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Licensee: Georgia Power Company
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Docket Nos.: 50-424 and 50-425 License Nos.: NPF-61 and CPPR-109

Facility Name: Vogtle 1 and 2

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SUMMARY

Scope: This special, announced inspection was an emergency preparedness implementation appraisal (EPIA) of Vogtle Electric Generating Plant (VEGP) Unit 2. The purpose of the appraisal was a comprehensive review of the status of the site and corporate emergency preparedness programs and identification of programmatic differences and/or changes specific to Unit 2. An EPIA of VEGP Unit 1 was performed in March 1986 (Inspection Report No. 50-424/86-12) to satisfy the preoperational requirements for that unit. Unit 2 was also included in that appraisal, and assigned Inspection Report No. 50-425/86-18, based upon the generic relationship of the Emergency Plan, respective procedures, and emergency response facilities (ERFs) provided for the two unit plant. Inspection Report Nos. 50-424/86-12 and 50-425/86-18 should be consulted as a reference for details applicable to Unit 2. To facilitate crossreference, VEGP Unit 2 appraisal areas and respective titles defined in the subject report are identical to those areas treated in the Unit 1 1986 Inspection Report.

Accordingly, the VEGP Unit 2 appraisal included review and assessment of the following basic areas: emergency preparedness program administration and Emergency Response Organization (ERO); training/retraining; ERF's, and respective equipment; emergency implementing and supplementary procedures and directives; coordination with offsite groups and agencies; and walkthroughs of selected ERO personnel to evaluate their cognizance of emergency detection/classification, notification, and protective action decision making.

The status of emergency preparedness open items, including previous outstanding enforcement matters were reviewed (Paragraph 9).

Results: The Unit 2 EPIA disclosed no violations or deviations. The appraisal indicated, however, that several areas specific to Unit 2 should be evaluated and considered for improvement. Additionally, several program areas involving Unit 2 were determined to be incomplete and could not be fully evaluated. These items are listed in Enclosures 2 and 3, respectively, to the letter, and are fully discussed in the subject report.

Review and evaluation of Emergency Plan Implementing Procedure 91602-C-Rev. 5 ("Emergency Drills and Exercises") disclosed a violation involving the licensee's failure to implement Section 4.18 of that procedure (Paragraph 7.1). The referenced procedure required the submission of a written report of emergency drills and exercises to the Plant General Manager defining specific critique findings and required corrective actions. This finding was fully discussed with cognizant licensee representatives prior to and during the appraisal exit interview (Paragraph 10). The identified violation was applicable solely to VEGP Unit 1, since it is based upon Appendix A Technical Specifications to the Unit's Operating License NPF-68. Unit 1 Inspection Report No. 50-424/88-38 was provided to accommodate tracking of the subject violation and documentation of the status of previously identified emergency preparedness open items assigned to that unit.

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EMERGENCY PREPAREDNESS IMPLEMENTATION APPRAISAL FOR
VOGTLE ELECTRIC GENERATING PLANT, UNIT 2

1.0 ADMINISTRATION

1.1-1.4 Responsibility Assigned, Authority, Coordination, Selection and Qualification

This area was reviewed pursuant to the requirements of 10 CFR 50.47(b)(1) and (16); Paragraph IV.A of Appendix E to 10 CFR 50; guidance promulgated in Section II.A and P of NUREG-0654, Rev. 1.

Inspection disclosed that three employees on the staff of the Vogtle Electric Generating Plant (VEGP) were engaged on a full-time basis in the development and implementation of the site emergency preparedness program and respective procedures. This group consisted of the Emergency Preparedness Supervisor, an Emergency Preparedness Specialist, and an administrative clerk. The Emergency Preparedness Supervisor reports to the Plant Training and Emergency Preparedness Manager. The latter principal reports directly to the VEGP General Manager. The Plant Training and Emergency Preparedness Manager, is assigned the general responsibility for site emergency preparedness and interaction with State and local offsite support groups. The Emergency Preparedness Supervisor and his staff implement the VEGP Emergency Plan. These responsibilities are described in the VEGP Administrative Procedures and Emergency Plan.

The Senior Vice President for Nuclear Operations is assigned overall responsibility and authority for all nuclear activities including emergency preparedness programs for the Georgia Power Company. The Corporate Manager, Nuclear Training and Emergency Preparedness has responsibility for corporate emergency preparedness programs, and reports to the Senior Vice President Nuclear Operations through the Manager of General Support. The Nuclear Emergency Preparedness Organization, which is composed of the Nuclear Emergency Preparedness Manager and three full-time professionals, reports to the Nuclear Training and Emergency Preparedness Manager. This organization coordinates the development and maintenance of the corporate emergency preparedness program. The Nuclear Emergency Preparedness Manager is the counterpart of the Emergency Preparedness Supervisor at VEGP. These responsibilities are described in the Corporate Emergency Plan, the VEGP Emergency Plan and the Corporate Emergency Plan Implementing Instructions (EPIIs).

Personnel assigned to the positions cited above fully met the required qualifications established in the (FSAR) and/or formal job descriptions. Professional development and formal training programs were made available to all professional emergency preparedness personnel to assure that their emergency planning expertise and skills are maintained as required.

The opportunity for all site personnel to provide input to the VEGP Emergency Plan and EPIPs is formalized and described in EPIPs 91602-C and 91701-C, and Administrative Procedures 00050-C and 99951-C which direct all requests for revisions to the plan and respective procedures to the Emergency Preparedness Supervisor. Administrative Procedure 00001 directs all managers to assign personnel to the Emergency Response Organization as requested by the Emergency Preparedness Supervisor.

Administrative Procedures 00001 and 00002 assign emergency preparedness responsibilities to the various VEGP managers and superintendents, and the Plant Review Board. These and other VEGP procedures clearly delineate the responsibilities for emergency preparedness onsite. The referenced procedures also provide for the direct coordination of budget input and other management responsibilities for Managers and Superintendents including the Plant Training and Emergency Preparedness Manager.

The Division of Administration of the Georgia Power Company (GPC) Emergency Preparedness Program as stipulated in the VEGP Emergency Plan and respective EPIPs, and the Corporate Emergency Plan and EPIIs, require that the corporate organization manage the corporate emergency response, and assures proper coordination between the emergency programs of the corporation and the nuclear plant sites, as well as interaction with Federal, State, and local governments, and private contractors.

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

2.0 EMERGENCY ORGANIZATION

2.1-2.2 Onsite Organization and Offsite Augmentation

This area was reviewed pursuant to the requirements of 10 CFR 50.47(b)(1) and (2); Paragraph IV.A of Appendix E to 10 CFR 50 and guidance promulgated in Sections II.A and B of NUREG-0654, Rev. 1.

The VEGP Emergency Response Organization was described in Section B of the VEGP Emergency Plan and in EPIP 91101-C. The descriptions provide the organizational structure and a listing of assigned personnel, by job title, for the key emergency positions assigned during response to an emergency event initiated with the Notification of an Unusual Event, and escalated through the General Emergency classification. Appropriate tables summarized the key emergency organization positions, with the job title of the primary designees, and respective alternates who will serve as backups for each emergency position assigned. Discussions with VEGP emergency personnel, and a review of the VEGP Emergency Plans, EPIPs and associated plant procedures indicated that the licensee appeared to have considered and included all required onsite emergency functions.

The 24 hour onshift coverage exceeded the criteria for minimum staffing promulgated in Table B-1 of NUREG-0654, and provided for the Onshift Operations Supervisor (OSOS) to assume the position of Emergency Director until relieved

by one of the following, namely: Manager of Operations, Operations Superintendent, Plant Manager, Plant Support Manager, VEGP General Manager or the Corporate Senior Vice President of Nuclear Operations. If the OSOS is incapacitated, the Shift Supervisor assumes the position of Emergency Director until relieved. The VEGP Emergency Plan and EPIPs provided a primary designee and at least two alternates for all key positions in the VEGP Emergency Response Organization and the lines of succession for these positions.

Corporate headquarters personnel augmented the VEGP emergency organization with a Corporate Emergency Center (CEC) based in Atlanta, Georgia. The CEC provided the following: public information functions; emergency support coordination of offsite agencies and contractors; communications; operational and radiological accident assessment; manpower and logistics support; and a backup dose assessment capability. The corporate emergency organization, position assignments, and interaction with VEGP were described in Section B of the Corporate Emergency Plan, Appendix 7 of the VEGP Emergency Plan, and Corporate Emergency Plan procedure EPII-01. The Corporate Emergency Center was managed by the Director of Corporate Response.

The position of Director of Corporate Response were normally assigned to the Senior Vice President for Nuclear Operations. His alternates were the Corporate Manager Nuclear Safety and Licensing, Manager of Nuclear Performance and Radiological Safety, or the Plant Performance Manager. Depending upon the progression of an accident at the plant, the Senior Vice President for Nuclear Operations and the Corporate Manager of Radiological Safety may travel to the plant site as primary designees for the positions of Emergency Director and Company Spokesperson, respectively. Additionally, the Director of Corporate Communication and the Corporate News Service Manager also may travel to the plant site as primary designees for the emergency positions of Public Information Manager in the plant EOF and Emergency News Center Director, respectively. The functions and responsibilities of the corporate public information staff were described in the VEGP Emergency Communications (Appendix 8 of the VEGP Emergency Plan) and in the EPIIs.

Review of assignments to the Corporate Emergency Organization disclosed that the Corporate Manager of Radiological Safety was cited as the primary designee for the Company Spokesperson and the Radiological and Radioactive Waste Manager. The dual assignment was documented in the site Emergency Plan, and the Corporate Emergency Plan and procedures. This finding was brought to the attention of the Corporate Nuclear Emergency Preparedness Manager who stated that the Radiological Safety Supervisor was primary designee for the position of Radiological and Radioactive Waste Manager. It was further stated that the observed error in primary assignments would be corrected. The error was traceable to recent changes in Corporate Personnel.

The assignment of personnel to the VEGP and Corporate Emergency Organizations was based primarily on their normal job assignments which relate to job experience, education, and special skills. Review of the VEGP and Corporate Emergency Plans and procedures indicated that personnel assigned to various functional areas and emergency positions had the appropriate expertise and job experience to perform their designated emergency functions.

The VEGP emergency response organization was supported by local ambulance and emergency medical services, and primary and alternate hospitals for treatment of contaminated and non-contaminated injured personnel. Fire control support was provided by the local fire departments. Local radio and television stations supported the warning and public notification program. Additional offsite support was provided by Westinghouse and other vendors, contractors, INPO, and Southern Company Services as stated in the agreement letters and descriptions of assistance provided in the VEGP and Corporate Emergency Plans.

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

- Review Corporate Emergency Organization staffing to ensure that personnel assignments are correct, and that an adequate number of personnel are available to fill key primary and alternate positions (50-425/88-42-01)

3.0 TRAINING

3.1 Program Established

This area was reviewed pursuant to the requirements of 10 CFR 19; 10 CFR 50.47(b)(15) and (16); Paragraph IV.F of Appendix E to 10 CFR 50; guidance promulgated in Sections II.O and P of NUREG-0654, Rev. 1; and criteria defined in ANSI/ANS 3.7.3.

The licensee training program for emergency planning was presented in Section O of the Vogtle Facility Radiological Emergency Plan (REP) and detailed in EPIP 91601-C. The program evaluation disclosed no significant changes since the review conducted during the Unit 1 emergency preparedness implementation appraisal and subsequent followup inspections. The training program remained adequate in scope and content, and continued to ensure required initial, remedial, and annual training of Emergency Response Organization (ERO) personnel. Note, that the subject program, as initially established, was based on two operating Units; therefore, adequate training of ERO personnel responding to an emergency at Unit 2 was also provided.

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

3.2 Program Implemented

This area was reviewed pursuant to the requirements of 10 CFR 50.47(b)(15)and (16); Paragraph IV.F of Appendix E to 10 CFR 50; and guidance promulgated in Sections II.O and P to NUREG-0654, Rev. 1.

The licensee's training program was fully implemented. A review of records indicated that VEGP emergency response organization personnel were adequately trained in each required training category, and that each position in the emergency response organization was adequately staffed. Personnel who did not successfully complete the required courses were excluded from the list of

personnel assigned to the emergency response organization and periodic update of same. The training status of all emergency response personnel was tracked to ensure that each person received required training on an annual basis (plus or minus one calendar quarter).

Course materials, including lesson plans and respective course examinations, were reviewed. Course and training content were consistent with the content as described in the licensee's records. Examination results were compared with training records. Personnel who failed an examination were required to retake the applicable training course and pass the course examination as a requirement for entry into the ERO and in the listing on the ERO roster as updated.

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

4.0 EMERGENCY FACILITIES AND EQUIPMENT

4.1 Emergency Facilities
4.1.1 Assessment Facilities

This area was reviewed pursuant to the requirements of 10 CFR 50.47(b)(8); Paragraph IV.E of Appendix E to 10 CFR 50; guidance promulgated in Regulatory Guide 1.97, and Section II.H of NUREG-0654, Rev. 1; and criteria defined in ANSI/ANS 3.7.2.

4.1.1.1 Control Room

The updated REP and EPIPs were available. Emergency equipment and decisional aids specified in the REP were in place and operable. When the temporary partition separating Units 1 and 2 Control Rooms is removed, the Control Rooms will share a common area, common monitor readouts, and communications equipment.

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

4.1.1.2 Technical Support Center (TSC)

This area was reviewed pursuant to the requirements of 10 CFR 50.47(b)(8); Paragraph IV.E of Appendix E to 10 CFR 50; orders defined in Supplement 1 to NUREG-0737; and guidance promulgated in Sections II.H and I of NUREG-0654, Rev. 1.

Inspection and discussions with cognizant licensee representatives disclosed that the TSC ventilation system will be manually switched to the emergency mode when the TSC is activated as required by facility activation procedures. As a consequence, the emergency filtration system processes all outside makeup air and 25% of the recirculated air through a standard HEPA train. The ventilation system was tested in the emergency mode. A TSC positive pressure of 0.25 inches of water was maintained during emergency recirculation.

Inspection of facility communication systems and equipment disclosed the following: dedicated individual voice links between the TSC and the Control Room were in place and operational; designated commercial telephones were provided for NRC use in addition to the operable Emergency Notification System (ENS) and Health Physics Network (HPN) extensions; dedicated telephone links to primary State and local government response agencies (ring-down) were in place and operational; and a radio system for communication between the TSC and radiological field monitoring teams was in place and fully operational.

Review and evaluation of the TSC confirmed that all emergency equipment and decisional aids were consistent with the requirements specified in the REP and EPIPs. No essential changes were noted for this facility with respect to the findings documented in the previously cited VEGP Unit 1 Appraisal Report (50-424/86-12, 50-425/86-18).

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

4.1.1.3 Operations Support Center (OSC)

This area was reviewed pursuant to the requirements of 10 CFR 50.47(b)(8); Paragraph IV.E of Appendix E to 10 CFR 50; guidance promulgated in section II.H of NUREG-0654, Rev. 1; and criteria defined in NUREG-0578.

The location of the OSC was consistent with the Emergency Plan and findings of the referenced Unit 1 appraisal. Consistent with previous findings, this facility was not environmentally protected; however, the OSC was provided with an Eberline AMS-3 continuous air monitor equipped with alarms and radioiodine monitoring capability. In the event of required OSC relocation, the TSC was designated as the secondary locus, with the EOF as an additional alternate.

Primary and backup voice communication links were provided between the OSC, TSC, and Control Room. The OSC contained all required emergency equipment, decisional aids, and communication equipment specified by the Emergency Plan and consistent with the findings documented in the Reference Unit 1 Appraisal Report. The OSC layout plan and the VEGP 10 mile and 50 mile EPZ maps were posted in the OSC Manager's office.

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

4.1.1.4 Emergency Operations Facility (EOF)

This area was reviewed pursuant to the requirements of 10 CFR 50.47(b)(8); Paragraph IV.E of Appendix E to 10 CFR 50; guidance promulgated in Section II.H of NUREG-0654, Rev. 1; and criteria defined in NUREG-0578.

The EOF contained all of the emergency equipment and decisional aids specified in the REP and respective EPIPs. The EOF was equipped with dedicated voice communications with the TSC, OSC, and Control Room. Dedicated commercial telephones were provided for NRC use, including ENS and HPN extensions at the

NRC assigned work location. Adequate non-dedicated backup voice communication links to the NRC, other Federal, State, and local agencies, and emergency support organizations were also provided. Radios were provided for communication with field monitoring teams, and inter-emergency facilities in the event of power failure. All findings were consistent with those reported in the Unit 1 EPIA report.

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

4.1.1.5, 4.1.1.6 Post-Accident Sampling and Analysis

This area was reviewed pursuant to the requirements of 10 CFR 50.47(b)(9); Paragraph IV.B and E of Appendix E to 10 CFR 50; and guidance promulgated in Section II.I of NUREG-0654, Rev. 1.

The Post Accident Sampling System (PASS) utilized both a primary remote panel and a backup local panel for comprehensive sampling and analysis of liquid coolant samples and containment air samples. At the time of the appraisal, installation and testing of the Unit 2 PASS was incomplete. The expected completion time was dependent on the availability of essential equipment; however, the licensee planned to begin initial testing on or about September 20, 1988. Once completed, the system will be identical to the Unit 1 system, which was determined to be adequate during the Unit 1 appraisal and respective followup inspections.

Based on the above findings, this portion of the licensee's program was determined to be incomplete as defined below.

Completion of installation and testing of Unit 2 Post Accident Sampling System (50-425/88-42-02).

4.1.1.7, 4.1.1.8 Post-Accident Liquid Effluent and Gas and Particulate Effluent Sampling and Analysis

This area was reviewed pursuant to the requirements of 10 CFR 50.47(b)(9); Paragraphs IV.B and E of Appendix E to 10 CFR 50; and guidance promulgated in Section II.I of NUREG-0654, Rev. 1.

Instruments and systems for post-accident liquid effluent sampling, gas and particulate effluent sampling were not yet in place in Unit 2. The licensee estimated that this equipment would be in place and operational by mid-January, 1989. The equipment will be identical to that used in Unit 1, which was found to be adequate during the Unit 1 EPIA and followup inspections.

Based on the above findings, this portion of the licensee's program was found to be incomplete as defined below.

Completion of installation and operation of instruments, systems and equipment required to conduct sampling and analysis of liquid, gas, and particulate effluents (50-425/88-42-03).

4.1.2 Protective Facilities

4.1.2.1 Assembly/Reassembly Areas

This area was reviewed pursuant to the requirements of 10 CFR 50.47(b)(10); and guidance promulgated in Section II.J of NUREG-0654, Rev. 1.

The inspector reviewed Section J of the Emergency Plan, EPIP 91401-C "Assembly and Accountability", EPIP 91403-C "Site Evacuation", Section VII of the General Employee Badge Training Handbook, and the respective Section of the referenced VEGP Unit 1 Appraisal Report. Areas for assembly and relocation of plant personnel were identical to those identified and discussed in the Unit 1 Appraisal Report. Procedures for site assembly evacuation and relocation were essentially unchanged as well. The Vogtle Electric Generating Plant recreation area served as the primary relocation center. The Georgia Power Wilson Plant site was assigned for use as the backup relocation center as determined by the Emergency Director who could also elect to send nonessential personnel home, if conditions warranted.

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

4.1.2.2 Medical Treatment Facilities

This area was reviewed pursuant to the requirements of 10 CFR 50.47(b)(12); Paragraph IV.E of Appendix E to 10 CFR 50; guidance promulgated in Sections II.K and L of NUREG-0654, Rev. 1; and criteria defined in ANSI/ANS 3.7.1.

The inspector reviewed Section L of the Emergency Plan, and EPIP 91307-C "Contaminated Injury." The onsite first-aid station was located near the health physics station in the control building. The facility was fully prepared for use. Required supplies and equipment were in place within the first-aid room and adjacent decontamination room. An inventoried and sealed ambulance kit was available in the decontamination room. Hospital kits were available at the Burke County and the Humana Hospitals. The hospital kits were inventoried and properly sealed.

An ambulance is stationed onsite, and is used primarily by construction contractors. Following completion of the Unit 2 construction phase, the licensee plans to assume management and use of the on site ambulance during operation of Units 1 and 2. If the ambulance is not in service, or several persons are injured occur during an emergency, transportation to designated local hospitals would be provided by off site support groups consistent with approved agreements.

Based on the above findings, this portion of the licensee's program appeared to be adequate and consistent with findings of Unit 1 EPIA and respective followup inspections.

4.1.2.3 Decontamination Facilities

This area was reviewed pursuant to the requirements of 10 CFR 50.47(b)(8),(10), and (11); Paragraph IV.E of Appendix E to 10 CFR 50; and guidance promulgated in Sections II.J and K of NUREG-0654, Rev. 1.

The inspector reviewed Section K.3 of the Emergency Plan, EPIP 91306-C, "Contamination Monitoring and Decontamination", and respective sections of the Unit 1 Appraisal Report. The decontamination facility was located in the first aid facility adjacent to the first aid room, and was common to both Units 1 and 2. Decontamination kits were available at that location, the OSC, EOF, and the two relocation centers, namely, the VEGP recreation area, and Plant Wilson. The decontamination facility, supplies, equipment, and procedures were consistent with those available during the Unit 1 Appraisal.

Based on the above findings and consistent with the findings of Unit 1 EPIA, this portion of the licensee's program appeared to be adequate.

4.1.3 Expanded Support Facilities

This area was reviewed pursuant to 10 CFR 50.47 (b)(3) and (8); Paragraph IV.E of Appendix E to 10 CFR 50; and guidance promulgated in Sections II.C and H of NUREG-0654, Rev. 1.

Available work facilities and resources for expanded support personnel such as corporate, contractor, and non-licensee augmentation personnel were identical to those determined to be adequate during the Unit 1 EPIA. No additions or modifications to the subject facilities and resources were implemented.

Based on the above findings, and consistent with the Unit 1 EPIA, this portion of the licensee's program appeared to be adequate.

4.1.4 Emergency News Center

The Emergency News Center (ENC) was determined to be fully adequate during Unit 1 EPIA and respective followup inspections. No signficant changes were identified.

4.2 Emergency Equipment

4.2.1 Assessment Equipment

4.2.1.1 Emergency Kits and Emergency Survey Instrumentation

This area was reviewed pursuant to the requirements of 10 CFR 50.47(b)(8) and (9); Paragraphs IV.B and E of Appendix E to 10 CFR 50; and guidance promulgated in Sections II.H and I of NUREG-0654, Rev. 1.

Section H.6 of the Emergency Plan, EPIP 91702-C, Rev. 6 (Emergency Equipment and Supplies), and respective Sections of the Unit 1 EPIA report and respective followup inspections were reviewed. Emergency kits were located in the TSC,

OSC, EOF, at the health physics control point, ambulance, Burke County and Humana hospitals, and relocation centers. Inspection confirmed that kits were inventoried quarterly. Inventory checks were performed on the health physics decontamination kit, EOF kit, and a field monitoring kit. All findings disclosed were consistent with those defined in the Unit 1 EPIA report and respective follow-up inspections. No essential changes were made nor required for VEGP Unit 2.

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

4.2.1.2 Area and Process Radiation Monitors

This area was reviewed pursuant to the requirements of 10 CFR 50.47(b)(9); Paragraphs IV.B and E of Appendix E to 10 CFR 50; guidance promulgated in Section II.H and I of NUREG-0654; and criteria defined in NUREG-0737.

Special emphasis was placed on reviewing the status of Unit 2 radiation monitors required to provide information critical to the emergency classification process and protective action recommendations. The status of the following monitoring systems was reviewed, namely: Control Room; containment low-range monitor; fuel handling building; sampling room; seal table instrumentation; containment access hatch; containment high-range; TSC display room; TSC work area; radiochemistry laboratory; steamline monitors; and decontamination station monitors.

Descriptions of the monitors could be found in Section 11.5 (Process and Effluent Radiological Monitoring and Sampling Systems) and Section 12.3.4 (Area Radiation Monitoring System) of the FSAR. Monitors in Unit 2 will be identical in type and respective placement to those in Unit 1, as discussed in the Unit 1 EPIA Report. Readouts will be available locally and in the Unit 2 Control Room. Unit 2 monitors were currently being installed and calibrated. Discussions with licensee staff indicated that the monitors will be operational by mid-January 1989.

Based on the above findings, this portion of the licensee's program was found to be incomplete, as defined below.

- Completion of installation, calibration and testing of Unit 2 area and process radiation monitors (50-425/88-42-04).

4.2.1.3 Non-Radiation Process Monitors

This area was reviewed pursuant to the requirements of 10 CFR 50.47(b)(9); Paragraphs IV.B and E of Appendix E to 10 CFR 50; guidance promulgated in Sections II.H and I of NUREG-0654, Rev. 1; and criteria defined in NUREG-0737.

The inspector reviewed the availability and status of non-radiation process monitors which are used in emergency detection, classification, and protective action recommendations. Examples of these instruments include: reactor coolant system (RCS) temperatures, pressures ,and flow; steam generator levels,

temperatures, and pressures; and tank levels. Table 7.5.2-1 of the FSAR, listed all such "Post Accident Monitoring Instrumentation" of Regulatory Guide 1.97.

Inspection disclosed that Unit 2 respective non-radiation process monitors applicable to accident assessment were identical to those provided in Unit 1, as discussed in the Unit 1 EPIA Report.

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

4.2.14 Meteorological Instrumentation

The site Meteorological Program was fully defined and treated in the Unit 1 EPIA Report and respective followup inspection reports. No further discussion of this area is required.

4.2.2 Protective Equipment

4.2.2.1 Respiratory Protection

This area was reviewed pursuant to the requirements of 10 CFR 50.47 (b)(8); Paragraph IV.E of Appendix E to 10 CFR 50; guidance promulgated in Sections II.H and J of NUREG-0654, Rev. 1, and guidance in NUREG-0041.

Table 3-1 of the REP and Health Physics Procedure 47013-C describe the inspection, maintenance, and storage of self-contained breathing apparatus (SCBAs).

Inspection and discussions with cognizant licensee representatives disclosed that respiratory protection needs (full-faced respirators and SCBAs) for emergencies involving Unit 2 would be obtained from common supplies established for Units 1 and 2. The subject supplies were located in the Control Room, TSC, OSC, HP control point, and EOF. This finding was consistent with those discussed in Unit 1 EPIA Report and respective followup inspection reports.

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

4.2.2.2 Protective Clothing

This area was reviewed pursuant to the requirements of 10 CFR 50.47(b)(8) and (11); Paragraph IV.E of Appendix E to 10 CFR 50; and guidance promulgated in Section II.H, J, and K of NUREG-0654, Rev. 1.

Discussions with licensee staff indicated that protective clothing needs during emergencies involving Unit 2 would be obtained from common supplies located in the Control Room, TSC, OSC, HP control point, EOF, and relocation centers. The supply inventory was based upon the projected requirements for two operating units. Protective clothing supplies and the adequacy thereof is fully discussed in the Unit 1 EPIA Report.

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

4.2.3 Emergency Communications

4.2.3.1 Emergency Communications Equipment

This area was reviewed pursuant to the requirements of 10 CFR 50.47(b)(6); Paragraphs IV.E and G of Appendix E to 10 CFR 50; and guidance promulgated in Sections II.E and F of NUREG-0654, Rev. 1.

In accordance with Section F of the VEGP Emergency Plan, the onsite emergency communications consisted of the following: Emergency Notification Network (ENN) connecting the Control Room, TSC, EOF, and back-up EOF; GPC General Office Hotline between the Control Room, TSC, and EOF; dedicated dial between the Control Room, TSC, OSC, EOF and back-up EOF; GPC General Office Dial between the Control Room, TSC, EOF and back-up EOF; Bell Dial between the Control Room, TSC, OSC, EOF and back-up EOF; inplant radio between the TSC and OSC; and Plant Page System between the Control Room, TSC, and OSC. Provisions were also in place for routinely checking operability of emergency communications devices and equipment on a monthly and quarterly basis. Review of the communications test records required by EPIP 91204-C, "Emergency Response Communications" disclosed the following findings:

- Recently acquired emergency vehicle No. 6 was not listed on the Monthly Radio Checklist defined by EPIP 91204-C. As a result, the vehicle's radio was not tested during July or August, 1988, as required.

- The radio in emergency vehicle No. 4 was out of service during the monthly tests conducted on December 1, 1987. A new data sheet was not completed to document the repair and retest as required by the above referenced procedure.

- The monthly test of the ENS and the Health Physics Network (HPN) conducted on January 22, 1988, contained four test items marked "NA" and a statement in the remarks section stating that the "Emergency Preparedness Supervisor determined that intra VEGP ENS testing was not required." This resulted in failure to test some portions of the system during January 1988. A full system test was subsequently conducted on February 12, 1988.

- The quarterly facility telephone test conducted on July 28, 1988, for the Backup EOF did not indicate if the test was satisfactory.

- The date and time of the TSC remote radio checks were not indicated for the monthly check conducted on August 10, 1988.

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

- Ensuring that emergency vehicle No. 6 is included in the monthly radio checklist and that routine tests are conducted as required (50-425/88-12-05).

- Ensuring that communication test forms are properly completed as required by the respective procedure, and that resolution of any and all problems and retests related thereto are fully documented (50-425/88-42-06).

4.2.4. Damage Control/Corrective Action and Maintenance Equipment and Supplies

This area was reviewed pursuant to the requirements of 10 CFR 50.47(b)(8); Paragraph IV.E of Appendix E to 10 CFR 50; and guidance promulgated in Section II.H of NUREG-0654, Rev. 1.

Damage control/corrective action, and maintenance equipment and supplies were found to be consistent with the detailed findings documented in the Unit 1 EPIA Report. Based upon the general relation of the subject requirements to the two unit plant, the supplies and equipment were determined to be adequate.

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

4.2.5 Reserve Emergency Supplies and Equipment

This area was reviewed pursuant to the requirements of 10 CFR 50.47(b)(8); Paragraphs IV.E and G of Appendix E to 10 CFR 50: and guidance promulgated in Section II.H of NUREG-0654, Rev. 1.

Reserve emergency supplies and equipment were found to be consistent with the detailed findings documented in the Unit 1 EPIA Report and related followup inspections. Based upon the generic relation to Unit 2, no further review of this area was required.

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

4.2.6 Transportation

This area was reviewed pursuant to the requirements of 10 CFR 50.47(b)(8); Paragraph IV.E and G of Appendix E to 10 CFR 50; and guidance promulgated in Section II.H of NUREG-0654, Rev. 1.

Transportation was fully discussed in the VEGP Unit 1 EPIA Report and respective followup inspection reports. The licensee had an ambulance permanently assigned to the plant site. Additionally, two vehicles were located at the Training Center and four other emergency vehicles were located onsite. All vehicles were equipped with emergency radios.

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

5.0 EMERGENCY IMPLEMENTING PROCEDURES

5.1 General Content and Format

This area was reviewed pursuant to the requirements of 10 CFR 50.47(b); Appendix E to 10 CFR 50; guidance promulgated in section II.B of NUREG-0654, Rev. 1; and criteria defined in Regulatory Guide 1.33.

Each procedure described and highlighted the prerequisites and conditions that must exist before the specified emergency preparedness actions are performed, and the precautions and limitations to be observed during performance of such actions. Each procedure provided required approval documentation, checklists and data sheets to verify that the actions described therein were completed as required. It was noted that one reference in the REP was incorrect. Section H.1 of the REP stated that "the filtration system will be placed in Emergency Mode when the TSC is activated based on procedure EPIP 91201-C "Activation and Operation of the Technical Support Center." Switching the TSC ventilation system to the filtration mode, attending activation of the TSC, however, is defined in EPIP 91110-C, "Duties of Health Physics Supervisor". Accordingly, the Health Physics Supervisor is designated to manually actuate the subject system. The licensee promptly submitted a manual change request to correct the REP.

Based on the above findings, this portion of the licensee's program appeared to be adequate; however, the incomplete item defined below was identified.

> Completion of revision of Section H-1 of the REP to define the correct procedure requiring actuation of the TSC ventilation system immediately upon activation of that facility (50-425/88-42-07).

5.2 Emergency, Alarm and Abnormal Occurrence Procedures

This area was reviewed pursuant to the requirements of 10 CFR 50.47(b)(9); Paragraph IV.B of Appendix E to 10 CFR 50; and guidance promulgated in Sections II.D, H, and I of NUREG-0654, Rev. 1.

In addition to plant normal operating procedures, the licensee used three types of procedures for off-normal conditions namely: Alarm Response Procedures (ARP 17000 series), Abnormal Operating Procedures (AOP 18000 series) and Emergency Operating Procedures (EOP 19000 series).

None of the ARPs reviewed required evaluation of the initiating conditions relative to emergency action levels. It was noted, however, that ARPs applicable to events requiring implementation of the Emergency Plan referred reactor operators to AOPs and/or EOPs and the respective Emergency Plan Implementing Procedures. AOPs included event-oriented abnormal conditions that were not included in the EOPs, such as seismic events, reactor coolant high activity, and fuel handling events. All AOPs, ARPs, and EOPs were reviewed for

completeness. The inter-relationship of ARPs to AOPs and EOPs were clearly defined and determined to be adequate.

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

5.3 Implementing Instructions

This area was reviewed pursuant to the requirements of 10 CFR 50.47(b)(9); Paragraphs IV.C and D of Appendix E to 10 CFR 50; and guidance promulgated in Sections II.C, D, H, and I and Appendix 1 of NUREG-0654, Rev. 1.

The inspector reviewed the EPIPs to determine if the procedures adequately implemented the REP in accordance with the above requirements. A procedure was established and maintained for each class of emergency specified in the Emergency Plan. Implementing instructions were written for use by the Emergency Director (ED). The functional responsibilities of the ED were clearly specified, including those responsibilities which cannot be delegated. This area was discussed in detail in the Unit 1 EPIA Report and respective followup inspection reports.

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

5.4 Implementing Procedures

5.4.1 Notification

This area was reviewed pursuant to the requirements of 10 CFR 50.47(b)(5) and (6); Paragraphs IV.C and D of Appendix E to 10 CFR 50; and guidance promulgated in Sections II.E, F, H and J of NUREG-0654, Rev. 1.

This area was reviewed in detail and fully discussed in the Unit 1 EPIA Report. No changes were identified. The sequence of notifications to alert, mobilize, and/or augment the onsite emergency organization and supporting agencies was specified for each class of emergency. The notification procedures contained a listing of all persons and agencies included in the response scheme, and defined the means to be used to implement the initial contact and required followups.

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

5.4.2 Assessment Actions

This area was reviewed pursuant to the requirements of 10 CFR 50.47(b)(9) and (10); Paragraph IV.B of Appendix E to 10 CFR 50; guidance promulgated in Sections II.I, J, and M of NUREG-0654, Rev. 1, and guidance promulgated in IE Information Notice No. 83-28.

The following items, including training lesson plans for off-site dose assessment, were reviewed: (1) Section I of the Emergency Plan; (2) EPIP 91304-C "Computerized and Manual Back-Up Methods for Release Rate and Dose Calculations;" (3) EPIP 91305-C "Protective Action Guidelines;" (4) EPIP 91001-C "Emergency Classification and Implementing Instructions;" (5) training lesson plans for offsite dose assessment. Additionally, walkthroughs on dose assessment were conducted with two Health Physics Foremen.

A review of VIBRANT (the licensee's computerized dose assessment program) indicated that parameters specific to Unit 2 (e.g., Unit 2 effluent monitors and effluent path flow rates) were not yet incorporated into the program.

The dose assessment walkthroughs revealed several items of concern regarding EPIP 91304-C. One Health Physics Foreman did not know how to use the default isotopic release rates in Worksheet 1 of the subject procedure for calculating offsite doses. In addition, a second Health Physics Foreman did not know how to interpret wind direction readings greater than 360°. Finally, during a walk-through using the isotopic release input option of VIBRANT, it was noted that the reference identification numbers (ID#s) for radioiodine isotopes in VIBRANT were not consistent with the ID#s listed in EPIP 91304-C Worksheet 1. Reference ID#s in VIBRANT were 18-22, while Worksheet 1 defined values of 16-20. It was further noted that EPIP 91304-C did not describe the use of POPDOSE. POPDOSE is a computer model run on an HP-110 computer to determine population doses. A review of the training lesson plan for Offsite Dose Assessment indicated that training was provided on the use of POPDOSE.

Table 1, Item 5 of EPIP 91305-C did not address protective action recommendations for whole body doses greater than 5 rem, and thyroid doses greater than 25 rem. The current procedure reads: "a. whole body: 1 rem to 5 rem"; and "b. thyroid: 5 rem to 25 rem."

Based on the above findings, this portion of the licensee's program appeared to be adequate; however, the following incomplete item defined below was identified.

Incorporation of Unit 2 specific effluent monitor information into the VIBRANT program code (50-425/88-42-08).

Additionally, the items listed below which relate to accident assessment should be considered for program improvement.

- Ensuring that personnel trained in offsite dose assessment are cognizant of use of default isotopic release rate data defined in EPIP 91304-C (50-425/88-42-09).

- Ensuring that personnel trained in offsite dose assessment are fully cognizant of interpretation of wind direction readings greater than 360 degrees (50-425/88-42-10).

- Ensuring that reference ID#s for radioiodines listed in VIBRANT and Worksheet 1 of EPIP 91304-C are consistent (50-425/88-42-11).

- Providing guidance on the use of POPDOSE defined in EPIP 91304-C (50-425/88-42-12).

- Reviewing recommended protective actions for whole body doses greater than 5 rem, and thyroid doses greater than 25 rem promulgated in Table 1, Item 5, of EPIP 91305-C (50-425/88-42-13).

5.4.2.1 - 5.4.2.3 Offsite, Onsite, and In-Plant Radiological Surveys

These areas were reviewed pursuant to the requirements of 10 CFR 50.47(b)(9); Paragraphs IV.B and E of Appendix E to 10 CFR 50; and guidance promulgated in Sections II.H, I, and K of NUREG-0654, Rev. 1.

EPIP 91303-C "Field Sampling and Surveys" and EPIP 91302-C "In-Plant Sampling and Surveys" were reviewed. The Unit 1 EPIA Report and respective followup inspections disclosed that the subject procedures were determined to be adequate.

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

5.4.2.4 - 5.4.2.7 Procedures for Primary Coolant and Containment Air Sampling and Analysis

This area was reviewed pursuant to the requirements of 10 CFR 50.47(b)(9); Appendix VI.B and E of 10 CFR 50; and guidance promulgated in Section II.I of NUREG-0654, Rev. 1.

Procedures relevant to the PASS system included the following chemistry procedures: 30180-C, "Post Accident Sampling System Program;" 33065-C, "Gamma Spectroscopy Under Post Accident Conditions;" 35611-C, 35614-C, 35615-C, and 35620-C, describing procedures for operation of the PASS system; and 35623-C through 35640-C, describing procedures for calibration, troubleshooting, and quality control addressing PASS system components. The subject chemistry procedures were common to Units 1 and 2 PASS, and were determined to be adequate during the Unit 1 EPIA and respective followup inspections. Note, however, that procedures 35611-C and 35615-C, should be revised to reflect Unit 2 valve numbers. The licensee was aware that these revisions were required as indicated by notations made in these procedures. The licensee indicated that the revisions would be completed following hot testing of the Unit 2 PASS system.

Based on the above findings, this portion of the licensee's program appeared to be adequate; however, the Incomplete Item defined below was identified.

- Revision of Chemistry Procedures 35611-C and 35615-C to Reflect Unit 2 PASS valve numbers (50-425/88-42-14).

5.4.2.8 - 5.4.2.11 Procedures for Stack and Liquid Effluent Sampling and Analysis

This area was reviewed pursuant to the requirements of 10 CFR 50.47(b)(9); Paragraphs VI.B and E of Appendix E to 10 CFR 50; and guidance promulgated in Section II.I of NUREG-0654, Rev. 1.

Procedures relevant to this area included the following Chemistry Procedures: 33016-C "Obtaining Ventilation Systems Samples for Radioactivity Analysis Under Post-Accident Conditions;" 33017-C "Monitoring of the Radioactive Liquid Waste Management System During Recovery Operations Following an Accident;" 36011-C "Radiation Effluent Off Normal Conditions;" and 33065-C "Gamma Spectroscopy Analysis Under Post Accident Conditions." The subject procedures were common to both units, and were determined to be adequate during followup inspections to the Unit 1 EPIA.

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

5.4.2.12 Radiological and Environmental Monitoring Program

This area was reviewed pursuant to the requirements of 10 CFR 50.47(b)(9); Paragraphs IV.B and E of Appendix E to 10 CFR 50; guidance promulgated in Section II.I of NUREG-0654, Rev. 1; and criteria defined in Supplement 1 to NUREG-0737.

The routine radiological and environmental monitoring program also provided the capability for post accident monitoring. During and following the accident mode, the subject program would be implemented by the Manager of Radiological Safety. This program was common to Units 1 and 2 and was determined to be adequate during the Unit 1 EPIA. No significant program changes were made.

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

5.4.3 Protective Actions

5.4.3.1 Radiation Protection During Emergencies

This area was reviewed pursuant to the requirements of 10 CFR 50.47(b)(11); Paragraph IV.B of Appendix E to 10 CFR 50; and guidance promulgated in Section II.K of NUREG-0654, Rev. 1.

Emergency Procedure EPIP 91305-C "Protective Action Guidelines," and EPIP 91301-C "Emergency Exposure Guidelines" were reviewed. These procedures were determined to be adequate during the Unit 1 EPIA and the respective followup inspections. The subject procedures were applicable to VEGP Units 1 and 2.

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

5.4.3.2 Evacuation of Owner-Controlled Areas

This area was reviewed pursuant to the requirements of 10 CFR 50.47(b)(10); Paragraph IV.B of Appendix E to 10 CFR 50; and guidance promulgated in Section II.J of NUREG-0654, Rev. 1.

Emergency Procedure EPIP 91403-C "Site Evacuation" was reviewed in detail. This procedure was determined to be adequate during the Unit 1 EPIA. No significant changes or revisions to the site evacuation procedure were made.

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

5.4.3.3 Personnel Accountability

This area was reviewed pursuant to the requirements of 10 CFR 50.47(b)(10); Paragraph IV.B of Appendix E to 10 CFR 50; and guidance promulgated in Section II.J of NUREG-0654, Rev. 1.

Emergency Procedures EPIP 91401-C "Assembly and Accountability," EPIP 91402-C "Search and Rescue," and EPIP 91704-C "Actions for Security During a Radiological Emergency" were reviewed in detail and discussed with cognizant licensee representatives. These procedures were determined to be adequate during the Unit 1 EPIA and respective followup inspections. No significant changes to any of the subject procedures were made.

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

5.4.3.4 Personnel Monitoring and Decontamination

This area was reviewed pursuant to the requirements of 10 CFR 50.47(b)(10); Paragraphs IV.B and E of Appendix E to 10 CFR 50; and guidance promulgated in Section II.K of NUREG-0654, Rev. 1.

Emergency Procedures EPIP 91306-C "Contamination Monitoring and Decontamination" and EPIP 91307-C "Contaminated Injury" were reviewed. These procedures were found to be adequate during the Unit 1 EPIA and respective followup inspections.

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

5.4.3.5 Onsite First-Aid/Rescue

This area was reviewed pursuant to the requirements of 10 CFR 50.47(b)(12); Paragraph IV.E of Appendix E to 10 CFR 50; guidance promulgated in Sections II.K and L of NUREG-0654, Rev. 1, and criteria defined in ANSI/ANS 3.7.1.

The inspector reviewed Sections L.1 and L.2 of the Emergency Plan, and EPIPs 91301-C "Emergency Exposure Guidelines," 91306-C "Contamination Monitoring and Decontamination," 91307-C "Contamination Injury," and 91402-C "Search and Rescue." The subject procedures were determined to be adequate during the Unit 1 EPIA and respective followup inspections. The subject references are applicable to postulated accidents involving either Units 1 or 2.

Inspection disclosed that 33 health physics technicians received current Red Cross Multi-media First Aid training, and the licensee's medical radiological emergency training course. Some of the cited personnel received additional first-aid training as well. Fifteen persons assigned to the ambulance crew were qualified emergency medical technicians (EMTs).

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

5.4.4 Security During Emergencies

This area was reviewed pursuant to the requirements of 10 CFR 50.47(b)(10); Paragraph IV.B of Appendix E to 10 CFR 50; guidance promulgated in Section II.J of NUREG-0654, Rev. 1; and requirements defined in Appendix C to 10 CFR 73.

The security measures implemented during plant site emergencies were specified in Emergency Procedure EPIP 91704-C "Actions for Security During a Radiological Emergency." This procedure was reviewed in detail and discussed with cognizant licensee representatives. The procedure was determined to meet the requirements of the above regulatory criteria and guidance.

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

5.4.5 Repair/Corrective Actions

This area was reviewed pursuant to the requirements of 10 CFR 50.47(b)(11) and (13); Paragraph IV.E of Appendix E to 10 CFR 50; and guidance promulgated in Sections II.K and M of NUREG-0654, Rev. 1.

The REP and EPIPs provided a detailed description of the operations performed by the TSC, OSC, and Radiological Emergency Teams (RETs) for investigation, repair, and/or corrective action activities during emergency events. This area was reviewed in detail during the Unit 1 EPIA, and was determined to be adequate. No significant changes were identified.

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

5.4.6. Recovery

This area was reviewed pursuant to the requirements of 10 CFR 50.47(b)(13); Paragraph IV.H of Appendix E to 10 CFR 50; and guidance promulgated in Section II.M of NUREG-0654, Rev. 1.

The Emergency Plan and the EPIPs specified the authority for declaring that a recovery phase has been entered. Provisions for evaluating plant operating conditions, and in-plant and off-site radiological conditions were identified. The plan and procedures defined the requirements for discussion with other individuals and agencies prior to initiation and declaration of the recovery mode.

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

5.4.7 Public Information

This area was reviewed pursuant to the requirements of 10 CFR 50.47(b)(7); Paragraph IV.D of Appendix E to 10 CFR 50; and guidance promulgated in Section II.G of NUREG 0654, Rev. 1.

This area was reviewed in detail during the VEGP Unit 1 EPIA and respective followup inspections. Current review of the Public Information Program and facilities disclosed no significant changes.

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

5.5 Supplementary Procedures

5.5.1 Inventory, Operational Check and Calibration of Emergency Equipment, Facilities and Supplies

This area was reviewed pursuant to the requirements of 10 CFR 50.47(b)(8); Paragraph IV.G. of Appendix E to 10 CFR 50; and guidance promulgated in Section II.H. of NUREG-0654, Rev. 1.

EPIP 91702-C required the Health Physics Superintendent to be responsible for ensuring quarterly inventory of emergency instrumentation and supply kits. The kits were also to be inventoried after each use. This procedure called for each kit to be inspected for the exact amount of supplies available, and verification of operability checks of all instrumentation and equipment. Forms were provided for the ten different types of kits, listing the type and amount of each item that should be available.

A review of the records in the VEGP emergency preparedness organization for the last three quarters indicated that all kits were inventoried as required. These records were also maintained in document control and the health physics organization.

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

5.5.2 Drills and Exercises

This area was reviewed pursuant to the requirements of 10 CFR 50.47(b)(14); Paragraph IV.F. of Appendix E to 10 CFR 50; and guidance promulgated in Section II.N of NUREG-0654, Rev. 1.

EPIP 91602-C placed primary responsibility for the conduct of emergency drills on the VEGP Emergency Preparedness Supervisor, while the Corporate Manager of Nuclear Training and Emergency Preparedness retained overall responsibility for the annual exercise. The annual exercise was to be planned and implemented through the Corporate Exercise Coordinator in conjunction with the VEGP Emergency Preparedness Supervisor. The Corporate Exercise Coordinator was to be appointed by the Corporate Manager of Nuclear Training and Emergency Preparedness.

The referenced procedure provided data sheets and forms for development of scenarios, simulated messages, and forms to document observations and evaluations. Additionally, the procedure required the Emergency Preparedness Supervisor to prepare a report for the VEGP General Manager through the Plant Training and Emergency Preparedness Manager. A critique of each drill and exercise was required by this procedure, and a written report, including significant comments and corrective actions, was to be prepared by the Emergency Preparedness Supervisor for the VEGP General Manager through the Plant Training and Emergency Preparedness Manager. Under Administrative Procedure 00104, the corrective actions required outside the VEGP Emergency Preparedness Organization were tracked and closed out using the VEGP Action Tracking Program. Program improvements within the Emergency Preparedness Organization were tracked on an informal Action Item System maintained by the Emergency Preparedness Supervisor. The records and reports on drills were maintained for two years, while those on exercises were maintained for five years as stipulated in EPIP 91602-C, and the VEGP Emergency Plan. Implementation of drills and exercises is discussed under Section 7.1, below.

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

5.5.3 Review, Revision and Distribution of the Emergency Plan and Procedures

This area was reviewed pursuant to the requirements of 10 CFR 50.47(b)(10); Paragraph III.G. of Appendix E of 10 CFR 50; and guidance promulgated in Section II.P of NUREG-0654, Rev. 1.

The review and revision of the VEGP Emergency Plan and EPIPs was described in the VEGP Administrative Procedures 00402-C and 00051-C, and Section P of the VEGP Emergency Plan. The Emergency Preparedness Supervisor had the responsibility for the VEGP Emergency Plan and EPIPs, as shared by the Plant Training and Emergency Preparedness Manager. The responsibility for the Corporate Emergency Plan, EPIIs, and coordination of the VEGP Emergency Plan with State, local and Corporate plans lied with the Corporate Manager Nuclear Training and Emergency Preparedness. The VEGP Emergency Preparedness Supervisor and Corporate Nuclear Emergency Preparedness Manager was to review

all plans and procedures, at least on an annual basis, including letters of agreement with offsite agencies and contractors. In addition, the Emergency Preparedness Supervisor was to review all telephone numbers given in the EPIPs quarterly listings and update same when required.

Consistent with Administrative Procedures, the Emergency Preparedness Supervisor maintained files and records of Emergency Plans and respective EPIPs to document the following actions addressing the plan and procedures: required validation; tracking of changes; draft revisions; concurrences from other departments; resolving comments; and obtaining approval of the Plant Review Board.

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

5.5.4 Audit

This area was reviewed pursuant to the requirements of 10 CFR 50.54(t); Paragraph IV.G. of Appendix E to 10 CFR 50; and guidance promulgated in Section II.P of NUREG-0654, Rev. 1

In addition to reviews described in subsection 5.3.3 above, separate reviews were performed by the VEGP Quality Assurance Department as required by the plant Technical Specifications. The audit system used to implement these reviews was described in Quality Assurance Procedure-05-01, Rev. 18. Audits were required annually using either contractors, corporate office personnel, or personnel from Plant Hatch to perform technical reviews of the program.

This area was previously reviewed in detail and is documented in the Unit 1 EPIA Report and respective followup inspections.

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

6.0 Coordination With Offsite Groups

6.1 Offsite Agencies

This area was reviewed pursuant to the requirements of 10 CFR 50.47(b)(2) and (3); Paragraph IV.A of Appendix E to 10 CFR 50; and guidance promulgated in Sections II.B and C of NUREG-0654, Rev. 1.

Offsite agencies including the States of Georgia and South Carolina, Burke and Richmond Counties of Georgia, Aiken, Allendale and Barnwell Counties of South Carolina, the U.S. Department of Energy - Savannah River Plant (SRP), and their signed letters of agreement were appended to the VEGP Emergency Plan. The letters of agreement were current and valid. This area was reviewed in detail and summarized in the Unit 1 EPIA Report. The current review disclosed no significant changes in offsite support agency facilities, support capabilities, training programs, and interaction with the licensee.

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

6.2 General Public

6.3 News Media

These areas were reviewed pursuant to the requirements of 10 CFR 50.47(b)(7); Paragraphs IV.D and F of Appendix E to 10 CFR 50; and guidance promulgated in Section II.G of NUREG-0654, Rev. 1.

The subject areas were reviewed in detail during the VEGP Unit 1 EPIA and determined to be adequate. Current review of dissemination of public brochures, distribution of Emergency Radios, Operational Status of the Emergency Siren System, and interaction of licensee with the News Media disclosed no significant changes subsequent to Unit 1 EPIA.

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

7.0 Drills, Exercises, and Walkthroughs

7.1 Program Implementation

This area was reviewed pursuant to the requirements of 10 CFR 50.47(b)(14); Paragraph IV.F of Appendix E to 10 CFR 50; and guidance promulgated in Section II.N of NUREG-0654, Rev. 1.

Drills and exercises required by the Emergency Plan and respective implementing procedures were routinely performed. The drills and practice exercises were coordinated with the licensee's emergency response organization, State and local support groups, and the SRP, depending on the emergency program area tested. Inspection involved a detailed review of records and report files on drills and exercises performed by the licensee to implement training requirements and demonstrate compliance of such activities with the REP and respective implementing procedures discussed in Section 5.5.2, above. Inspection disclosed that following completion of an unannounced full activation drill performed by the licensee on March 9, 1988, the Emergency Preparedness Supervisor failed to submit a written report of the results thereof to the VEGP General Manager as required by Emergency Procedure EPIP-91602C. Section 4.18 of the subject procedure required that the Emergency Preparedness Supervisor shall submit a written report of emergency preparedness drills to the VEGP General Manager defining significant drill critique comments and respective corrective actions using Data Sheet 5 of Revision 4 of the referenced procedure.

The above finding was discussed in detail with cognizant licensee representatives prior to and during the appraisal exit interview. The inspector informed the licensee that failure to implement the reporting requirements of Emergency Procedure EPIP [illegible] is inconsistent with requirements of Unit 1, Appendix A, Technical Specification 6.7.1. The subject specification stated, in

part, that written procedures shall be implemented. The licensee acknowledged the finding, and committed to review administrative controls required to preclude its recurrence. Licensee representatives discussed other methods currently used to document and track drill and practice exercise findings which include entering such findings into an Action Item System dedicated to items requiring corrective action.

Violation: Failure to implement emergency procedure EPIP 91602-C requiring submission of a written report to the VEGP General Manager detailing drill critique findings and respective corrective actions (50-424/88-38-01). This item will be reviewed during future inspections.

8.0 Site Personnel Contacted

*J. Badgett	Manager, Training and Emergency Preparedness
D. Bloemendaal	Corporate Emergency Preparedness Specialist
*G. Buckhold	VEGP General Manager
H. Butterworth	Operations Superintendent
J. Carswell	Health Physics Foreman
R. Cislo	Supervisor Startup Unit 2
M. Covey	PASS Test Supervisor
A. Cure	Plant Health Physicist
*R. Folker	Quality Assurance Engineering Support Supervisor
M. Garg	Electrical Engineer
J. Gasser	Shift Supervisor
D. Haile	Shift Supervisor
S. Hargis	On-Shift Operations Supervisor (OSOS)
*R. Harris	Public Information Supervisor
B. Hennessey	Shift Supervisor
J. Hopins	OSOS
T. Journey	PASS Test Supervisor
S. Khera	Health Physics Technician
*I. Kochery	Health Physics Superintendent
M. Kurtzman	Health Physics and Chemistry Training Supervisor
R. Lee	Chemistry Supervisor
J. Lucot	Health Physics Supervisor
*L. Mayo	Senior Emergency Preparedness Specialist
*J. McKnight	Health Physics/Chemistry Technical
T. Neufang	Methods and Training Specialist
*L. Nickun	Regulatory Compliance Supervisor
M. Odom	PASS Specialist
C. Peters	Health Physics Foreman
*K. Pointer	Senior Plant Engineer
*J. Roberts	Emergency Preparedness Supervisor
*P. Rushton	Training & Emergency Preparedness Manager
J. Sills	Chemistry Supervisor
*D. Smith	Construction Engineer
S. Waldrup	HVAC Engineer
J. Williams	OSOS

NRC Resident Inspector

*R. Aiello

*Attended Exit Interview

9. Action On Previous Inspection Findings

a. (Rescinded) Apparent Violation 50-424/87-32--01, 50-425/87-23-01: EPIP-N091001-C is inadequate for implementing REP due to inconsistency between the Plan and Procedure addressing EAL.

Based upon a detailed review of the EALs, the subject procedure, and Tables D-1 and D-2 of the VEGP REP, the apparent violation was withdrawn.

b. (Closed) Violation 50-424/87-32-02, 50-425/87-23-03: Failure to Classify a Security Event in Accordance with the VEGP REP.

Inspection confirmed that all corrective actions committed to by the licensee were implemented as required, namely: initiation of management training regarding recognition and handling of suspected explosive devices; and evaluation of emergency classification of security events regarding suspected explosive devices.

c. (Closed) Inspector Followup Item (IFI) 50-424/87-32-03, 50-425/87-23-03: Verify Audibility of Alarms in High Noise Areas (See Also: 87-EP-01 and 79-BU-18).

Inspection confirmed that the volume and clarity of the plant public address system (PA) was adequate to assure audibility of emergency alarms, announcements, and routine personnel paging in high noise areas. The inspector, accompanied by a cognizant licensee representative, assessed the effective audibility of the PA system on the plant turbine decks and areas immediately below the turbines. Consistent with industrial hygiene practices and plant safety requirements, the assessment was conducted using approved ear plugs.

d. (Closed) Violation 50-424/87-23-16, 50-425/87-23-06: Failure to Provide Training to Emergency Response Personnel in Accordance with the REP.

A detailed inspection of plant training records, course materials, and respective course examination results confirmed that personnel identified as lacking specified training were trained as required.

e. (Closed) Bulletin 87-EP-01 (78-BU-18): Verify Audibility of Alarms in High Noise Areas.

The inspector evaluated and verified the audibility of emergency alarms in designated high noise areas in Unit 1 as discussed above.

10. Exit Interview

The inspection scope and findings were summarized on August 19, 1988, with those persons indicated in Paragraph 8, above. The inspector described the areas evaluated and discussed in detail each item listed below.

These specific findings are characterized as Improvement and Incomplete Items. Incomplete Items are findings for which action is not completed but the need for required completion is recognized and agreed upon by the licensee. Improvement Items are those findings identified by the inspectors which require review and consideration by the licensee to improve the effectiveness of the Emergency Preparedness program and its implementation. The licensee has agreed to evaluate these items and will take followup actions as determined to be appropriate. One violation specific to Unit 1 was identified regarding the licensee's failure to implement an EPIP which requires submission of a written report to the VEGP General Manager regarding exercise and drill critique findings and required corrective actions related thereto.

The licensee did not identify as proprietary any of the materials provided to or reviewed by the inspectors during this appraisal. No dissenting comments were expressed by the licensee.

Item No.	Type	Description
50-425/88-42-01	Improvement	Reviewing Corporate Emergency Organization staffing ensure that personnel assignments are correct, and that an adequate number of personnel are available to fill key primary and alternate positions.
50-425/88-42-02	Incomplete	Completion of installation and testing of Unit 2 Post Accident Sampling System.
50-425/88-42-03	Incomplete	Completion of installation and operation of instruments, systems and equipment required to conduct sampling and analysis of liquid, gas, and particulate effluents.
50-425/88-42-04	Incomplete	Completion of installation, calibration, and testing of Unit 2 area and process monitors.

50-425/88-42-05	Improvement	Ensuring that Emergency Vehicle No. 6 is included in the monthly checklist and that routine test be conducted as required.
50-425/88-42-06	Improvement	Ensuring that communication test forms are properly completed as required by the respective procedure, and that resolution of any and all problems and retests related thereto are fully documented.
50-425/88-42-07	Incomplete	Completion of revision of Section H-1 of the REP to define the correct procedures requiring actuation of the TSC immediately upon activation of that facility.
50-425/88-42-08	Incomplete	Incorporation of Unit 2 specific effluents monitor information into the VIBRANT program code.
50-425/88-42-09	Improvement	Ensuring that personnel trained in offsite dose assessment are cognizant of use of default isotopic release rate data defined in EPIP-91304-C.
50-425/88-42-10	Improvement	Ensuring that personnel trained in offsite dose assessment are fully cognizant of interpretation of wind direction reading greater than 360 degrees.
50-425/88-42-11	Improvement	Ensuring that reference ID Nos. for radioiodines listed in Vibrant Worksheet 1 of EPIP-91304-C are consistent.
50-425/88-42-12	Improvement	Providing guidance on the use of POPDOSE defined in EPIP-91304-C.

50-425/88-42-13	Improvement	Reviewing recommended protective actions for whole body doses greater than five rem, and thyroid doses greater than 25 rem promulgated in Table 1, Item 5 of EPIP-91305-C.
50-425/88-42-14	Incomplete	Completion of revision of Chemistry Procedures 35611-C and 35614-C to reflect Unit 2 PASS valve numbers.
50-424/88-38-01	Violation	Failure to Implement Emergency Procedure EPIP 91602-C requiring submission of a written report to the VEGP General Manager detailing drill critique findings and respective corrective actions.

11. Acronyms and Initialisms

ALARA	As Low As Reasonably Achievable
AOP	Abnormal Operating Procedure
ARM	Area Radiation Monitor
ARP	Alarm Response Procedure
CEC	Corporate Emergency Center
CFR	Code of Federal Regulations
CR	Control Room
EAL	Emergency Action Level
ED	Emergency Director
EMT	Emergency Medical Technician
ENC	Emergency News Center
ENS	Emergency Notification System
EOC	Emergency Operations Center
EOF	Emergency Operations Facility
EOP	Emergency Operation Procedure
EPIA	Emergency Preparedness Implementation Appraisal
EPIP	Emergency Plan Implementation Procedure
EP	Emergency Preparedness
EPZ	Emergency Planning Zone
ERF	Emergency Response Facilities
ERO	Emergency Response Organization
FSAR	Final Safety Analysis Report
GPC	Georgia Power Company
HEPA	High Efficiency Particulate Air
HP	Health Physics

INPO	Institute of Nuclear Power Operations
NOUE	Notification of Unusual Event
NRC	U.S. Nuclear Regulatory Commission
OSC	Operations Support Center
OSOS	On-shift Operations Supervisor
PASS	Post Accident Sampling System
RCS	Reactor Coolant System
RET	Radiological Emergency Team
TSC	Technical Support Center
VEGP	Vogtle Electric Generation Plant