EBS message as a backup to the radio link.

The State has the capability to activate and monitor the siren system.

The State emergency mobile communications van was located at the EOF to provide backup radio and telephone systems.

Overall the communications operating procedures and capabilities were outstanding. All message traffic was recorded and posted in accordance with VOPEX 83.

Hanover County

The primary means of communications is the Insta-phone which is located in the communications/dispatch office. All traffic received is then relayed to the EOC by commercial telephone. The communications office has backup systems by using the State Police, CAP and RACES radio systems and commercial telephones.

Both the EOC and communications office are manned 24 hours and have backup generators in case of commercial power failures.

Louisa County

Primary communications between the County, EOF and State EOC is by the Insta-phone. The County has a drop off the Insta-phone into the EOC and dispatcher office. RACES provides two backup radio systems and commercial phones are also available.

The sirens were activated from here with no problems.

Orange County

Communications at the dispatcher's office were confusing. The one deputy on duty had to monitor the Insta-phone from the State EOC and EOF and also perform

his other police duties. At times he was overloaded with traffic that could have been eliminated by the EOC taking over responsibilities sooner than they did.

Primary communications for the radiological teams was provided by RACES to the EOC.

The Insta-phone is backed up by CAP and RACES radio systems and commercial telephones. All message traffic was posted on a board in the EOC which allowed everyone participating to know the current phase of the exercise.

Spotsylvania County

The County's primary communications to the EOF and State EOC is the Insta-phone. There are also dedicated automatic ringdown circuits to the NAPS, EOF and State EOC. Backup radio systems are provided by the CAP and RACES. Teletype messages can be sent on the State Police network or SIRS. The County has developed a new general message form which is used to record the date, time, action or information agency, originator's initials or number, followup action and transmission means. All traffic received is posted on a status board for all participants to view. The new form eliminates difficulties experienced in previous exercises. Physical security and visitor control was good.

EOF

~~The Insta-phone is used as the primary communications channel between the EOF~~, EOC and risk areas. Primary communications to the radiological off-site teams is by a dedicated ringdown circuit. The State provides backup radio and telephone systems through their mobile communications van. Other backup systems available are: 1) VEPCO-owned microwave link to the State EOC; 2) ring-down circuits; 3) commercial telephones; and 4) CAP and RACES radio nets.

Communications for the news media is provided to the Corporation HQ by dedicated landlines with telephones as backup.

A telefax circuit exists between the EOF and EOC for passing teletype traffic.

The physical security was very good.

III. ALERTING AND MOBILIZATION

State

Because the assigned observer responded to a real life hazardous situation, observation of receipt of Unusual Event and Alert was not completed. Log shows these occurring at 0503 and 0540, respectively. Observer assumes Insta-phone was also used for this purpose. Messages were not verified as this is a direct line.

Staff mobilization was demonstrated via call down list, and was complete at around 0910. Round-the-clock staffing was indicated by dual shift roster. Operations officer advised that actual reporting times of personnel is 1/2 hour before that time listed, in order to effect de-briefing.

Caroline County

The Caroline County EOC received the following notifications at the stated times: Unusual Event at 0503 hours, Alert at 0540 hours; Site Area Emergency at 0840 hours; and General Emergency at 0925 hours. These messages were not verified as they were received via Insta-phone. Staff mobilization procedures were demonstrated, with staffing of the EOC complete by 0720 hours. A round-the-clock staffing capability was demonstrated by means of double staffing and presentation of a roster. Since an actual shift change did not take place, no incoming staff briefing was appropriate.

Hanover County

The various alert classifications were received in the communications room and delivered to the EOC quickly. All classification messages were received in the EOC within 10 minutes of notification by the utility. There was no need for verification of the messages as they were all received on the Insta-phone.

Staff mobilization procedures were demonstrated. The Public Information Officer and the Beaverdam Fire Department were not scheduled to participate in this exercise. Staffing was completed by 0930 hours, forty minutes after declaration of site emergency which triggers full staff mobilization.

A roster of primary representatives and alternates is maintained for each EOC position. The Emergency Services Coordinator's alternate is Assistant Fire Chief Birch. ~~Five of the Chiefs of the 11 county volunteer fire departments~~ have been trained to act as EMC. In addition to representation of a roster for replacements/shift changes alternate EOC representatives were present.

Louisa County

Notification to the County was made in a prompt manner by VEPCO utilizing the Insta-phone system and was verified at the end of the message utilizing a roll call process. A backup radio system is also available if necessary. Both methods of communication are tested, by the utility, during each shift. The call is received in the County dispatcher's office (operational 24 hours). An extension is also located in the County Administrator's office.

Upon receiving notification of an incident at North Anna, the dispatcher contacts the appropriate individuals, according to a written call-down list. The EOC is activated at the Alert stage, it taking approximately 1 hour 15 minutes during today's exercise before it was considered fully staffed. Round-the-clock staffing was demonstrated through the presentation of a roster for all key positions, with the exception of the PIO.

Orange County

Notification from the licensee of each emergency classification level was received via Insta-phone simultaneously with the other affected jurisdictions. According to the plan, the Insta-phone messages required no additional verification. Insta-phone messages were monitored by both the sheriff's dispatcher

and the EOC, and both locations have telephone lists of key personnel to provide for 24-hour notification. Staff were mobilized according to the SOP, using a written call list with current business and home phone numbers. However, notification of staff at the Alert stage took longer than necessary. The Emergency Services Coordinator, promptly notified by the sheriff's dispatcher of the Alert, arrived to open the EOC at 0613. However, subsequent notifications of staff to come in or be on standby as appropriate, occupied the next hour, the final call going to the Director of Emergency Services at 0714. It was also not until 0714 that the sheriff was notified that the EOC would take Insta-phone messages, though they had been monitored by the EOC for the preceding hour; this delay placed an unnecessary communications burden on the sheriff's dispatcher. Local staffing of the EOC was completed by 0733, with the State OEES Regional Coordinator arriving by 0800. Staffing of 24-hour operations was demonstrated by the notification call list having primary and alternate personnel listed for key staff positions.

Spotsylvania County

Notification to the County was made by the Utility via a dedicated line Insta-phone system so no verification was necessary. The initial staff of the EOC responded in a prompt manner.

The EMC does not maintain a roster for a shift change as it is the responsibility of the various agencies to arrange for replacement. Better control could be maintained if this ad hoc procedure was abolished in favor of a planned response. Some positions were double staffed during the exercise.

IV. EMERGENCY OPERATIONS MANAGEMENT

State

The Operations Officer was responsible for coordinating EOC activities. The State Director of Emergency and Energy Services simulated approving authority for protective actions for the purpose of the exercise. Briefings were held with the staff at major status changes in order to forward information via Action Officers to localities.

Access to the EOC was controlled at interior entrance to the EOC.

Staff organization representatives were as listed in Module; Department of Agriculture activities were simulated by Action Officers. Plan calls for other active agencies to be activated at the prospective agency locations (this was simulated in exercise). First shift staff showed a high level of knowledge of individual responsibilities.

The Red Cross opened a district headquarters at Fredricksburg to support the Red Cross operation. The State Department of Social Services was simulated in the exercise. The Red Cross officials felt that there was a breakdown in information sharing between the State and ARC liaison and the district headquarters.

EOF

Overall, from an emergency management aspect, no major deficiencies were observed in the EOF. However, several concerns were noted as a result of decisions which

were made in the EOF and jointly agreed to by State and licensee personnel. These concerns are summarized below for information and action as appropriate by the State.

1. The licensee declared a general emergency at 0925 hours. At 0941 hours, the State and licensee had developed and agreed upon protective actions which provided for sheltering off-site personnel in designated sectors. The State EOC was promptly advised of these actions. At 1024 hours, the Alert and Notification siren system was activated by Louisa County officials and the protective actions were concurrently carried over EBS. The 43 minute elapsed interval between the time a decision was made and action initiated appears to be excessive.

2. Similarly, at 1043 hours the protective actions were upgraded to provide for 360° evacuation out to two miles. The State EOC was again promptly advised of these actions. EBS broadcast messages were not activated until 1116 hours, a delay of 31 minutes which is excessive.

3. The Spotsylvania County Emergency Services Coordinator contacted an NRC representative at the EOF to confirm that the protective actions were upgraded from sheltering to include evacuation. Questions of this nature should be directed to the State EOC.

Caroline County

The EMC was effectively in charge of the EOC for most of the exercise. Elected county commissioners did not appear at the EOC to take charge, as designated in the plan. They did not consequently participate in decision-making. No periodic briefings were held to update staff on the situation. Calls were made to activate radiological monitoring teams and to activate the relocation center. No calls to other response organizations or political jurisdictions to coordinate emergency activities were observed. Access to the EOC was controlled. The following organizations were represented at this EOC: RACES, Caroline County sheriff's department; Caroline County Social Services Department; Red Cross; Caroline school system; Upper Caroline Fire Department - Emergency Services; the Ladysmith, VA volunteer rescue squad; and the Caroline County government. This staff in general displayed very adequate training and knowledge.

Hanover County

The EMC was effectively in charge. Periodic briefings consisted of the relay of messages from VEPCO and announcements concerning activation of the Patrick Henry High School Evacuation Assembly Center.

Elected officials were not present for this exercise.

Because of the wind direction and consequent lack of effect of the "accident" on Hanover County, actions needed to coordinate emergency activities were limited to a simulated activation of police traffic and access control points and an actual activation of the Patrick Henry EAC.

Access to the EOC was controlled only by a sign-up sheet monitored by the Fire Chief's secretary. Sufficient police and fire personnel were present in the EOC to provide any needed backup to the secretary's access control.

Louisa County

The EMC was in charge of the Louisa County EOC. The Assistant Coordinator worked closely with the EMC and served more as a co-coordinator than an assistant.

Other elected officials present were the sheriff, who was heavily involved in the operation, the director, and four of eight members of the Board of Supervisors.

Briefings were more on a one-to-one basis with the team members, who had a need to know or implement an action. Later in the day, the EMC started briefing the whole staff as the situation progressed. Earlier, however, there were times when not everyone was made aware of the most recent development. In the future an announcement should be made to everyone as each development occurs and that a copy of each message be posted in the main room.

Radiological monitoring teams were alerted early and dispatched to field positions at 0920. Constant contact and monitoring was maintained throughout the exercise. This activity was very well coordinated and recorded.

Other response organizations were also alerted and responded rapidly as called upon.

The relocation center was advised as soon as evacuation was started. A call was made prior to the evacuation announcement to ascertain if the relocation facility was open and staffed, if it became necessary to evacuate.

Security for the EOC was simulated. We were advised in an actual emergency that a guard would be at the street door and one on the third floor entrance to the EOC.

Orange County

The EMC was in charge of emergency operations, as designated in the plan. In addition, the Director of Emergency Services was present for most of the exercise. EOC staff were kept informed of the situation by informal exchange of messages and information; the comparatively small number of EOC staff did not require formal briefings. Copies of the plan and SOPs were available and referred to as needed. As the situation required, calls were placed to activate the County radiological monitoring team, to activate the EAC, and to activate response organizations. Organizations represented at the EOC were County Emergency Services, State Emergency Services, Fire Department, Radiological Monitoring, amateur radio, Civil Air Patrol, and RADEF. Adjacent to the EOC was the sheriff's department. Other organizations represented at the EAC and kept in phone contact with the EOC were schools, health, welfare, transportation services, and Red Cross. Staff at these locations carried out their duties as called for, and displayed adequate knowledge of their responsibilities should they be called for.

Spotsylvania County

As specified in the plan, the County Coordinator was in charge of operations at the County EOC. He was assisted by the Deputy Coordinator. Elected officials were not present and did not participate in decision-making.

Copies of plans and written procedures were available for reference by the staff. Informal briefings were held periodically to update the staff on developments. Coordination of emergency activities appropriate to activating the radiological monitoring teams, activating the relocation center, and activating the evacuation bus routes was appropriate and timely. Coordination with other jurisdictions, however, was not as effective. For example, there was no coordination with Louisa County prior to the alert and notification of the public - Spotsylvania County did not learn of the Siren/EBS activation until about ten minutes afterward. Coordination and information exchange between the State and County EOCs was also not fully effective - the Coordinator experienced a 45 minute delay in confirming the evacuation recommendation.

After learning that several sirens failed, county officials, reluctant to send additional emergency workers into the contaminated area, decided to use the radiological monitoring teams to perform door-to-door route alerting, rather than sheriff's deputies as specified in the plan. This was a poor decision as it resulted in a limited and ineffective alerting effort, interrupted and delayed the monitoring effort, and greatly prolonged the exposure to the monitoring team.

The fear of unnecessary exposure was partly responsible for the 45 minute delay in upgrading the protective action recommendation from sheltering to evacuation. Some county officials were reluctant to implement this action, even though they lacked accident assessment expertise, and the plant was reporting a "worsening" prognosis at the time. At the persuasion of the State Bureau of Radiological ~~Health representative at the EOC, the county finally implemented the evacuation.~~ The State EOC had re-activated the EBS to announce the change in protective action to evacuation. For the County to independently ignore the evacuation in favor of remaining in the sheltering mode, could have caused considerable confusion among the public. The county's reluctance to implement the evacuation could have resulted in needless exposure to the public. This was a serious error in judgment.

The EOC was fully staffed, and the staff members displayed adequate training and knowledge. Security and access control, provided by the sheriff's department, were excellent.

V. PUBLIC ALERTING AND NOTIFICATION

State

Following EOF notification at 0840 hours of Site Emergency, EBS station was alerted as to possible upcoming EBS announcement. With the General Emergency and EOF recommended action of shelter, the Operations Officer conferred with Rad Health Officers, developed the EBS announcement, received concurrence of contact with the Rad Health Officer, then forwarded the announcement to the communications personnel for forwarding to the EBS station. Action Officers forwarded update of status to localities who then completed notification, by plan, to responsible facilities (schools, institutions, etc.).

Caroline County

Since the scenario did not bring the plume close to Caroline County, this EOC played no role in determining the need for or implementing public notification. Consequently, no actions toward public notification were taken at this EOC, nor were any instructions to the public formulated or distributed at this EOC.

Hanover County

Because the plume direction was not towards Hanover County there were no public alerting and notification actions to be taken by the County other than simulated activation of traffic access and control points and activation of the EAC serving Louisa as well as Hanover County.

Louisa County

The determination to sound the sirens and activate the EBS system was made by the Governor and the direction to initiate the siren system came from the State EOC around 1010. Louisa County serves as the initiating point for all of the sirens within the 10 mile EPZ. The sirens were activated from the dispatcher's office and route alerting teams, consisting of 5 deputy sheriffs, were sent into the area approximately 2 miles from the plant at about 1030. At this point in time the deputies simulated telling the public to stay inside, close windows and turn off their air conditioning. This process coincided with the EBS message sent out by the State. At a later point when evacuation was ordered, route alerting was again utilized to notify the public.

Orange County

The Orange County EOC did not play a role in determining the need for, or implementing, public notification, as siren and EBS activation are the responsibilities of other jurisdictions, and as no protective actions affected Orange County. Likewise, the County did not formulate or distribute instructions to the public. However, the State's simulated EBS messages and broadcast test EBS message were monitored in the EOC. Also, the sheriff has a supply of the public information brochures to supply to a store location in the EPZ where transients might stop.

Spotsylvania County

The Spotsylvania EOC played a role in determining the need for and implementing public notification, but this aspect of EOC operations was inadequate.

After the General Emergency was delcared from the EOF at 0935, and sirens were sounded at 1020 with an accompanying EBS message, the Spotsylvania EOC did not follow its Radiological Emergency Plan by sending out sheriff's deputies to conduct route alerting as a secondary system to the sirens.

When the sirens were activated, two did not sound - one at Rts. 606-612 and one at Rts. 601-713. When the EOC was notified that these sirens were not sounded the decision was made to have the County radiological monitoring teams conduct route alerting since they were in the area. The monitoring teams did not have any equipment to alert the public such as bullhorns, so route alerting had to be conducted by knocking on the door of homes in the area.

At 1120 when evacuation was ordered by the Governor no sirens in the area were sounded nor was route alerting conducted by Spotsylvania County. The only action taken to notify the public was that the PIO called two of the local radio stations to inform them of the change in protective action recommendations.

With the installation of the siren warning system, Spotsylvania County abandoned their systematic, area-wide route alerting plan. Emergency vehicles with public address systems could be dispatched to warn residents in areas where a siren fails to sound. However, there is no method to determine centrally where such failures occur. Therefore, officials would have to rely on chance field observations to determine if alert vehicles should be dispatched. This "catch-as-catch-can" procedure would be too time consuming to provide for the required "prompt notification." The county should restore a route alerting scheme as a backup to the siren system, particularly in the zones closest to the plant, and this should be demonstrated in future exercises.

VI. PUBLIC AND MEDIA RELATIONS

State

The primary media center for the State was the near-site center located at Mineral above the fire station, while the primary media center for the utility was at their corporate headquarters in Richmond. This was a departure from their usual practice of operating from a joint primary media center. Both locations were amply staffed with competent and knowledgable spokespersons from ~~the State and the utility who maintained a close contact with each other in both~~ locations. Their briefings were held jointly by speaker phones and allowed for questions and answers back and forth from each location. Initially the speaker phone system did not appear to be satisfactory but that problem was quickly solved with proper use of the microphones.

The physical setup at the Mineral near-site media center above the fire station is adequate, but as previously noted the work area for the State public affairs people, as well as other Federal and utility persons, should be more separated from the working press.

IBM telefax between the State EOC, utility media center in Richmond, and the Mineral media center provided rapid transmission of hard copy for reproduction and distribution to the media representatives.

Contact with the local information officers was by telephone and messages were read to them prior to release.

A rumor control capability was quickly established.

The focus of the media representatives at this exercise was at the near-site center with about fifteen individuals representing radio, television and newspapers and the UPI. Press interest at the corporate headquarters media center was minimal. This may only mean that the press covered in depth the meeting announcing the exercise held by the utility the week prior.

Each exercise has shown improvements in physical layout, knowledge, and ease in handling the media inquiries and getting messages to the public. I feel that there is a capability to respond adequately in an actual emergency.

Caroline County

The PIO displayed adequate training and knowledge at the Caroline County ECO. 24-hour staffing capability was demonstrated through double staffing of this position. No communications resources were provided for reporters, and no briefings were held. This was because no reporters appeared at this EOC. Radio and TV broadcasts were not monitored, but a capability for rumor control was demonstrated in conjunction with the sheriff's department.

Hanover County

The media center for Hanover County is located in a separate building from the central EOC operations. This separation of functions would allow for controlled media access with no interference to local EOC operations. Since the PIO for Hanover County did not participate in the exercise, no media or public relations activities were observed.

Louisa County

The public information process was totally simulated in Louisa County. At an early stage the Virginia EOC was notified by the County that they did not have their PIO available. They were informed that an individual would be sent from Richmond along with a telecopier. However, this process was not demonstrated, thus, leading to a total lack of play in this area.

Orange County

EOC staffing did not include an explicitly designated PIO. One local reporter, admitted to the EOC as an exercise courtesy, was briefed by the Emergency Services Coordinator. The information given was accurate and complete, however, there was no effort to coordinate the information with the media center. A portable radio in the EOC was kept tuned to the local station (also the EBS station) to monitor news reports and EBS broadcasts. The rumor control phone number was available to operating personnel, though no inquiries were received.

Spotsylvania County

The facilities provided for the PIO, including space, furniture, lighting, typewriters, etc., were very good. The entrance to the PIO room was adjacent to the security desk, thus providing media representatives access to the PIO, while preventing their entry to the rest of the EOC withoug passing through security - a very good arrangement. However,the observer was not aware of any news people visiting the EOC during the exercise.

Coordination between the county PIO and his counterpart at the State and other county EOCs was effective and timely. Commercial telephone provided the communications link. Coordination between the PIO and Operations was also excellent. The deputy coordinator was very conscientious in arranging for the PIO to receive copies of the message traffic, and in keeping the PIO informed of the latest developments throughout the exercise.

Rather than press briefings, the PIO provided telephone updates to the various local news media. The PIO's log shows 13 outgoing and 2 incoming calls. As these were not observed, and there is no hard copy, no conclusions can be drawn as to accuracy and completeness. The County PIO originated two press releases, which were coordinated with the media center.

Rumor control was established at the county, but the observer did not observe whether the telephone number was broadcast. Rumor control was not, but perhaps should have been, part of the PIO operation, which would provide the opportunity to share the PIO's very good access to information.

VII. ACCIDENT ASSESSMENT

State

Most assessment activities were performed at the EOF by combined State/facility efforts. Pre-arranged ARAC maps demonstrated whole body, inhalation, and ingestion computerized dose assessment potentials by graphic area. This may prove to be a good cross reference with field data, and is being explored further by the State for possible inclusion in operation plans.

Recommendations for action, made by the EOF, were reviewed and discussed by Rad Health and the Operations Officer; all recommendations were accepted. Ingestion pathway hazard decisions were not observed. Decisions were made on EPA and/or State plan guidelines.

Field Monitoring

The State monitoring teams were dispatched from the Mineral fire department. The team had an air sampler with its own power source and a backup unit that operates with power from a car battery. All equipment is routinely calibrated.

Only air samples were collected as the EOF did not request other types. The teams were competent and able to do other types of sampling (except for snow). The teams used county maps which made inter-county travel and road selection difficult. The teams read their dosimeter hourly (and were reminded to do so by the State per the recommendations made in previous exercise reports). Readings were relayed to the State BRH, who issued instructions relating to the readings.

Sampling handling procedures were adequate. Actual analysis was not demonstrated.

Bureau of Radiological Health

A. Dose Assessment

Dose assessments were made promptly by the Commonwealth of Virginia. Whole body dose assessments were based upon VEPCO projections and projections using COV monitoring data. Thyroid dose assessments were made based upon VEPCO projections. Results agreed well. Due to COV's multichannel analyzer being out of service, confirmatory analysis regarding iodine could not be performed locally. This did not result in any delay in the decision process. Limited plotting was performed, however; COV data was recorded in a manner

that it could be readily correlated to the pre-selected monitoring points. COV teams were effectively utilized in making confirmatory measurements regarding plume location. There was some delay in obtaining initial downwind measurements by COV due to the need to check monitoring datum reported to the EOC. This and other data reported by local monitoring teams from upwind locations proved erroneous. Confirmatory direct measurements were still available from the downwind sector before the need for formulation of protective action recommentations. VEPCO data was provided COV immediately upon COV arrival. Data reports from local jurisdictions were not received until requested by COV, were not received in the proper format and in certain cases were erroneous.

B. Protective Action Recommendations

Protective action recommendations were formulated at the EOF in a timely manner through effective coordination between VEPCO and COV.

Orange County

Dose projection and protective action recommendations were not a county responsibility.

Caroline County

Since the plume did not come at all close to Caroline County, no accident assessment activities were appropriate for this EOC. A monitoring team was dispatched to the Caroline County area within the 10-mile EPZ. Beyond that, however, no accident assessment actions were appropriate or taken. Likewise no protective action recommendations were appropriate or taken given this scenario.

Louisa County

The County sent out 4 monitoring teams, each with designated routes and monitoring points. One team was observed, taking approximately 1 1/2 hours to complete their task. They had the proper dosimetry and forms (along with KI, if necessary) and they were instructed to read their dosimeters periodically, which they did.

The team was somewhat concerned that they were not updated on the plant status or weather conditions, especially the wind direction. Although they appeared to have a good grasp of the operation of their monitoring equipment, it was stated that it has been 2 - 2 1/2 years since they last went through formalized training. They felt it is possible to forget more than they ever knew on the subject.

In an actual event, the monitoring teams would operate in protective clothing, including coveralls, boots, gloves, and a hood.

After they monitored at each designated location they would report their findings to the RADEF Officer at the County who would, in return, forward them to the State EOC and the EOF, when operational.

Spotsylvania County

Monitoring teams were mobilized and dispatched from the EOC at 0945 hours and arrived at their assigned locations at 1000 hours. Before deployment, the team was briefed on members' responsibilities, exposure control procedures, current plant conditions, equipment check procedures and current meteorological conditions. Participants indicated that there is a 24 hour paging system in operation with RACES as backup.

Five radiological monitoring teams were dispatched from the county EOC, two were observed. Each team was supplied with anti-contamination clothing, pocket dosimetry (CDV-742), and adequate detection equipment (I-700 and 2-715s). Adequate maps were on hand during reading activities, in addition to capable communications personnel for reporting radiation readings. Radiation monitoring logs and exposure records were maintained during monitoring activities. Each monitor took 30 minute readings during the exercise.

Members demonstrated the use of the CDV-700 low range beta gamma survey meter and were also equipped with the CDV-715 high range gamma meter. A charger was also available.

Air, soil and vegetation sampling are responsibilities/duties conducted by the State radiation health unit. Rad Health also does milk and water sampling.

Monitoring teams were not provided with any additional equipment. According to participants, an operational check was conducted on all survey equipment and team members checked their dosimetry at a pre-briefing conducted by county RADEF Officer. Due dates on calibration stickers indicated that instrumentation was within two year calibration requirement.

Monitoring team members activated the equipment, performed battery check in addition to demonstrating the operation of the CDV-700 survey meter with a radioactive source. Members were provided with Monitoring Handbook, SM5.1 April 1981. Team members also demonstrated the correct method technique when using the CDV-700 while simulating monitoring of ground readings only. All participants were aware that the region was being monitored and had no difficulty following maps and monitoring points.

Monitoring team was provided with one complete set of protective equipment. Two additional sets should be on hand for immediate use by other members. KI was not available and procedures specifying its use were not known. Participants used CDV-742 pocket dosimeters and know how often to read and record any readings. However, they were not familiar with the maximum dose allowed without authorization. Participants know where to go for decontamination, but did not know when they should go and what to do once they arrived. Team members stated that the local rescue squad would be responsible for handling any contaminated individuals.

VIII. ACTIONS TO PROTECT THE PUBLIC

State

State police representation was partially played, with 6 field players, in place of the planned-for 26 men. Road blocks had been established at all specified

locations, and were reported as promptly ordered. Later traffic control was simulated.

Caroline County

This EOC was not immediately involved in actions to protect the public. No traffic control points were ordered or set up. The reception center was briefly activated in a timely fashion to demonstrate this capability. EOC staff had information on the locations of dairy farms, food processing plants, and water supply intake points. Protective action decisions and the evacuation of transit-dependent individuals were not appropriate to this scenario. EOC staff was aware of the location of the mobility impaired individuals in the area, although this information was not in written form. They were aware of the mobility-impaired individuals' special needs, although this information was also not written down. Arrangements had been made for the transportation of these individuals. No evacuation of school children was demonstrated by this local EOC. Such evacuation appears highly unlikely, since the school for these children is also the relocation center for Caroline County.

Hanover County

Activation of traffic control points was promptly simulated by the county sheriff's EOC representative at 0940. The EAC was also activated in a timely manner. No ingestion pathway protection actions were needed or implemented.

Although there was no need for evacuation of transit-dependent individuals, County EOC representatives produced lists of such individuals and advised the observer that the County RADEF officer knows the mobility-status of all County residents in the 10-mile EPZ as he is the letter carrier for the area. Appropriate arrangements for transportation of these persons are spelled out in the County plan.

The EAC at Patrick Henry High School was activated at the proper time and was properly staffed. This facility also serves as the EAC for Louisa County.

Louisa County

Five County Deputy Sheriffs and five State Police were activated for traffic and access control points as well as related activities, such as route alerting. According to the Sheriff, police personnel are activated at a very early stage (Alert) in order that they are on the scene should events at the plant deteriorate in a rapid manner.

An access control post was established at the junction of Route 652 and Route 700 (the access road to the plant) at about 0820. The post was manned by two VEPCO security officers and a sheriff's deputy. The deputy was actually stopping traffic and explaining that an emergency exercise was underway. It appeared that only plant employees and other authorized personnel were allowed access to Route 700.

A two-mile area of Louisa County was impacted by the implementation of protective actions; all involved roads were blocked. Some of the State Police that were

utilized were not fully briefed on evacuation routes or the location of the reception center in Hanover County because of the fact that it was only an exercise. In an actual incident all individuals involved with access control would be supplied with the necessary maps.

Louisa County conducted a field demonstration of bus evacuation. The County has designated a series of fixed bus routes serving each evacuation zone, with specific buses and drivers assigned to each route. The school transportation supervisor was notified at the site emergency declaration, arriving at the garage about 0825. He had several drivers standing by at the garage since about 0730, a bit earlier than called for in the scenario. For the exercise, two radio-equipped buses were dispatched to run the two actual routes closest to the plant. Maps of the routes were provided to the drivers and a master route map was in the bus garage. However, dosimetry was not available and should be provided.

Two buses ran designated routes with a total of 10 buses available; because of the limited area involved, as well as the small amount of people (about 100), this was more than enough. The simulated evacuation took approximately an hour.

Although there were no mobility-impaired individuals located within 2 miles of North Anna, the County does have a listing, maintained by the Welfare Department, available to them. Currently, ambulances would be utilized, but a special bus will be a new resource by August.

Orange County

Four traffic control points cover the routes into the Orange County portion of the EPZ. Activation of these points was simulated. State Police have the primary responsibility for manning the points, supplemented by County personnel. The EAC was ordered to be activated in a timely fashion. Only a skeletal EAC staff was activated, as Orange County had fully exercised evacuation in the previous exercise, but all required response organizations were represented to demonstrate capability, knowledge of procedures, and availability of resources. The Sheriff's Department has contacted each family in the Orange County portion of the EPZ to identify those with special transportation requirements. A list of residents, their locations, and their special needs is kept by the Sheriff. There are no schools in the affected area.

Implementation of ingestion pathway protective actions was not observed.

Spotsylvania County

During the exercise traffic control points were implemented. Three TCPs were implemented by the State Police and County Sheriff's Office at 1035. At 1120 these TCPs were moved back and expanded to 5 after an evacuation was declared for Zone 9 in Spotsylvania County.

All roads into the evacuation area from the northern part of the County were blocked, but entering from east and west from Caroline and Hanover Counties was possible.

The Spotsylvania County Sheriff and State Police conducted a limited demonstration of access and tarffic control, deploying three posts at about 1030 hours. These posts were moved and several additional posts established later, as the

scenario advanced. The posts were moved and the Federal observer was unaware of the new locations. Several officers involved in the demonstration were diverted from their posts to pursue a stolen car. Consequently, none of the traffic or access control posts were observed. Based on discussions after the observer's return to the EOC, the Sheriff and State Police representative did coordinate their respective agencies' involvement in the demonstration and the location of posts to be manned. However, no list or map was developed of all access and traffic control posts (actual and simulated). Although the State Police representative indicated that some of the required access control posts would have been set up in adjoining counties, there is no evidence that specific locations were coordinated with Louisa and Orange Counties. To insure that no points of access into the affected area are left unguarded, such coordination and orderly planning is imperative and will be reviewed in future exercises.

The EAC was open and ready at 1010, a full hour before any evacuation was recommended by the Governor.

The County does not have responsibility for ingestion pathway protective actions.

Spotsylvania County conducted a limited field demonstration of the evacuation of residents without private transportation. Two school buses and drivers were placed on standby at the County garage at about 0900. Portable radios were installed in each bus by RACES personnel. Neither driver had a route map, but had been given verbal instructions in advance by the transportation supervisor. Neither driver had any dosimetry. The buses were dispatched promptly upon the order to evacuate, departing at 1200 hours. One driver had received a last minute verbal change in route by telephone. The Federal observer followed one bus through its route, which was essentially completed at 1245. Since the bus traveled at 40-45 mph and made no stops, travel time in a real emergency would be considerably longer. The demonstration was useful as a training exercise, but was too limited to prove capabilities.

No evacuation of transit-dependent individuals was demonstrated in Spotsylvania County. The EMC stated that he had received only three cards from individuals stating that they would need transportation assistance in case of a radiological emergency. The EMC left those cards in his office and no effort was made to retrieve the cards to determine if any of those individuals were in the evacuation zones or take shelter areas. The social services department also has a listing of indigent persons in the area who might need transportation assistance, again this list was not utilized during the exercise. Social Services indicated that there were no homes for the aged or children's homes in the Spotsylvania portion of the plume EPZ.

The County has not designated fixed routes for evacuation buses. Instead, the County would rely upon the school transportation supervisor's knowledge of the area and regular school bus route assignments to identify bus routes as the accident unfolds. School bus routes are designed with a purpose entirely different from the orderly and expeditious evacuation of the general public from a specific area of radiological hazard. Last minute, ad hoc adjustments of such routes under the pressures of a rapidly unfolding nuclear accident, even by someone familiar with the area, could lead to gaps in coverage. Since evacuation zones are clearly defined and would form the basis for any evacuation

order, the County should develop a series of fixed routes specifically designed to cover each evacuation zone. Buses and drivers (including backup drivers) should be assigned to each route and provided with route maps. The general public should then be advised of the procedures for picking up the buses. It is also suggested that the buses be marked in some way and the drivers provided with dosimetry. These procedures should be demonstrated in future exercises.

The relocation center was serviced by five organizations: the Spotsylvania Social Services Department which handled registration, decontamination, and general services to evacuees; the Red Cross which would provide emergency supplies, food and equipment; Spotsylvania Shelter Manager who handled the management of the facility; a State Rad Health Officer who was in charge of decontamination by the Social Services Department; and a member of RACES to maintain radio contact with the Spotsylvania EOC.

The EAC was activated at 1010. All staff received their initial notification via the EOC during the Alert stage. A full complement of staff to operate the EAC was not involved. Approximately 13 staff were at the EAC, but the observer was informed that a full compliment of staff consisted of 50. The staff showed good training and knowledge. The shelter director indicated that he had a 24-hour capability with two 12 hour shifts.

The Courtland High School is an excellent congregate care center. The facility has enough capacity to handle 1200 evacuees according to the shelter manager. Cots and blankets were not at the site, but would be supplied by the Red Cross. All facilities appeared adequate for the number of evacuees. If the EAC reached its capacity, there are other schools in the area which could be converted to a shelter area. By 1030 RACES had set up for communication to the Spotsylvania EOC.

All evacuees entering the facility would be checked for contamination before entering the facility. A standard body monitoring check was done with a Geiger counter device. A plastic bag should be used to cover the probe to prevent contamination of the device and that the person handling the monitoring wear plastic gloves for his or her protection.

IX. HEALTH, MEDICAL AND EXPOSURE CONTROL

State

The Bureau of Radiation Health made the appropriate recommendations to emergency workers. The State Plan was followed concerning dosimetry and KI. The Counties were instructed to insure that emergency workers read and recorded dosimeter readings in accordance with the Plan. This was a noted improvement over the last exercise.

Caroline County

The EOC is located 10 miles beyond the 10-mile EPZ, so availability and use of dosimetry equipment for EOC personnel was not appropriate. Use of dosimetry equipment was demonstrated for emergency workers, however. As KI was not available no recommendations to administer it were made. Radiological monitoring staff was aware of decontamination procedures and measures to protect EOC staff against exposure.

The following dosimetry equipment was available for emergency workers: low, mid- and high-range direct read dosimeters, chargers for the dosimeters, and record keeping cards. Permanent record dosimeters and KI were not available, however. EOC staff were aware of the decontamination procedures and the proper distribution of dosimetry equipment. Since the plume did not approach the vicinity of Caroline County, little opportunity was available to demonstrate capabilities in many of these areas.

Hanover County

The Hanover County RADEF Officer is responsible for distributing the dosimetry equipment to EOC personnel and emergency workers. An adequate number of low, medium and high range dosimeters are available at the EOC and at established distribution points throughout the County. The proper use of this equipment was demonstrated only at the EOC.

The Health Department in Hanover County is responsible for the distribtuion of KI. The County Health Department official is knowledgable in the proper procedures for the distribution of KI, but the levels of release of the contaminant in the exercise did not warrant the demonstration of these procedures. No recommendations were made to administer KI.

Equipment is available at the EOC to establish a decontamination center for use by emergency workers if necessary.

Louisa County

The County has adequate supplies of low-range (CDV-138) and high range (CDV-742) dosimeters on-hand for all emergency workers, along with potassium iodide, chargers for dosimeters, and record forms. However, there are no permanent record dosimeters available. Fire departments and ambulance services maintain this equipment at their particular locations, while other departments (such as the County Sheriff) receive their equipment directly from the EOC. All dosimetry was zeroed properly and the emergency workers were aware that they should read them periodically.

The RADEF Officer was aware that there is a maximum dose allowed without authorization and would rely on that information from either the EOC or EOF, if operational. No instructions came from the State to issue KI. Monitoring and, if needed, decontamination of emergency workers would take place at the EAC in Hanover County.

Orange County

Radiological exposure control for EOC staff was not required, as the EOC is outside the plume EPZ.

For emergency workers (the radiological monitoring team) protective clothing and masks, low and high-range dosimetry, and monitoring equipment were carried by the team chief in his car from their normal storage location, the Mine Run fire house, to the EOC and from there to the field. Additional monitoring kits (CDV-777 and CDV 777-2) and new low-range dosimetry are kept at the EOC and other

locations. The County has 15 of the new low-range dosimeters; no permanent record devices were observed. Additional dosimetry is desirable. Use of the dosimetry (reading, recording and reporting of doses) was not observed. Distribution of Potassium Iodide was not observed; its use was not called for in this exercise. Emergency worker decontamination procedures were not observed.

Spotsylvania County

Dosimetry, record forms, and protective clothing were adequately distributed to and used by emergency workers. The County's decision to administer KI to both emergency workers and general public who had been in the evacuation zone was based on the Bureau of Radiological Health's recommendations, and appears appropriate.

An emergency worker decontamination station was not set up and demonstrated. This should be performed in future exercises.

X. RECOVERY AND REENTRY OPERATIONS

Recovery and reentry operations were not demonstrated in this exercise.

XI. RELEVANCE OF THE EXERCISE EXPERIENCE

Caroline County

The scenario was inadequate to test much of the capabilities of this local EOC, since it did not call for the plume to come at all close to Caroline County or adjacent areas. Consequently many EOC staff participants were unable to meaningfully participate in the exercise. This was not the case, however, for the communications staff or for the EOC leadership. The scenario did appear realistic, but not adequate to fully test the capabilities of this EOC staff.

Hanover County

Everyone involved in the exercise was knowledgable concerning the information contained in their response plan, were well versed on their roles and performed them in a professional manner.

To the limited extent permitted by the scenario the exercise demonstrated that Hanover County officials could protect their citizens in the event of an accident at the North Anna Power Station.

Louisa County

Although all County responders certainly displayed a high degree of enthusiasm and ability, the scenario and degree of participation resulting from it were disappointing. The small area affected by the release along with a liberal use of simulation resulted in less than a full test of the County's personnel and resources. Even some of the County people stated that the best way to achieve realistic and valuable training is to provide for as many response problems as possible. At the least the controllers could have inserted messages to provide various issues to be addressed.

Orange County

The scenario was adequate to test Orange County's emergency response, given that they had fully played evacuation in the previous exercise. The response actions of the key County agencies were tested realistically.

Spotsylvania County

The scenario was adequate to test basic capability, despite lacking special evacuation and medical support problems.

RECOMMENDATIONS

State

1. Consider placing staff positions on shift schedule roster so that both names and duties are indicated.

Hanover County

2. To improve Hanover County's communications capability a drop off line to the Insta-phone into the EOC should be installed. This will insure that nothing is lost in the relay of traffic between the EOF, EOC and communications/dispatcher office. In addition it will free the commercial lines for other traffic.

Caroline County

3. The elected officials should be present and actively involved in decision-making in future exercises.

4. The periodic briefings to update EOC staff on the situation should be held in future exercises.

5. Future scenarios should provide enough activity to allow meaningful participation by and adequately test the capabilities of the EOC staff.

Orange County

6. Orange County EOC should expedite notifying key personnel at the Alert stage, and assume taking responsibility for Insta-phone messages.

Louisa County

7. Louisa County should consider using either the CAP or RACES as means of communications between the radiological teams and the EOCs. Alternate each exercise using one for the primary and the other for backup of other communications. This will ensure them a means of checking out their equipment and procedures.

8. There are currently no permanent record dosimeters available for County emergency workers. Film badges or TLDs, in the necessary numbers, should be obtained as soon as possible, in order to assure a history of exposure (or lack of it) for workers involved in responding to any incidents at the North Anna facility.

9. Refresher training should be given to all radiation monitors to assure they will continue to remain totally familiar with all the various aspects of this critical function.

10. The County should continue to update their monitoring teams and any individuals operating in the field to reassure them that they are not in, or heading towards, a hazardous area.

Spotsylvania County

11. The capability for a shift change should be demosntrated in future exercises; the Coordinator should maintain a two-shift duty roster for all responding agencies.

12. Elected officials should participate in future exercises.

13. The County officials should recognize the State's accident assessment capability, and implement the protective actions promptly and without "second guessing," in order to establish a uniform and effective response.

14. As there is no capability to quickly and accurately identify siren failures, route alerting should be performed as a matter of course, to provide a secondary means of notifying the public. As specified in the plan, Sheriff's deputies should be used to perform this duty, leaving other emergency workers free to complete their assignments without interruption.

15. The County should consider placing rumor control within the PIO operation, to provide the opportunity to share the PIO's access to information.

COMMONWEALTH of VIRGINIA

State Office of Emergency and Energy Services

H. KIM ANDERSON
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September 13, 1983

Mr. Thomas M. Sherlock
Regional Director
Federal Emergency Management Agency
Region III
Sixth and Walnut Streets
Philadelphia, Pennsylvania 19106

Dear Mr. Sherlock:

Enclosed are our comments to the FEMA Region III Assessment of the North Anna Nuclear Power Station Exercise which was conducted on June 18, 1983.

Our next full-scale exercise at North Anna is tentatively scheduled for June 1984. A plant scenario will be developed requiring responses by off-site authorities either between 6:00 p.m. and midnight or between midnight and 6:00 a.m. It will be designed to meet the NUREG 0654 requirements for such an exercise to be held once every six years.

Sincerely,

H. Kim Anderson

HKA/GOU/lgc

Enclosure

SUBJECT: FEMA, Region III Assessment of VOPEX 1-83 (NAPS)

FEMA Recommendation	OEES Comment
1. (State) Consider placing staff positions on shift schedule roster so that both names and duties are indicated.	1. Agree. However, staffs are cross-trained and, therefore, in an actual emergency or when the designated person is unavailable, a position may be filled with an individual who is normally assigned to other duties.
2. To improve Hanover County's communication capability, a drop off line to the Insta-phone into the EOC should be installed. This will insure that nothing is lost in the relay of traffic between the EOF, EOC and communications/dispatcher office. In addition, it will free the commercial lines for other traffic.	2. Agree. OEES' Director of Operations advised. This Insta-phone extension will be installed as soon as possible.
3. (Caroline County) The elected officials should be present and actively involved in decision-making in future exercises.	3. This is always desirable but not practical. The County Board of Supervisors is the County governing body. It consists of the chief elected officials. Other elected officials include the Sheriff, Treasurer, Commissioner of the Revenue and Commonwealth Attorney. State law requires local governing bodies to designate a Director of Emergency Services whose primary mission in an emergency is to make decisions in behalf of the representative body for the protection of health, safety and welfare of the citizens. In many instances, this person is a member of the board but may be the County Administrator. We agree that at least the Director of Emergency Services should be actively involved in the exercises and have taken steps to urge such participation.
4. (Caroline County) The periodic briefings to update EOC staff on the situation should be held in future exercises.	4. Agree. Caroline County Coordinator advised.

FEMA Recommendation	OEES Comment
5. (Caroline County) Future scenarios should provide enough activity to allow meaningful participation by and adequately test the capacilities of the EOC staff.	5. Agree. The scenario for the next full-scale exercise will be developed with these objectives in mind.
6. Orange County EOC should expedite notifying key personnel at the Alert stage, and assume taking responsibility for Insta-phone messages.	6. Agree. Orange County notified.
7. Louisa County should consider using either the CAP or RACES as a means of communications between the radiological teams and the EOCs. Alternate each exercise using one for the primary and the other for backup of other communications. This will ensure them a means of checking out their equipment and procedures.	7. Agree. Future scenarios will be developed to effect sufficient play for CAP and RACES to test their equipment and procedures.
8. (Louisa County) There are currently no permanent record dosimeters available for County emergency workers. Film badges or TLDs, in the necessary numbers, should be obtained as soon as possible, in order to assure a history of exposure (or lack of it) for workers involved in responding to any incidents at the North Anna facility.	8. Film badges have been issued to all local governments within the 10-mile radius of both the North Anna Power Station (NAPS) and the Surry Power Station (SPS) areas. In addition, all State agencies which have responsibilities in these areas have been issued a supply of these badges. Distribution was completed in August 1983.

FEMA Recommendation	OEES Comment
9. (Louisa County) Refresher training should be given to all radiation monitors to assure they will continue to remain totally familiar with all the various aspects of this critical function.	9. Agree. Louisa County Coordinator advised. Radiological courses and training are offered periodically through the OEES Training Office. Additional training in radiation monitoring is offered by the OEES and the Bureau of Radiological Health at least annually to each political subdivision within the plume exposure Emergency Planning Zone. Some jurisdictions sponsor their own radiation training programs.
10. (Louisa County) The County should continue to update their monitoring teams and any individuals operating in the field to reassure them that they are not in, or heading towards, a hazardous area.	10. Agree. Louisa County Coordinator advised.
11. (Spotsylvania County) The capability for a shift change should be demonstrated in future exercises; the coordinator should maintain a two-shift duty roster for all responding agencies.	11. Agree. Spotsylvania County Coordinator advised.
12. (Spotsylvania County) Elected officials should participate in future exercises.	12. Spotsylvania County Coordinator advised. See our comment to Recommendation No. 3.
13. (Spotsylvania County) The County officials should recognize the State's accident assessment capability, and implement the protective actions promptly and without "second guessing", in order to establish a uniform and effective response.	13. The State Bureau of Radiological Health provides a Radiological Emergency Response Team (RERT) to advise and assist the affected local government in providing gross assessments of radiological data reported from the field and to control radiological exposure for both emergency workers and evacuees. Each team consists of a Radiological Liaison Officer and a Radiological Exposure Control

FEMA Recommendation	OEES Comment
	Officer. It is of paramount importance that when advise is sought from them that their response be based on a single, joint decision. Failure to respond in this manner may cause local government officials to take emergency actions based on their best judgement of the situation even though such actions may be unnecessary. Spotsylvania County Coordinator and BRH advised.
14. (Spotsylvania County) As there is no capability to quickly and accurately identify siren failures, route alerting should be performed as a matter of course, to provide a secondary means of notifying the public. As specified in the plan, Sheriff's deputies should be used to perform this duty, leaving other emergency workers free to complete their assignments without interruption.	14. Agree. Spotsylvania County Coordinator advised.
15. (Spotsylvania County) The County should consider placing rumor control within the PIO operation, to provide the opportunity to share the PIO's access to information.	15. Agree. A rumor control telephone number should be established and announced to the public not later than during the Alert stage. Spotsylvania County Coordinator advised.