



UNITED STATES  
NUCLEAR REGULATORY COMMISSION  
REGION II  
101 MARIETTA STREET, N.W.  
ATLANTA, GEORGIA 30323

OCT 17 1985

Report Nos.: 50-62/85-02

Licensee: University of Virginia  
Charlottesville, VA 22901

Docket Nos.: 50-62 (University of VA Test  
Reactor)

License No.: R-66

Facility Name: University of Virginia

Inspection Conducted: August 19-23, 1985

Inspectors: *R. R. Marston* 10-4-85  
R. R. Marston Date Signed

Accompanying Personnel: R. T. Hogan, IE HQS, M. R. Poston-Brown, RII

Approved by: *A. L. Cunningham* 10-4-85  
A. L. Cunningham, Acting Section Chief Date Signed  
Division of Radiation Safety and Safeguards

SUMMARY

Scope: This routine, announced inspection involved 84 inspector-hours onsite and 21 hours offsite in the areas of an emergency preparedness appraisal.

Results: Of the areas inspected no violations or deviations were identified.

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## INTRODUCTION

The purpose of this appraisal was to perform a comprehensive evaluation of the licensee's emergency preparedness program. This appraisal included an evaluation of the adequacy and effectiveness of areas for which explicit regulatory requirements may not currently exist.

The appraisal scope and findings were summarized on August 23, 1985, with those persons indicated in Section 4.0 of this report.

### 1.0 EMERGENCY ORGANIZATION

#### 1.1 ONSITE ORGANIZATION

##### 1.1.1 Functional Areas

This area was reviewed with respect to the requirements of 10 CFR 50, Appendix E, IV.A.2, and criteria of ANSI/ANS 15.16-1982.

- a. The inspector reviewed the Emergency Plan (EP) and the Emergency Plan Implementing Procedures (EPIPs), and discussed the emergency organization with licensee representatives. The inspector verified that the licensee identified the functional areas of Director of Emergency Operations, Coordinator of Emergency Preparedness, Public Information Liaison, Radiological Assessment Coordinator, individual authorized to terminate emergency and initiate recovery, individual authorized to permit reentry, and individual authorized to permit volunteer workers to incur radiation exposure in excess of normal occupational limits. In addition, the licensee defined the specific assignments, responsibilities, and authorities in the onsite emergency organization. These identifications and definitions were found in Section 3.2 of the Emergency Plan (EP).

Based on the above findings, this portion of the licensee's program appeared to be adequate.

- b. The inspector determined through discussion with licensee representatives and review of the EP, Section 3.1, that a line of succession was provided for the following positions: Director of Emergency Operations; Coordinator of Emergency Preparedness; Public Information Liaison (included in Emergency Director's responsibilities); and Radiological Assessment Coordinator.

Based on the above findings, this portion of the licensee's program appeared to be adequate.

- c. The inspector determined through discussion with licensee personnel that all members of the onsite emergency organization had at least one year of experience appropriate to their designated emergency assignments.

Based on the above findings, this portion of the licensee's program appeared to be adequate.

- d. Interviews with seven members of the onsite emergency organization showed that they understood the interfaces between and among the onsite functional areas. A licensee representative stated that an organizational chart illustrating the interfaces was not made because of the small size and simple nature of the organization.

Based on the above findings, this portion of the licensee's program appeared to be adequate.

- e. The inspector determined that management support appeared to be adequate. The Reactor Facility Director stated that he (and in his absence, his alternate) had the authority to commit the Reactor Account and certain State money to control an emergency.

Based on the above findings, this portion of the licensee's program appeared to be adequate.

- f. The Reactor Facility Director stated that he felt the greatest length of time an emergency would last would be two days, and that, if necessary, the staff could be split to cover two - 12 hour shifts per day.

Based on the above findings, this portion of the licensee's program appeared to be adequate.

#### 1.1.2 Interviews and Walk-Throughs

The inspector conducted interviews and walk-throughs with eight members of the onsite organization. They all appeared to understand their responsibilities and authorities for their functional areas of responsibility and felt that their training was adequate.

Based on the above findings, this portion of the licensee's program appeared to be adequate.

### 1.2 OFFSITE SUPPORT

This area was reviewed with respect to the requirements of 10 CFR 50, Appendix E, and criteria of ANSI/ANS 15.16-1982.

#### 1.2.1 Fire Protection

The inspector interviewed a member of the Charlottesville Fire Department and noted that fire protection at the Reactor Facility was provided as requested.

The University of Virginia (UVA) Environmental Health and Safety Department has provided training to all members of the fire department which included the topics

of instrumentation, UVA and UVA reactor emergency plans, and a tour of the reactor facility.

Based on the above findings, this portion of the licensee's program appeared to be adequate.

#### 1.2.2 Police Protection

The inspector interviewed a member of the University of Virginia Police Department. The UVA Police Department is fully deputized by the city and county and would provide police protection as requested.

The UVA Health and Safety Department has provided training to some members of the UVA Police Department which included expected responder action. The training did not include a facility tour to familiarize the police with facility layout and access procedures.

The Charlottesville Police Department and the Albemarle County Police Department were available for additional police assistance if necessary. Although a Mutual Aid Agreement has been signed between the University and both the City of Charlottesville and the County of Albemarle outlining such assistance, the shift commander for the Charlottesville police stated that the Charlottesville police never received training for an emergency at the UVA reactor, nor was he aware of the specific support that would be expected. The Albemarle County police understood what emergency response would be requested but had not received training either.

Charlottesville, Albemarle County and UVA participate in a Joint Dispatch Center for emergency services in the surrounding area. All local police departments, fire departments and rescue squads for the three entities are serviced by the Joint Dispatch Center through one emergency telephone number. One out of fifteen dispatchers for the Joint Dispatch Center received training in the offsite emergency response which would be needed for an emergency at the UVA reactor facility.

Although the primary offsite support for police protection had received adequate training, the additional police support groups and the dispatchers at the Joint Dispatch Center which would receive the emergency call would benefit from some training in the emergency response expected from each police department.

Based on the above findings, this portion of the licensee's program appeared to be adequate; however, the following matter should be considered for improvement:

Developing a training program for dispatchers and Charlottesville and Albemarle County Police departments sufficient to provide the ability to perform their expected emergency function (50-062/85-02-01).

#### 1.2.3 Ambulance Services

The inspector interviewed a duty officer for the Charlottesville-Albemarle Rescue Squad and noted that the rescue squad would provide onsite medical aid and

transportation for contaminated injured personnel to the University of Virginia Medical Center.

The UVA Environmental Health and Safety staff provided training for all rescue squad personnel including expected responder action, UVA reactor emergency plan and instrumentation. The training did not include a facility tour to familiarize the rescue squad with facility layout and access procedures. Some rescue squad members felt there was insufficient training and were unaware of the individual who would direct emergency operations at the reactor facility. The rescue squad participated adequately in the biennial drills conducted by the licensee.

Based on the above findings, this portion of the licensee's program appeared to be adequate; however, the following matter should be considered for improvement:

Upgrading the training for rescue squad members to assure the ability to perform their expected functions. Include a description of UVA reactor emergency organization (50-062/85-02-02).

Including a tour of the reactor facility in the training program for all offsite personnel who might be required to enter the facility. The tour should familiarize personnel with the facility layout and access procedures (50-062/85-02-03).

#### 1.2.4 Hospital and Medical Support Services

The UVA Medical Center provided medical facilities to the reactor facility. These facilities operated under a Radiation Emergency Plan prepared by the Medical Center for response to personnel injuries with or without radiological consequences. This plan included procedures for managing persons injured in any accident which involves radioactive contamination or external exposure. The medical facilities were equipped for treatment and decontamination of patients. A discussion with the Medical Center management indicated that they have an in-depth knowledge and understanding of the functional areas in which they would be expected to perform.

Emergency room staff received training by the UVA Environmental Health and Safety staff including in-hospital accident response and the UVA Medical Center Radiation Emergency Plan. The Medical Center has participated adequately in the biennial drills conducted by the licensee. In the most recent drill, some emergency room staff expressed concern over participation in a real emergency. As a result of these comments, the licensee plans to upgrade the training for emergency room staff.

Additional services and support are also provided by the Oak Ridge Region Coordinating Office of Radiological Emergency Assistance, as requested.

Based on the above findings, this portion of the licensee's program appeared to be adequate.

### 1.2.5 Additional Support

The UVA Radiation Safety Office of the Environmental Health and Safety Department provided training of onsite and offsite emergency response personnel. During an emergency, the office would provide personnel and equipment if needed for assessment and protective actions. Interviews with personnel from the Radiation Safety Office indicated that they have been involved with the development and maintenance of emergency preparedness at the reactor facility and, therefore, are qualified to perform their expected functions in an emergency.

The Virginia Office of Emergency Services provided assistance as stated in the Commonwealth of Virginia Emergency Operations Plan. The inspector held a discussion with the Emergency Services Coordinator for the Charlottesville-Albemarle area and determined that the Virginia Office of Emergency Services would provide support as needed during an emergency at the reactor facility.

Based on the above findings, this portion of the licensee's program appeared to be adequate.

## 2.1 NOTIFICATION AND ACTIVATION OF EMERGENCY ORGANIZATION

This area was inspected under the requirements of 10 CFR 50, Appendix E, and the criteria of ANSI 15.16-1982.

### 2.1.1 Procedures

The inspector reviewed Section 7.1 of the emergency plan, and implementing procedures EPIP-6, Notification of Emergency Response Personnel, EPIP-7, Notification of State and Local Governments, and EPIP-8, Notification of NRC. The procedures and plan appeared to be adequate; however, inconsistencies were noted between the plan and procedures regarding the person responsible for notification. Notification message forms were provided with each EPIP as an attachment. Copies of these attachments were available to State and local governments, the NRC, support agencies and other necessary agencies. These notification forms included points of contact and telephone numbers as well as information for the user to pass on to the support group or government agency.

Implementation of off hour notifications relied on the presence of a student or staff member in the building, and his ability to locate the posted copies of EPIP-6 to make the Emergency Response Personnel notifications. EPIP-6 can also be used by the University police in the event that the intrusion or fire alarms are actuated. The plan specified that EPIP-6 will be posted in the vicinity of the phones used to make notifications. However, a check of a few phones revealed the EPIP was located on the nearest available bulletin board, and that no EPIP was available in the secretary's office.

Based on the above findings, this portion of the licensee's program appeared to be adequate; however, the following item should be considered for improvement:



Making changes in EIPs-6, -7, and -8 to ensure agreement with the plan regarding the responsibility for notification (50-062/85-02-04).

### 2.1.2 Communications

Communications were reviewed in Section 8.4 of the Emergency Plan. The primary methods of notification consisted of a PA system (for duty hours) and phones (for off-duty hours, and to make notifications). The Emergency Response Personnel rosters were posted on bulletin boards throughout the building. The licensee has not checked the status of emergency action telephone numbers to ensure that they are updated and correct. All the EIPs used to make notifications were only available to the emergency response staff. However, extra copies of the notification forms were stored in the emergency supply cabinet.

The licensee had a 2-way radio designated for use to communicate with the University Police. The radio is considered to be backup to the telephones. Three walkie talkies were also available onsite for the Emergency Director to use for communicating with site monitoring teams. None of these radios were kept in the Emergency Support Center, rather, they were distributed among the staff. The 2-way radio was tested every 6 months for operability. A period for testing the walkie talkies has not been established.

Various types of alarms are used by UVA. The fire and intrusion alarms are actuated in the University Police Department's facility. A low level water alarm and radiation alarms are also used onsite. These alarms are discussed in Section 8.2 of the emergency plan. The licensee has not committed to testing these alarms on a specified schedule. However, the evacuation alarm is scheduled for testing once every six months.

Based on the above findings, this part of the program appeared to be adequate; however, the following items should be considered for improvement:

Moving "Emergency Actions" rosters closer to telephones (50-062/85-02-05).

- Providing documentation and schedules for ensuring that the Emergency Action duty roster telephone numbers are current (50-62/85-02-06).
- Assessing the need for moving the radios from an office to the primary Emergency Support Center (50-62/85-02-07).

## 2.2 CLASSIFICATION AND ASSESSMENT

### 2.2.1 Identification and Classification

This area of the licensee's program was inspected with respect to the requirements of 10 CFR 50, Appendix E, and the criteria of ANSI/ANS 15.16-1982.

#### 2.2.1.1 Procedures

The inspector reviewed the licensee's implementing procedures. EIP-1, Emergency Director Controlling Procedures, Attachment 1, described the EALs, which appeared



to be consistent with the Tables of ANSI/ANS 15.16-1982. The EALs did not include levels for thyroid doses; however, licensee representatives stated that iodines were not considered a significant threat for this reactor.

The EALs in EPIP-1 were generally based on information readily available to the responsible individuals. Also where practicable, they related to facility parameters, effluent release levels, and equipment conditions for each emergency class.

The licensee also provided EIPs (EPIP-2 through EPIP-5) for implementing emergency actions for each emergency classification. EPIP-9, Radiological Surveys, and EPIP-10, Assessment Actions, provided for post accident surveys and sampling.

The EIPs did not specifically address actions to be taken for radiological emergencies occurring after hours; however, licensee representatives stated that audible alarms annunciated for loss of pool water or high radiation levels. These alarms could be heard by the routine security patrols or anyone else present. It was noted that there were some inconsistencies between the plan and EIPs. Specific airborne or waterborne concentrations for a fixed MPC value differed between the plan and the EAL tables in EPIP-1. The allowable dose limit for an emergency worker to save a life was shown as 75 rem whole body in the plan, and 100 rem whole body in EPIP-10.

Based on the above findings, this part of the licensee's program appeared to be adequate; however, the following item is recommended for improvement:

Ensuring consistency between the plan and EIPs (50-062/85-02-08).

#### 2.2.1.2 Equipment

Through discussions with licensee representatives and observation and inspection of the equipment, the inspector determined that the radiological equipment and nonradiological monitors and indicators described in the plan and procedures as being relied on for emergency detection and classification were in place and operable.

Records were reviewed which showed that operability and calibration checks were performed on the equipment, and equipment condition was noted. Licensee representatives stated that inoperable instruments are routinely replaced and repaired.

The radiological equipment has alarm points set to correspond to specific dose rates at the site boundary, so conversion factors would not normally be needed, according to licensee representatives.

A low background proportional (alpha and beta) counter was available in the Health Physics Lab at the Facility. Other counting equipment was available elsewhere on the campus.

Based on the above findings, this portion of the licensee's program appeared to be adequate.

#### 2.2.2 Assessment Actions

The inspector reviewed the procedures applicable to this part of the licensee's program. EPIP-10, Assessment Actions, described the methods, systems and equipment for gathering and processing information and data on which to base decisions to escalate or de-escalate emergency response actions. EPIP-9, Radiological Surveys, and EPIP-10 described the methods for monitoring dose rates and contamination levels. EPIP-9, Section A.3 and EPIP-10, 2.a, addressed monitoring at the site boundary.

The EP and EIPs do not address assessment for a protracted period of time. Licensee representatives stated that the most protracted emergency situation was anticipated to last no more than 48 hours, and, if necessary, 12-hour shifts would be worked.

Based on the above findings, this portion of the licensee's program appeared to be adequate.

#### 2.2.3 Interviews and Walk-Throughs

The inspector interviewed seven operations personnel and one Health Physics Technician.

The individuals responsible for emergency detection, classification, and continuing assessment appeared to be familiar with the plan and procedures. During walk-throughs, the individuals were able to perform emergency detection and classification.

The individuals interviewed stated that they were trained through a variety of methods including lectures, roundtables, and drills.

Based on the above findings, this portion of the licensee's program appeared to be adequate.

### 2.3 PROTECTIVE/CORRECTIVE ACTIONS

#### 2.3.1 Facilities and Equipment

##### 2.3.1.1 Emergency Support Center

The Emergency Support Center (ESC) was inspected against the requirements of 10 CFR 50, Appendix E, and the criteria of ANSI/ANS 15.16-1982. The ESC was discussed in Section 8.1 of the emergency plan. Section 8.1 stated that it is the responsibility of the Emergency Coordinator to activate the ESC. However, this responsibility is not one of those assigned to him in Section 3.2 of the emergency plan.

A primary ESC would be established in the secretary's office. A tour of this area revealed that although telephones were available in the ESC, no EIPs or copy of the plan were located in the ESC but would need to be brought by the staff. (Other problems with the ESC were discussed in Section 2.1, Communications).

Based on the above findings, this portion of the licensee's program appeared to be adequate; however, the following item is recommended for improvement:

Placing copies of the Emergency Plan, EIPs, and Emergency Action in the ESC (50-062/85-02-09).

### 2.3.1.2 Protective Equipment

The adequacy of protective equipment was determined by a tour of the HP lab and an inventory check of the emergency supply cabinets.

The licensee maintained two emergency supply cabinets; one near the UVA and one near the Cavalier reactor. Each cabinet appeared to be adequately stocked with equipment for onsite personnel; however, it appeared that no provisions were made for providing equipment, such as dosimetry, and protective clothing for offsite support groups who might be required to enter a radiation or contaminated area.

A few minor problems were also noted with the cabinets. First, instruments in the cabinet were due for recalibration between the quarterly checks. Second, the rope used to cordon off radiation areas was white, not the standard yellow and magenta (this was observed to cause problems at the last exercise). The facility only has two Scott air packs available and one spare bottle.

Based on the above findings, this portion of the licensee's program appeared to be adequate; however, the following items are recommended for improvement:

Using radiation rope or tape to cordon off radiation areas rather than white rope (50-062/85-02-10).

Establishing a stock of protective clothing, respiratory protection equipment, and dosimetry for use by offsite support personnel (50-062/85-02-11).

### 2.3.1.3 Decontamination Capabilities

Decontamination is discussed in EPIP-12, Personnel Monitoring and Decontamination. The inspector reviewed this procedure and it appeared to be adequate; however, the following item is recommended for improvement:

Expanding contents of Decon Kits to provide improved decon capability or securing agreement with Health Physics for assistance (50-062/85-02-12).

#### 2.3.1.4 Equipment Maintenance and Calibrations

Emergency equipment and supplies were discussed in Section 8.6 of the emergency plan. The emergency plan required that the equipment be inventoried every six months, checked for operability every quarter, and recalibrated semi-annually. Spot checks of instruments in cabinets and around the building revealed instruments were calibrated every 3 months.

The plan also stated in Section 10.3 that all emergency equipment removed from service for repair or calibration will be replaced with an equivalent item.

Based on the above findings, this portion of the licensee's program appeared to be adequate.

#### 2.3.2 Evacuation and Accountability

##### 2.3.2.1 Evacuation

EPIP-14, Evacuation of Onsite Areas, discussed guidelines for an orderly evacuation of facility personnel and visitors. It discussed conditions for partial and complete evacuation during an emergency. However, evacuation routes were not clearly marked or posted. The procedure did not discuss a predesignated route. An evacuation alarm was in place at the facility and was tested for operability once every six months.

Based on the above findings, this portion of the licensee's program appeared to be adequate; however, the following items should be considered for improvement:

Posting evacuation routes with maps showing location of assembly areas (50-62/85-02-13).

Revising EPIP-14, Evacuation, to be consistent with EPIP-19, Reentry, which requires issuance of dosimetry and conduct of instrument checks prior to reentry. EPIP-14 did not require removal of these items from the building during evacuation (50-62/85-02-14).

##### 2.3.2.2 Accountability

##### 2.3.2.3 Assembly Areas

Accountability was discussed briefly in the plan. EPIP-11, Personnel Accountability, and EPIP-14, Evacuation of Onsite Areas, discusses the procedure for ensuring accountability and designated the assembly areas. Segregation of potentially contaminated individuals at the assembly areas was discussed in Section 7.5 of the plan. The inspector reviewed these procedures and they appeared to be adequate. However, the assembly areas were not posted.

Based on the above findings, this portion of the licensee's program appeared to be adequate; however, the following item should be considered for improvement:

Posting the primary and secondary assembly areas (50-62/85-02-15).

#### 2.3.2.4 Personnel Monitoring

The area of personnel monitoring is defined in emergency procedures and the plan. For example, EPIP-10, Assessment Action, discusses emergency exposure limits for personnel (in excess of 10 CFR 20 limits). Section 7.5 of the plan further discusses monitoring of evacuees and separation of contaminated individuals from uncontaminated evacuees.

Based on the above findings, this portion of the licensee's program appeared to be adequate.

#### 2.3.3 Personnel Exposure Control

Exposure guidelines were included in the plan and the procedures. However, inconsistencies were noted in the exposure guidelines. The plan guidelines were less conservative than the procedures (see 2.2.1.1, this report). High range personnel dosimeters were available in the emergency supply kits, as well as ropes and signs to be used for access/egress control. Access control at the facility was also discussed in EPIP-18, Facility Security.

Based on the above findings, this portion of the licensee's program appeared to be adequate.

#### 2.3.4 First Aid and Rescue

First aid equipment was kept in the emergency supply cabinets, and the equipment appeared to be adequate. However, only one staff member was Red Cross-qualified to administer first aid. First aid was also covered in procedure EPIP-13, First Aid and Medical Care. This procedure was reviewed and appeared to be adequate. Additional medical care was provided by the University hospital. The licensee relied on the Albemarle Rescue Squad for ambulance service to the hospital facility.

Based on the above findings, this portion of the licensee's program appeared to be adequate; however, the following item is recommended for improvement:

Training more than one staff member in first aid to ensure adequate coverage (50-62/85-02-16).

#### 2.3.5 Interviews and Walkthroughs

Interviews and walkthroughs were done in the areas of notification, accountability, and handling of emergency equipment. The individuals interviewed appeared to be well trained and knowledgeable of their responsibilities.

Based on the above findings, this portion of the licensee's program appeared to be adequate.

### 3.0 MAINTAINING EMERGENCY PREPAREDNESS

#### 3.1 EMERGENCY TRAINING AND RETRAINING PROGRAM

The inspectors reviewed Section 10.1, Training Program for Facility Personnel, of the Emergency Plan, held discussions with licensee training personnel and interviewed various onsite and offsite emergency response personnel in regard to their training. The inspectors noted that the licensee established and implemented a training and retraining program for emergency response personnel. Descriptions and records of training are maintained in various places. The licensee provided training in emergency notification, evacuation and accountability to onsite personnel who are not part of the emergency response organization. However, training records did not specifically document emergency training nor were there any records of periodic retraining. The inspectors noted that the training-retraining program could be strengthened by consolidating the training information into a training program manual or the training procedure to include the following:

- a) lesson plans for various subjects,
- b) objectives and contents of lessons,
- c) groups of lessons required by each category of onsite and offsite response personnel,
- d) provisions for attendance records for offsite personnel,
- e) provisions for attendance records for onsite personnel who are not part of the emergency response organization,
- f) frequency of retraining,
- g) emphasis to offsite support personnel of the biological effects of radiation and emergency response direction and control, and
- h) tours for all offsite personnel who may be required to enter the facility.

Based on the above findings, this portion of the licensee's program appeared to be adequate, but the following matter should be considered for improvement:

Strengthening the training/retraining program by including those areas identified above (50-62/85-02-17).

#### 3.2 DRILLS

The inspector reviewed the established emergency drill and exercise program with licensee personnel. The licensee developed a written scenario for conducting each exercise. The inspector reviewed reports of the two most recent medical exercises which included coordination of offsite support from the rescue squad, UVA police and medical facility personnel. Evacuation and accountability drills of the reactor facility were conducted several times each year. The inspector noted that observers were provided, critiques conducted and records maintained for any required follow-up for improvement items observed during the exercise or drill. The licensee has recently implemented an expansion of the exercise program to include onsite emergency organization notification, communications, classification, assessment, protective and corrective activities. Onsite



emergency exercises will be conducted annually while offsite support is to be included biennially.

Based on the above findings, this portion of the licensee's program appeared to be adequate.

### 3.3 MAINTENANCE OF PROCEDURES AND PLAN

The inspector reviewed Section 10.4, Review of Emergency Plan, held discussions with licensee personnel, and noted that the licensee has provided a means to review and update the emergency plan and implementing procedures. However, the inspector noted that provisions for review of emergency plans which are attached to the UVA reactor emergency plan (UVA Medical Center) or incorporated by reference (UVA Police Department, Commonwealth of Virginia and Oak Ridge Region Coordinating Office), were not developed. The UVA Medical Center Radiation Emergency Plan which was attached to the UVA Reactor Facility Emergency Plan was an outdated version.

Based on the above findings, this portion of the licensee's program appeared to be adequate; however, the following item should be considered for improvement:

Coordinating with offsite support groups to assure that current plans are available and updates in plans and procedures are compatible (50-62/85-02-18).

Letters of agreement with offsite support organizations were attached to the facility emergency plan as part of the appendix. The emergency plan specified that the emergency plan and appendix will be reviewed and, if necessary, updated by the Reactor Safety Committee during even numbered years. The letters of agreement with the rescue squad, UVA police and the Mutual Aid Agreement with Charlottesville and Albemarle County were dated January 1979, January 1979, June 1976, and May 1976, respectively. The lack of current agreements with offsite support organizations together with inadequate training for these personnel (see Sections 1.2.2, 1.2.3, and 1.2.4) could lead to delays in offsite response during an emergency.

Based on the above findings, this portion of the licensee's program appeared to be adequate; however, the following item should be considered for improvement:

Periodically updating the letters of agreement with offsite support organizations (50-62/85-02-19).

### 4.0 PERSONS CONTACTED

#### Licensee Contacts

- \*R. U. Mulder, Reactor Facility Director
- \*J. P. Farrar, Reactor Administrator
- \*P. E. Benneche, Reactor Supervisor
- \*B. Copcutt, Radiation Safety Officer



- \*R. Allen, Chairman, Radiation Safety Committee
- B. Hosticka, Senior Reactor Operator
- R. L. Ridenour, Senior Reactor Operator
- \*J. E. Henderson, Reactor Health Physicist
- G. D. Conley, Senior Reactor Operator
- T. L. Nguyen, Reactor Operator
- C. C. Cobb, Reactor Operator
- A. A. Turley, Health Physics Technician

Offsite Contacts

Commander S. Bailey, Albemarle County Police Department  
C. Bryan, Duty Officer, Charlottesville-Albemarle Rescue Squad  
M. Carroll, Dispatcher, Joint Dispatch Center and Emergency Services,  
Coordinator for Charlottesville and Albemarle County, Virginia Office  
of Emergency Services  
Captain R. Dunn, University of Virginia Police Department  
Commander T. W. Hawkins, Albemarle County Police Department  
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