

13. CONDUCT OF OPERATIONS

13.3 Emergency Planning

The U.S. Nuclear Regulatory Commission (NRC) evaluates emergency plans for nuclear power reactors to determine whether there is reasonable assurance that adequate protective measures can and will be taken in the event of a radiological emergency. An early site permit (ESP) application, pursuant to Title 10, Section 52.17(b), of the *Code of Federal Regulations* (10 CFR 52.17(b)), must identify any physical characteristics unique to the proposed site that could pose a significant impediment to the development of emergency plans. The application must also describe the contacts and arrangements the applicant has made with local, State, and Federal governmental agencies with emergency planning responsibilities. In addition, the application may propose major features of emergency plans, as described in Supplement 2 to NUREG-0654/FEMA-REP-1, Revision 1, "Criteria for Preparation and Evaluation of Radiological Emergency Response Plans and Preparedness in Support of Nuclear Power Plants—Criteria for Emergency Planning in an Early Site Permit Application—Draft Report for Comment" (hereafter referred to as Supplement 2), issued April 1996, or may propose complete and integrated emergency plans.

In Section 13.3, "Emergency Planning," of the site safety analysis report (SSAR), the applicant presents the major features of its proposed emergency response plan pursuant to 10 CFR 52.17(b)(2)(i). Because the proposed ESP site footprint consists of a portion of the existing North Anna Power Station (NAPS) site, and is located immediately adjacent to NAPS, very little distinction exists between the NAPS site and the ESP site for purposes of emergency planning. The ESP application takes advantage of the emergency planning resources, capabilities, and organization that currently exist at the NAPS site.

The ESP applicant, Dominion Nuclear North Anna, LLC (Dominion) is an indirect, wholly-owned subsidiary of Dominion Resources, Inc. (Dominion Resources). Virginia Electric and Power Company (Virginia Power, formerly VEPCO), which operates the existing nuclear units on the NAPS site (i.e., North Anna Units 1 and 2), is also a wholly-owned subsidiary of Dominion Resources. If the applicant were to proceed with the development of new reactor units at the ESP site, it would enter into an arrangement with Virginia Power to coordinate and implement an integrated emergency plan, which in effect, would extend the existing emergency planning and preparedness activities to the new reactor unit(s). The related offsite aspects of emergency planning would remain essentially unchanged.

The staff, in consultation with the Federal Emergency Management Agency (FEMA), has reviewed the applicant's proposed emergency plan, applicable portions of the North Anna Emergency Plan (NAEP), the Commonwealth of Virginia Radiological Emergency Response Plan (COVRERP), county radiological emergency response plans (RERPs), responses to requests for additional information (RAIs), and generally available reference materials in accordance with NRC Review Standard (RS)-002.

Because the applicant has elected to present and seek NRC acceptance of the major features of emergency plans, the staff's evaluation addresses, in order, the three aspects of such a submission. The following identifies the section of this safety evaluation report (SER) in which each aspect is discussed:

- (1) identify physical characteristics that could pose a significant impediment to the development of emergency plans (SER Section 13.1.1)
- (2) describe contacts and arrangements made with local, State, and Federal governmental agencies with emergency planning responsibilities (SER Section 13.3.2)
- (3) propose major features of the emergency plans (SER Section 13.3.3)

The applicant identified Appendix E to 10 CFR Part 50 as applicable to the major features it proposed. Appendix E, however, applies to the “major features” option of 10 CFR 52.17(b)(2) only to the extent that it requires description of the “essential elements of advance planning that have been considered.” See 10 CFR Part 50, Appendix E, Section III. The staff has made findings approving the applicant’s identification of Appendix E as one of the regulatory requirements applicable to the staff’s review of the major features proposed by the applicant. These findings, which are set forth throughout section 13.3.3 of this DSER, are limited to those particular portions of Appendix E that the staff considered during the course of the staff’s review of a particular major feature. More importantly, any staff finding that a proposed major feature complies with a particular requirement of Appendix E is limited to the description of the major feature approved by the staff.

Notwithstanding any staff approval of a proposed major feature in this DSER, all features of the emergency plan requiring description pursuant to Appendix E, but which are not described in the ESP application, will be reviewed in the context of a COL or operating license (OL) application. The staff will review complete and integrated emergency plans submitted in a COL or OL application to determine whether they comply with such requirements, as well as the requirements of 10 CFR 50.47.

The staff’s evaluation of the proposed major features of the applicant’s emergency plans parallels the major features and planning standards in Supplement 2.

13.3.1 Significant Impediments to the Development of Emergency Plans

13.3.1.1 Technical Information in the Application

The applicant stated in SSAR Section 13.3.2, “Major Features Emergency Plan,” that the major features emergency plan (i.e., Section 13.3 of the SSAR) takes advantage of the emergency planning resources, capabilities, and organization that Virginia Power has already established and currently maintains at the NAPS site. In addition, SSAR Section 13.3.2.2, “Major Features of the Emergency Plan,” states that the ESP site is adjacent to a preexisting nuclear facility with existing State and local emergency plans. Hence, the SSAR relies on and refers to the information contained in these existing plans.

SSAR Section 13.3.2.1, “Identification of Physical Characteristics,” states that the applicant used a preliminary analysis of the evacuation times, utilizing the evacuation time estimate (ETE) methods recommended in Section II of Supplement 2 to identify any physical characteristics unique to the ESP site that could pose a significant impediment to the development of emergency plans. This estimate included seasonal recreational visitors around the Lake Anna and school populations. The most recent ETE, IEM/TEC01-220, “Evacuation Time Estimates

for the North Anna Power Station and Surrounding Jurisdictions,” dated November 2, 2001, describes the analysis methods and results.

SSAR Section 13.3.2.1.2, “Evacuation Time Estimate Analysis,” states that the most recent ETE for the NAEP is based on Census 2000 data and applies to the ESP site. The total permanent resident population within the 10-mi plume exposure pathway emergency planning zone (10-mi EPZ) is 20,292. The ETE considers permanent residents, transients, and persons in special facilities, including school populations (which are the only institutional populations within the 10-mi EPZ). Emergency traffic is expected to flow away from the ESP site, and the road network can adequately accommodate anticipated vehicular traffic. SSAR Section 13.3.2.2.j.3, “Evacuation Time Estimates,” further states that the ETE results in evacuation time estimates that are based on different affected population areas and weather conditions, with estimates ranging from 85 to 105 minutes.

Appendix 10.8 to the NAEP incorporates the November 2001 ETE cited above. The appendix describes the methods used to obtain current population data and to produce the ETES, and it reports the updated population figures, road network information, and ETES. The evacuation scenarios that were modeled were based on peak season nighttime population counts (representing the worst case), and the analysis noted no significant traffic congestion in any of the scenarios evaluated.

In addition, the ETE includes maps which show various features of the 10-mi EPZ. Figure 1 of the ETE, “Map of the Area around North Anna Power Station,” which identifies the transportation networks and political boundaries, shows the NAPS site and the 10-mi EPZ area. Figure 2, “Map of the Protective Action Zones for North Anna Power Station,” Figure 3, “Permanent Resident Population Distribution Based on 2000 Census Data by Sector and Ring,” and Figure 6, “Evacuation Roadway Network,” show the political boundaries. Figures 1, 2, and 3 also show the location of the NAPS site. Figures 1, 2, 3, and 6 identify the transportation networks, topographical features, and political boundaries. Figure 2 shows evacuation subareas (i.e., protective action zones [PAZs]). Section 1.2, “Emergency Planning Zone,” of the ETE states the following basis for the PAZs:

Twenty-five zones have been established for the NAPS 10-mile EPZ. To the extent feasible, the zones were selected based on existing political boundaries to enhance direction and coordination of the public in the affected area. The demarcation of the zones are roughly 2, 5, and 10 miles from the nuclear facility. This permits flexibility and selectivity in application of protective actions. Figure 2 is a map of the PAZs for NAPS. Attachment 1 contains boundary descriptions of the PAZs within the 10-mile emergency planning zones for NAPS.

In RAI 13.3-9, the staff asked the applicant to specifically state whether it identified any physical characteristics unique to the proposed ESP site from the ETE or any other source or analysis that could pose a significant impediment to the development of emergency plans for the site. In its response, the applicant stated that it had not identified any physical characteristics unique to the North Anna ESP site that could pose a significant impediment to the development of emergency plans for the site, and that the ETE did not identify any areas of congestion during the evacuation evaluations.

In SSAR Section 13.3.2, the applicant stated that the major features emergency plan (i.e., SSAR Section 13.3) takes advantage of the emergency planning resources, capabilities, and organization that Virginia Power has already established and currently maintains at the NAPS site. In RAI 13.3-3, the staff asked the applicant whether it wished to incorporate applicable sections of the existing NAEP into the application, to the extent that the NAEP supports the emergency planning description in the application. In its response, the applicant confirmed that it had incorporated applicable sections of the existing NAEP into the application.

In RAI 13.3-11, the staff asked the applicant to address whether the increases in population during the term of an ESP could pose a significant impediment to the development of emergency plans. In its response, the applicant stated that the ETE identified no areas of congestion, and that travel time is relatively inelastic with respect to anticipated changes in road capacity. The applicant provided population projections in SSAR Section 2.1.3, and stated that any population increase is projected to be gradual over time. Planning and consideration of new roads or modifications of existing roads and intersections could offset any large influx of new permanent or transient populations within the 10-mi EPZ.

13.3.1.2 Regulatory Evaluation

The applicant stated in SSAR Section 13.3.1, "Emergency Planning Overview," that SSAR Section 13.3 presents information required by 10 CFR 52.17(b)(1) regarding identification of potential impediments to emergency planning. The staff finds that the applicant identified the applicable regulatory requirement. In its review of the application, the staff considered the regulatory requirements in 10 CFR 52.17(b)(1), which mandate that the applicant for an ESP identify physical characteristics unique to the proposed site, such as egress limitations from the area surrounding the site, that could pose a significant impediment to the development of emergency plans. The staff further considered 10 CFR 52.18, which requires consultation with FEMA to determine whether the information required of the applicant by 10 CFR 52.17(b)(1) demonstrates that no significant impediment to the development of emergency plans exists. Supplement 2 and RS-002 provide guidance concerning the review and evaluation of emergency planning information provided in an ESP application.

Supplement 2 defines a significant impediment as a physical characteristic or combination of physical characteristics that would pose major difficulties for an evacuation or the taking of other protective actions. Such unique physical characteristics may be identified by performing a preliminary analysis of the time for evacuating various sectors and distances within the 10-mi EPZ for transient and permanent populations, noting major difficulties for an evacuation (e.g., significant traffic-related delays) or the taking of other protective actions.

According to RS-002, the applicant should address factors, such as the availability of adequate shelter facilities, local building practices and land use (e.g., outdoor recreation facilities, including camps, beaches, hunting or fishing areas), and the presence of large institutional or other special needs populations (e.g., schools, hospitals, nursing homes, prisons), when identifying significant impediments to the development of emergency plans. Any ETE or other identification of physical impediments should include the latest population census numbers and the most recent local conditions. In addition, the applicant should describe the proposed means for resolving any impediments identified.

13.3.1.3 Technical Evaluation

In SSAR Section 13.3.2.1.2, the applicant stated that the road network surrounding the NAPS site, which includes the ESP site, can adequately accommodate anticipated vehicular traffic. This conclusion is based on the most recent ETE, which uses Census 2000 data. SSAR Section 13.3.2.2.2.j.3 states that the resulting ETEs are based on different population areas and weather conditions, and range from 85 to 105 minutes.

In SSAR Section 13.3.2, the applicant stated, in part, that the major features emergency plan (i.e., SSAR Section 13.3) takes advantage of the emergency planning resources, capabilities, and organization that Virginia Power has already established and currently maintains at the ESP site. In response to RAI 13.3-3, the applicant confirmed that it had incorporated applicable sections of the existing NAEP into the application, to the extent that the NAEP supports the emergency planning descriptions in the application. This includes the ETE contained in Appendix 10.8 to the NAEP. As a result, the staff reviewed portions of the NAEP as part of its review of the ESP application, and bases its evaluation of the emergency planning information in the application on both SSAR Section 13.3 and relevant portions of the NAEP, including the ETE.

The ESP site footprint consists of a portion of the NAPS site, and is located near the existing NAPS reactors. The boundary of the ESP site is entirely within the boundary of the existing NAPS site. The staff has not identified any significant differences between the major features proposed in the SSAR and the major features discussed in existing plans and relied on in the SSAR. The staff finds that, for purposes of identifying physical characteristics that could pose a significant impediment to developing emergency plans, there is no distinction between the existing NAPS site and the ESP site. Because the existing NAPS site includes the ESP site, the staff finds that the applicant's use of the ETE for the NAPS site in the ESP application is acceptable and appropriate.

In RAI 13.3-11, the staff asked the applicant to address possible changes to this determination, as it relates to the ESP site, including the duration of the ESP itself. In its response, the applicant stated that the ETE identified no areas of congestion, and that travel time is relatively inelastic with respect to anticipated changes in road capacity. Further, SSAR Section 2.1.3 provides population projections and projects that population increase will be gradual over time. Planning and consideration of new roads or modifications of existing roads and intersections could offset any large influx of new permanent or transient populations within the 10-mi EPZ.

The applicant stated, in response to RAI 13.3-9, that it had not identified any physical characteristics unique to the North Anna ESP site that could pose a significant impediment to the development of emergency plans for the ESP site, and that the ETE identified no areas of congestion during the evacuation evaluation. The ETE, which reflects Census 2000 data, considers permanent residents, transients, and persons in special facilities, including school populations. Population increases over the duration of the ESP are projected to be gradual, and new or modified roads and intersections could offset any large influx of new permanent or transient populations within the 10-mi EPZ. Accordingly, the staff finds that the applicant's conclusion that it found no significant impediments is acceptable, and that no physical characteristics unique to the proposed ESP site have been identified that could pose a significant impediment to the development of emergency plans for the ESP site.

13.3.1.4 Conclusions

As discussed above, the applicant has shown through use of the ETE that there are no physical characteristics unique to the proposed ESP site that could pose a significant impediment to the development of emergency plans. Based on its review as set forth above, the staff concludes that the information the applicant provided is consistent with the guidelines in RS-002 and Supplement 2. Therefore, the information is acceptable and meets the requirements of 10 CFR 52.17(b)(1) and 10 CFR 52.18.

13.3.2 Contacts and Arrangements with Local, State, and Federal Agencies

13.3.2.1 Technical Information in the Application

SSAR Section 13.3.2.2 states that the ESP site is adjacent to a preexisting nuclear facility with existing State and local emergency plans. The SSAR, therefore, relies on and refers to the information contained in these existing plans. The applicant did not identify any significant differences between the major features of emergency plans proposed in the application and the major features discussed in existing plans and, therefore, relied on this information in the application. SSAR Section 13.3.3, "Contacts and Arrangements," provides a list of 19 local, State, and Federal government agencies with emergency planning responsibilities in support of the NAPS. In addition, the applicant stated the following:

Dominion provided an overview of the ESP project to DEM [Commonwealth of Virginia Department of Emergency Management (VDEM)] staff members on February 20, 2003 and to risk jurisdiction coordinators of emergency management on March 24, 2003. The NRC licensing process, emergency preparedness requirements for ESP applicants, and Dominion's schedule for preparing and submitting this ESP application [for North] Anna were described at both meetings. During the discussions regarding the ESP process, no impediment to pursuing an ESP was identified by Commonwealth of Virginia or risk jurisdiction response organizations.

SSAR Section 13.3.2.2.2.a.6, "Contacts and Arrangements," provides a nearly identical statement to the above. SSAR Section 13.3.2.2.2.a.6 further states that the existing licensed facilities (i.e., North Anna Units 1 and 2) maintain, within the NAEP, letters of agreement with the U.S. Department of Energy (DOE), Commonwealth of Virginia agencies, and various local agencies.

In RAI 13.3-1, the staff asked the applicant to document its arrangements with local, State, and Federal governmental agencies with emergency planning responsibilities that specifically address the impacts of an additional reactor(s) at the ESP site, in particular, how these arrangements address any impact that an additional reactor (or reactors) at the North Anna site would have on government agency emergency planning responsibilities. The staff also asked the applicant to provide acknowledgment by the agencies of these proposed expanded responsibilities (if any). In its response, the applicant provided letters of agreement from the 19 agencies with which Dominion Resources has existing agreements for the NAPS, which had been revised to specifically acknowledge the agencies' awareness of the ESP application for the NAPS site. In addition, the letters stated that the existing agency arrangements would apply to a prospective additional reactor(s) at the NAPS site.

13.3.2.2 *Regulatory Evaluation*

The applicant stated in SSAR Section 13.3.1 that SSAR Section 13.3 presents information required by 10 CFR 52.17(b)(3) regarding descriptions of contacts and arrangements the applicant has made with local, State, and Federal governmental agencies with emergency planning responsibilities. The staff finds that the applicant identified the applicable regulatory requirement.

In its review of the application, the staff considered the regulatory requirements in 10 CFR 52.17(b)(3), which mandate, in part, that an ESP application describe the contacts and arrangements made with local, State, and Federal governmental agencies with emergency planning responsibilities. Supplement 2 and RS-002 provide guidance concerning the review and evaluation of emergency planning information provided in an ESP application.

Supplement 2 states that the description of contacts and arrangements should include the name and location of the organization contacted, the title and/or position of the person(s) contacted, and the role of the organization in emergency planning. The evaluation criteria in Supplement 2, Section V, provide additional guidance, which applies to the submission of emergency plans under the major features option of 10 CFR 52.17(b)(2)(i).

According to RS-002, for an operating reactor site, the ESP application should clearly indicate the impact of applying an existing emergency preparedness program element to the expanded use of the site, including addressing any necessary changes to the program in support of a new reactor(s). For example, letters of agreement reflecting contacts and arrangements made with local and State governmental agencies with emergency planning responsibilities might need revision to reflect the anticipated presence of an additional reactor(s) at the site. Such revised letters of agreement should reflect any impact an additional reactor(s) would have on the agencies' emergency planning responsibilities, and should include acknowledgment by the agencies of the proposed expanded responsibilities. The use of separate correspondence would also be acceptable. If the applicant cannot make arrangements with local, State, or Federal governmental agencies with emergency planning responsibilities, for whatever reason, the applicant should discuss its efforts to make such arrangements, along with a description of any compensatory measures it has taken or plans to take because of the lack of such arrangements.

13.3.2.3 *Technical Evaluation*

According to SSAR Section 13.3.3, the applicant conducted two meetings with the State and the risk jurisdictions (Hanover, Louisa, Orange, Spotsylvania, and Caroline Counties) to provide an overview of the ESP process for the NAPS site.¹ The applicant further stated that during the meetings, neither the State nor the risk jurisdiction response organizations identified any impediment to pursuing an ESP.

The applicant has provided current letters of agreement that describe the contacts and arrangements it has made with local, State, and Federal governmental agencies with emergency planning responsibilities and which address their receipt and understanding of the

¹ Risk jurisdictions are counties, any part of which lie within the 10-mi EPZ.

ESP application for the NAPS site. These letters adequately describe the names and locations of the organizations contacted, the titles and/or positions of the persons contacted, and the roles of the organizations in emergency planning for the ESP site. The letters of agreement also describe the arrangements for the specific support that would be provided, stating that the existing arrangements would apply to a prospective additional reactor(s) at the ESP site. Accordingly, the staff finds that the revised letters of agreement provided in response to RAI 13.3-1 are acceptable. Further, the staff finds that the Dominion presentations to the State and risk jurisdictions, combined with the revised letters, adequately reflect an understanding, acknowledgment, and agreement by offsite agencies of their specific responsibilities with respect to construction and operation of a prospective additional reactor(s) at the NAPS site under an ESP. Sections 13.3.3.2, 13.3.3.3, 13.3.3.4, 13.3.3.7, 13.3.3.10, 13.3.3.11, and 13.3.3.13 of this SER provide additional descriptions of contacts and arrangements in support of the NAPS site that are relevant to the application.

13.3.2.4 Conclusions

As discussed above, the application provides an acceptable description of contacts and arrangements made with local, State, and Federal governmental agencies with emergency planning responsibilities. Based on its review, as described above, the staff concludes that the information the applicant provided is consistent with the guidelines in RS-002 and Supplement 2. Therefore, the information is acceptable and meets the requirements of 10 CFR 52.17(b)(3).

13.3.3 Major Features of the Emergency Plans

13.3.3.1 Emergency Planning Zones

13.3.3.1.1 Technical Information in the Application

SSAR Section 13.3.2 states that the proposed emergency plan takes advantage of the emergency planning resources, capabilities, and organization that Virginia Power has already established and currently maintains at the NAPS site. The applicant would extend the existing emergency planning and preparedness activities to include the proposed new unit(s). SSAR Section 13.3.2.2 states that the ESP site is adjacent to a preexisting nuclear facility with existing State and local emergency plans. The SSAR, therefore, relies on and refers to information contained in these existing plans. There are no significant differences between the major features proposed in the application and the major features discussed in existing plans and relied on in the application.

SSAR Section 13.3.2.2.1, "Emergency Planning Zones," states that the applicant has developed the emergency plan assuming a plume exposure pathway EPZ of about 16 kilometers (10 miles) in radius (10-mi EPZ), and an ingestion pathway EPZ of about 80 kilometers (50 miles) in radius (50-mi EPZ). The 10-mi and 50-mi EPZs identified in the ESP application are the same as those in the NAEP.

SSAR Section 13.3.2.2.1 further states that the size of these areas is subject to change if warranted by later analyses, design-specific factors, and legislation or regulatory initiatives. In SSAR Section 13.3.4, "Conformance with NUREG-065[4], Supplement 2," the applicant stated that the possible application of analyses performed subsequent to NUREG-75/014, "Reactor

Safety Study: An Assessment of Accident Risk in U.S. Commercial Nuclear Power Plants,” issued October 1975 (known as the WASH-1400 report), design-specific factors, and legislative or regulatory initiatives may affect the size of the 10-mi and 50-mi EPZs.

Section 5.4.6 of the NAEP identifies Louisa and Spotsylvania Counties as directly involved in the NAEP, since they include the majority of the area within the 10-mi EPZ. NAEP Table 5.3 lists the counties and cities within the 50-mi EPZ. NAEP Section 6.3, “Protective Actions,” states that no hospitals, prisons, or nursing homes currently exist within the 10-mi EPZ (shown in NAEP Figure 6.1). Appendix 10.8 to the NAEP incorporates by reference the ETE. ETE Section 1.2, “Emergency Planning Zone,” describes the 25 PAZs that the NAPS licensee has established within the 10-mi EPZ. In demarcating these zones, the NAPS licensee used prominent physical features, either natural (e.g., rivers) or manmade (e.g., roads) to make the PAZs readily comprehensible to the area’s residents in the event of a radiological emergency. The demarcations of the zones are roughly 2, 5, and 10 miles from the nuclear facility, which permits flexibility and selectivity in the application of protective actions.

ETE Section 4.4, “Estimates for Special Facilities,” states that the only special facilities located within 16 kilometers (10 miles) of the NAPS site are the schools identified in ETE Table 7, “School Population and Transportation.” ETE Table 7 lists seven schools, with a total day population of 6471. ETE Section 3.0, “ETE Data and Methodology,” indicates that the applicant defined the evacuation network based on the information documented in and provided through the Dominion Resources public outreach program, which includes calendars distributed by the company and information available on the company’s Web site.

13.3.3.1.2 Regulatory Evaluation

SSAR Section 13.3.2.2 presents the major features of the applicant’s emergency plan. The applicant stated that it prepared the information presented in SSAR Section 13.3.2.2 in accordance with 10 CFR 52.17(b)(2)(i) and Appendix E to 10 CFR Part 50, and considered the guidance in Supplement 2. SSAR Section 13.3.2.2.2 states that Supplement 2 presents planning standards and evaluation criteria applicable to a major features emergency plan. The staff finds that the applicant identified the regulatory requirements and guidance applicable to the proposed major features of emergency plans for an ESP application.

In its review of the application, the staff considered the regulatory requirements in 10 CFR 52.17(b)(2)(i) and 10 CFR 52.18. In addition, the staff considered the regulatory requirements in 10 CFR 50.33(g), 10 CFR 50.47(c)(2), and 10 CFR Part 50, Appendix E, Sections I, III and IV in its review of the size and configuration of the EPZs. According to 10 CFR 52.17(b)(2)(i), an applicant for an ESP may propose major features of emergency plans for NRC review and approval, in consultation with FEMA, in the absence of complete and integrated emergency plans. Under 10 CFR 52.18, after consultation with FEMA, the NRC must determine whether the major features of emergency plans submitted under 10 CFR 52.17(b)(2)(i) are acceptable. RS-002 and Supplement 2 provide guidance concerning the review and evaluation of emergency planning information provided in an ESP application. Supplement 2 also provides specific evaluation criteria for major features of emergency plans, including those which apply to determining the size and configuration of the EPZs.

Section III.A of Supplement 2 states that an ESP applicant choosing the option of proposing major features of the emergency plans should give special emphasis to the exact size of the

EPZs. Generally, the 10-mi and 50-mi EPZs consist of an area about 16 kilometers (10 miles) and 80 kilometers (50 miles) in radius, respectively. Applicants should determine the exact size and configuration of the EPZs with respect to local emergency response needs and capabilities, since the EPZs can be affected by such conditions as demography, topography, land characteristics, access routes, and jurisdictional boundaries.

13.3.3.1.3 Technical Evaluation

SSAR Section 13.3.2 states that the ESP emergency plan takes advantage of the existing NAEP, and that the applicant would extend the NAEP to include the proposed new unit(s). As such, this extension would include the existing NAPS 10-mi and 50-mi EPZs. The ESP site footprint consists of a portion of the NAPS site, and is located near the existing NAPS reactors. The boundary of the ESP site is entirely within the boundary of the existing NAPS site. Therefore, the staff finds that for purposes of determining the exact size and configuration of the EPZs in relation to local emergency response needs and capabilities, there is no distinction between the NAPS site and the ESP site. As such, the staff finds that use of the existing NAPS 10-mi and 50-mi EPZs for the ESP site is appropriate and acceptable. The ESP application, the NAEP (including calendars distributed to the public), and the ETE reflect the existing NAPS 10-mi and 50-mi EPZs.

SSAR Sections 13.3.2.2.1 and 13.3.4 state that the size of the EPZs may be subject to change as a result of design-specific factors and legislative or regulatory initiatives. The staff did not consider the possibility of change in the size requirements for the 10-mi and 50-mi EPZs essential to its review. Rather, the staff applied current requirements. A COL or OL applicant should address any such policy or regulatory changes, as well as design-specific matters, and the staff will determine compliance with the requirements in these areas during a COL or OL review.

As stated in NAEP Section 6.3, no hospitals, prisons, or nursing homes are located within the 10-mi EPZ. ETE Section 3.0 further states that the applicant defined the evacuation network based on information documented in calendars distributed as part of a public outreach program. The calendars provide an area map and a listing of PAZs and evacuation assembly centers (EACs), which is consistent with the information in the application and the ETE.

ETE Section 1.2 states that the PAZs established within the 10-mi EPZ use prominent physical features, either natural or manmade, to outline the PAZ boundaries. In addition, the applicant selected the PAZs based on existing political boundaries. The staff, through its review of the ETE, did not identify any 10-mi EPZ boundaries which run through the middle of schools or hospitals, or that arbitrarily carve out small portions of governmental jurisdictions. As such, the staff finds that the size and configuration of the 10-mi and 50-mi EPZs reflect local emergency response needs and capabilities, as they are affected by such conditions as demography, topography, land characteristics, access routes, and jurisdictional boundaries. In addition, the staff finds that the applicant has adequately described the size and configuration of the EPZs.

13.3.3.1.4 Conclusions

As discussed above, the applicant has proposed a 10-mi plume exposure pathway EPZ and a 50-mi ingestion pathway EPZ, both of which reflect local emergency response needs and capabilities. Based on its review, as set forth above, the staff concludes that the proposed

major feature, which addresses the size and configuration of the EPZs, is consistent with the guidelines in RS-002 and Supplement 2. Therefore, it is acceptable and meets the requirements of 10 CFR 50.33(g), 10 CFR 50.47(c)(2), 10 CFR 52.17(b)(2)(i), 10 CFR 52.18, and 10 CFR Part 50, Appendix E, Sections I, III and IV, insofar as it describes the essential elements of advanced planning that have been considered for the emergency planning zones, as set forth above.

13.3.3.2 Assignment of Responsibility—Organization Control (Supplement 2, Major Feature A)

13.3.3.2.1 Technical Information in the Application

SSAR Section 13.3.2.2.2.a, "Assignment of Responsibility (Organization Control)," identifies organizations that are intended to be part of the overall emergency response organization (ERO). This section describes the primary responsibilities for the risk jurisdiction response organizations, the Commonwealth of Virginia, the Federal government, and private sector organizations. As stated in SSAR Section 13.3.2.2.2.a.1, "Local Response Organizations," the elected officials of local governments have responsibility for radiological emergency response within their jurisdictions. The existing county RERPs apply to radiological emergencies within the localities caused by events at the NAPS site and would apply to events at the ESP site. SSAR Section 13.3.2.2.2.a.5, "Major Elements of Emergency Response: Functions and Responsibilities," as well as the COVRERP and county RERPs, also address the emergency response functions and responsibilities. The RERPs detail the legal bases for these authorities.

SSAR Section 13.3.2.2.2.a.2, "Commonwealth of Virginia Response Organization," states that the Commonwealth of Virginia's organization for responding to radiological emergencies is based on normal governmental structures and channels of communication. The Governor, in the role of Director of Emergency Management, directs the emergency response through the State coordinator of emergency management. The State coordinator of emergency management coordinates the overall response, and the Virginia Department of Health (VDH) provides technical advice and assistance on radiological accident assessment, protective action, radiological control, and radiological monitoring.

SSAR Section 13.3.2.2.2.a.3, "Federal Response Organizations," states that, in the event an emergency classification is made pursuant to the emergency action levels (EALs), Dominion would make notifications, as described in SSAR Section 13.3.2.2.2.e, "Notification Methods and Procedures." Further, Dominion personnel would maintain contact with the NRC to ensure that the Federal government has access to accurate information about and assessment of the emergency. SSAR Section 13.3.2.2.2.c, "Emergency Response Support and Resources," describes the details of Federal assistance.

SSAR Section 13.3.2.2.2.a.4, "Private Sector Response Organizations," states that Dominion would obtain support from the cognizant architect/engineer, the nuclear steam supply system vendor, and other consultants and vendors, as appropriate, to respond during the emergency and recovery operations. Experienced personnel with in-depth expertise in plant design, engineering, and construction would be involved to aid in solving critical technical problems. The applicant stated that a COL applicant would identify these consultants and vendors, as necessary, in the COL application. Private sector response may also include radiological laboratories and other facilities and organizations, as described in SSAR Section 13.3.2.2.2.c.

SSAR Section 13.3.2 states that the major features emergency plan takes advantage of the emergency planning resources, capabilities, and organization that Virginia Power has already established and currently maintains at the NAPS site. NAEP Section 5.3, "Augmentation of Onsite Emergency Organization," and Section 5.4, "Coordination with Participating Government Agencies," identify specific local, State, and Federal agencies and private sector organizations that are either directly involved in emergency response in support of the NAPS site, or can be called upon to provide assistance. NAEP Figure 5.4, "Station to Support Group Interface Following LEOF Activation," shows functional interfaces.

SSAR Section 13.3.2.2 states that the ESP site is adjacent to a preexisting nuclear facility with existing State and local emergency plans. The SSAR, therefore, relies on and refers to the information contained in these existing plans. There are no significant differences between the major features proposed in the application and the major features discussed in existing plans and relied on in the application.

The COVRERP and county RERPs identify the response organizations for the jurisdictions. Appendix 1, "Task Assignments," to the COVRERP provides a detailed listing of specific tasks that various State, Federal, and local agencies and organizations would be responsible for in a radiological emergency. Section X, Volume 1, of the "Commonwealth of Virginia Emergency Operations Plan," and Annex I-A, "Task Assignments," to Volume II of the "Commonwealth of Virginia Emergency Operations Plan—Peacetime Disasters" provide additional responsibilities. The Virginia Department of Emergency Management (VDEM) would coordinate requests by Dominion for support services from these agencies and organizations.

Section I.A, "Authorities," of the COVRERP lists the legal bases of authority as (1) Commonwealth of Virginia Emergency Services and Disaster Law of 1973, Title 44, Chapter 3.2, Code of Virginia, as amended, and (2) Radiation Control Act, Title 32.1, Chapter 6, Article 8, Code of Virginia. The county RERPs also list these two legal bases, in addition to their respective local enabling ordinances, which provide for the development of local emergency operation plans and support organizations.

SSAR Section 13.3.2.2.a.6 states that the existing licensed facilities (i.e., North Anna Units 1 and 2) maintain letters of agreement with various local, State, and Federal organizations. All the organizations listed in SSAR Section 13.3.2.2.a.6 have submitted updated letters of agreement which acknowledge the ESP application and describe contacts and arrangements pertaining to the concept of operations for the various agencies and organizations.

13.3.3.2.2 Regulatory Evaluation

SSAR Section 13.3.2.2 presents the major features of the applicant's emergency plan. The applicant stated that it prepared the information presented in SSAR Section 13.3.2.2 in accordance with 10 CFR 52.17(b)(2)(i) and Appendix E to 10 CFR Part 50, and considered the guidance in Supplement 2. SSAR Section 13.3.2.2 states that Supplement 2 presents planning standards and evaluation criteria applicable to a major features emergency plan. The staff finds that the applicant identified the regulatory requirements and guidance applicable to the proposed major features of emergency plans for an ESP application.

In its review of the application, the staff considered the regulatory requirements in 10 CFR 52.17(b)(2)(i), 10 CFR 52.18, and 10 CFR Part 50, Appendix E, Sections III and IV.A.

Under 10 CFR 52.17(b)(2)(i), an applicant for an ESP may propose major features of the emergency plans for NRC review and approval, in consultation with FEMA, in the absence of complete and integrated emergency plans. According to 10 CFR 52.18, after consultation with FEMA, the NRC must determine whether the major features of emergency plans submitted under 10 CFR 52.17(b)(2)(i) are acceptable. RS-002 and Supplement 2 provide guidance concerning the review and evaluation of emergency planning information provided in an ESP application. Supplement 2 also provides specific evaluation criteria for major features of emergency plans, including those which apply to major feature A, "Assignment of Responsibility—Organization Control."

Major feature A calls for the applicant to identify EROs, including functions and responsibilities for major elements of response, and the legal bases for State and local authorities. The application should also describe contacts and arrangements between agencies and other support organizations having a response role within the EPZs, and should include any written letters of agreement.

13.3.3.2.3 Technical Evaluation

SSAR Section 13.3.2.2.2 identifies local, State, Federal, and private agencies and organizations that the applicant intends to be part of the overall ERO, as well as detailed functions and responsibilities for the major elements of emergency response for each agency and organization. The NAEP, COVRERP, and county RERPs supplement this information with additional details regarding specific emergency responsibilities. The staff finds that this description is adequate, since it identifies the applicable response organizations and provides detailed descriptions concerning their various response capabilities.

The staff reviewed the COVRERP and county RERPs and finds that they include references to the specific acts, codes, or statutes that form the legal bases for their respective authorities. SSAR Section 13.3.2.2.2.a.6 lists the various local, State, and Federal organizations that have submitted updated letters of agreement in support of the NAPS site, which includes the ESP site. Accordingly, the staff finds that these letters of agreement are adequate. Sections 13.3.2, 13.3.3.3, 13.3.3.4, 13.3.3.7, 13.3.3.10, 13.3.3.11, and 13.3.3.13 of this SER describe contacts and arrangements pertaining to the concept of operations developed among Federal, State, and local agencies and other support organizations having an emergency response role within the EPZs.

13.3.3.2.4 Conclusions

As discussed above, the applicant has identified the EROs, including the functions and responsibilities for major elements of response, and the legal bases for State and local authorities. In addition, the applicant has described contacts and arrangements among the agencies and other support organizations having a response role within the EPZ. Based on its review, as set forth above, the staff concludes that the proposed major feature A is consistent with the guidelines in RS-002 and Supplement 2. Therefore, it is acceptable and meets the requirements of 10 CFR 52.17(b)(2)(i), 10 CFR 52.18, and 10 CFR Part 50, Appendix E, Sections III and IV.A, insofar as it describes the essential elements of advanced planning that have been considered for organization control, as set forth above.

13.3.3.3 Onsite Emergency Organizations (Supplement 2, Major Feature B)

13.3.3.3.1 Technical Information in the Application

SSAR Figure 13.3-3, "Onsite-Offsite Interfaces," illustrates the interfaces for the functional areas of emergency activity. In addition, SSAR Section 13.3.2 states that the applicant's emergency plan takes advantage of the emergency planning resources, capabilities, and organization that Virginia Power has already established and currently maintains at the NAPS site. The applicant stated that it would extend the existing emergency planning and preparedness activities to the proposed new unit(s). SSAR Section 13.3.2.2 states that the ESP site is adjacent to a preexisting nuclear facility with existing State and local emergency plans. The SSAR, therefore, relies on and refers to the information contained in these existing plans. There are no significant differences between the major features proposed in the application and the major features discussed in existing plans and relied on in the application.

NAEP Section 5.4, "Coordination with Participating Government Agencies," provides further details associated with the existing interfaces for functional areas of emergency activity, and includes applicable group interface block diagrams in NAEP Figures 5.3 and 5.4.

SSAR Section 13.3.2.2.b.2, "Services," states that the existing units (i.e., North Anna Units 1 and 2) maintain agreements for police, firefighting, rescue squad, medical, and hospital services, and that these agreements would apply to the ESP site. Appendix 10.1 to the NAEP contains letters of agreement with various local, State, and Federal organizations. As discussed in Section 13.3.2 of this SER, the staff asked the applicant, in RAI 13.3-1, to explain how the existing arrangements address any impact that an additional reactor(s) at the site would have on governmental emergency planning responsibilities. In its response, the applicant provided letters of agreement, which had been revised to specifically acknowledge an awareness by support agencies of the ESP application for the NAPS site, and to state that the existing agency arrangements would apply to a prospective additional reactor(s) at the NAPS site.

13.3.3.3.2 Regulatory Evaluation

SSAR Section 13.3.2.2 presents the major features of the applicant's emergency plan. The applicant stated that it prepared the information presented in SSAR Section 13.3.2.2 in accordance with 10 CFR 52.17(b)(2)(i) and Appendix E to 10 CFR Part 50, and considered the guidance in Supplement 2. SSAR Section 13.3.2.2 states that Supplement 2 presents planning standards and evaluation criteria applicable to a major features emergency plan. The staff finds that the applicant identified the regulatory requirements and guidance applicable to the proposed major features of emergency plans for an ESP application.

In its review of the application, the staff considered the regulatory requirements in 10 CFR 52.17(b)(2)(i), 10 CFR 52.18, and 10 CFR Part 50, Appendix E, Sections III and IV.A. Under 10 CFR 52.17(b)(2)(i), an applicant for an ESP may propose major features of the emergency plans for NRC review and approval, in consultation with FEMA, in the absence of complete and integrated emergency plans. According to 10 CFR 52.18, after consultation with FEMA, the NRC will determine whether the major features of emergency plans submitted under 10 CFR 52.17(b)(2)(i) are acceptable. RS-002 and Supplement 2 provide guidance concerning the review and evaluation of emergency planning information provided in an ESP application.

Supplement 2 also provides specific evaluation criteria for the major features of emergency plans, including those which apply to major feature B, "Onsite Emergency Organizations."

Major feature B calls for the applicant to identify interfaces between and among the onsite functional areas of emergency activity, local services support, and State and local government response organizations, including the services to be provided by local agencies.

13.3.3.3.3 Technical Evaluation

The applicant identified the interfaces for the functional areas of emergency activity in SSAR Figure 13.3-3, which depicts a block diagram connection between the onsite station facilities and the offsite local, State, and Federal EROs. In addition to the block diagram illustration, the applicant provided detailed descriptions throughout SSAR Section 13.3.2.2.2, "Planning Standards and Evaluation Criteria," of the functional interfaces and support that various local, State, and Federal entities would provide.

SSAR Section 13.3.2.2.2.b.2 states that the existing units (i.e., North Anna Units 1 and 2) maintain agreements for police, firefighting, rescue squad, medical, and hospital services, and that these agreements would apply to the ESP site. In addition, SSAR Section 13.3.2.2.2.a.6 states that these letters of agreement are maintained within the NAEP.

The staff reviewed the NAEP and found that NAEP Section 5.4 provides further details associated with the existing interfaces for the functional areas of emergency response, including various related services that would be provided. In addition, NAEP Figures 5.3 and 5.4 provide comparable block diagrams which illustrate these functional interfaces. The staff finds that this information adequately identifies the interfaces between and among the onsite functional areas of emergency activity, local services support, and State and local government response organizations.

The staff also reviewed the existing letters of agreement in Appendix 10.1 to the NAEP, which provide additional descriptions of specific capabilities and various onsite and offsite organizational interfaces. As discussed in Section 13.3.2 of this SER, the letters of agreement were updated to reflect that the existing arrangements would apply to a prospective additional reactor(s) at the NAPS site, consistent with the application. Accordingly, the staff finds that the information provided in SSAR Section 13.3.2.2.2, the NAEP, and the updated letters of agreement adequately identify the services to be provided by local agencies for handling emergencies, including a description of the arrangements for such services.

13.3.3.3.4 Conclusions

As discussed above, the applicant has identified the interfaces between and among the onsite functional areas of emergency activity, local services support, and State and local government response organizations for the ESP site. In addition, the applicant has identified the services and described the arrangements to be provided by various local agencies, and has provided adequate letters of agreement. Based on its review, as set forth above, the staff concludes that the proposed major feature B is consistent with the guidelines in RS-002 and Supplement 2. Therefore, it is acceptable and meets the requirements of 10 CFR 52.17(b)(2)(i), 10 CFR 52.18, and 10 CFR Part 50, Appendix E, Sections III and IV.A, insofar as it describes the essential

elements of advanced planning that have been considered for the onsite emergency response organization, as set forth above.

13.3.3.4 Emergency Response Support and Resources (Supplement 2, Major Feature C)

13.3.3.4.1 Technical Information in the Application

SSAR Section 13.3.2.2.c, "Emergency Response Support and Resources," states that circumstances prompting the implementation of an emergency response may necessitate augmentation of Dominion's resources. Dominion may request such assistance from the Federal government, radiological laboratories, and nuclear or other facilities and organizations.

SSAR Section 13.3.2.2.c.1, "Federal Assistance," states that the Federal Response Plan (FRP) provides the mechanism for coordinating the delivery of Federal assistance and resources to augment efforts of State and local governments overwhelmed by a major disaster or emergency. The FRP supports implementation of the Robert T. Stafford Disaster Relief and Emergency Assistance Act (42 U.S.C. § 5121, et seq.), as well as individual agency statutory authorities, and supplements other Federal emergency operations plans developed to address specific hazards. The U.S. Department of Homeland Security has primary responsibility for coordinating Federal emergency preparedness, planning, management, and disaster assistance functions, including the establishment of Federal disaster assistance policy.

In addition, the Federal Radiological Emergency Response Plan (FRERP) outlines the Federal government's concept of operations for responding to radiological emergencies. It also describes Federal policies and planning considerations which form the basis for the FRERP concept of operations and agency-specific Federal response plans. The FRERP also specifies the authority and responsibility of each Federal agency that may have a significant role in such emergencies. Under the provisions of the FRERP, DOE may respond to a State or lead Federal agency request for assistance by dispatching a radiological assistance program (RAP) team. If the situation warrants more assistance than a RAP team can provide, DOE would alert or activate additional resources. These resources may include the establishment of a Federal Radiological Monitoring and Assessment Center (FRMAC) to be used as an on-scene coordination center for Federal radiological assessment activities.

NAEP Section 5.4.7, "Federal Radiological Monitoring and Assessment Center (FRMAC) Operations Plan," states that the FRMAC may be activated when a major radiological emergency exists. The Federal government would respond when a State, other governmental entity with jurisdiction, or a regulated entity requests Federal support. The station emergency manager, recovery manager, or corporate response manager may request FRMAC assistance directly or through the NRC (as lead Federal agency).

SSAR Section 13.3.2.2 states that the ESP site is adjacent to a preexisting nuclear facility with existing State and local emergency plans. The SSAR, therefore, relies on and refers to the information contained in these existing plans. There are no significant differences between the major plan features proposed in the application and those discussed in existing plans and relied on in the application.

COVRERP Section VII, "Organization," states that Federal response teams represented in the emergency operations facility (EOF), State emergency operations center (EOC), and/or other

locations would support the State organization. Additional Federal assistance may be obtained through the State EOC from (or through) DOE, the NRC, and FEMA. Section I.E, "Department of Emergency Management," of Appendix 1 to the COVRERP states that the VDEM would notify all other State agencies and support organizations which have emergency task assignments identified in the COVRERP. In addition, VDEM would request assistance from the Federal government in accordance with the FRERP. Section II, "Federal Agencies," of Appendix 1 to the COVRERP provides further detailed descriptions of available Federal resources, as well as the procedures for requesting assistance. The county RERPs state that local requests for Federal assistance would be made through the State EOC. In addition, the county RERPs identify the facilities and organizations that would provide assistance in an emergency, and the positions that are responsible for contacts and arrangements with other organizations.

SSAR Section 13.3.2.2.c.2, "Radiological Laboratories," identifies the following radiological count laboratory resources that are available through the Commonwealth of Virginia to respond to emergencies at the NAPS site. This section also provides estimated travel times to the NAPS site for each laboratory. If necessary, additional resources could be obtained through purchase agreements with private institutions. The following list is consistent with NAEP Section 5.3.2, "Vendor and Contractor Support":

- The University of Virginia, Charlottesville, Virginia (45 minutes)
- Virginia Commonwealth Laboratories, Richmond, Virginia (75 minutes)
- Medical College of Virginia, Richmond, Virginia (75 minutes)
- Newport News Shipbuilding & Drydock, Newport News, Virginia (3.5 hours)
- VDH Radiological Health Program Mobile Laboratory (1 hour)

COVRERP Section VII.C states that VDEM coordinates the overall emergency response, while VDH (through the Bureau of Radiological Health (BRH)) provides technical advice and assistance on radiological exposure control and radiological monitoring. Appendix 4, "Emergency Response," to the COVRERP states in Section II, "Operational Concepts and Procedures," that when notified, BRH initiates accident assessment to provide guidance and assistance to the local government and the State EOC. The BRH would perform accident assessment, monitoring, and sample collection.

Appendix 5, "Accident Assessment," to the COVRERP states that the State Radiological Emergency Response Team (RERT) has a mobile laboratory which can be operational onsite within 3 hours of notification, and is capable of 24-hour operation. The mobile lab would be positioned at one of the staging areas located near the nuclear station. Personnel from the nuclear facility or a Federal agency may supplement the RERT. Local governments would conduct radiological monitoring in accordance with their county RERPs and report the results to the EOF.

SSAR Section 13.3.2.2.c.4 addresses contacts and arrangements for assistance from the various response organizations. Personnel within the EOF would coordinate outside assistance, which would include interfaces with all levels of government, private sector response organizations, and other commercial nuclear operators. In addition to prearranged support, contacts and arrangements for assistance from Federal government, radiological laboratories, and nuclear or other facilities and organizations could be requested, if

circumstances prompting the implementation of an emergency response necessitated augmentation of Dominion's resources.

NAEP Section 5.3, "Augmentation of Onsite Emergency Organization," states that assistance may be requested from any organization deemed necessary to mitigate the conditions causing the emergency, and that Appendix 10.1, "Letters of Agreement," to the NAEP lists participating agencies and support services, with whom emergency support services have been negotiated. Appendix 10.1 to the NAEP contains letters of agreement for two of the five listed radiological laboratory resources (i.e., the Medical College of Virginia Hospitals and Physicians/Virginia Commonwealth University (MCVH/VCU) and VDH).

The letter of agreement for the MCVH/VCU states that the "Radiation Emergency Plan—MCVH/VCU—Virginia Power," outlines its 24-hour services in greater detail. Appendix 10.9 to the NAEP references the February 16, 2000, revision of the plan. This plan addresses the capabilities for providing medical care for radiation emergencies in the central Virginia region, and supports the Dominion Resources nuclear reactor stations in the event of occupational or major accidents; this would include the ESP site. In addition, the letter of agreement lists specific services that would be provided, upon verification of an emergency at the ESP site, and includes treatment of injured and radioactively contaminated patients, monitoring and counting equipment for the detection and analysis of radioactivity or radiation, and decontamination supplies.

The letter of agreement with VDH outlines the Department's commitment to respond to any radiological emergency at the NAPS, with VDEM serving as lead agency for the Commonwealth under the framework of the COVRERP. As reflected on the VDH Web site, the Radiological Health Program administered by VDH has an RERT equipped with field instrumentation for monitoring radiation and a mobile laboratory for performing laboratory analysis, so that a rapid assessment of a radiological incident can be made and appropriate recommendations provided to State and local officials. The Radiological Health Program maintains a 24-hour duty officer who is available to respond to any radiological incident or to request additional resources, if needed. The Radiological Health Program's emergency preparedness activities are coordinated with VDEM, which is responsible for the coordination of the State's response and the State emergency plan.

SSAR Section 13.3.2.2.2.i addresses contacts and arrangements for assistance associated with accident assessment; SSAR Section 13.3.2.2.2.l addresses contacts and arrangements for medical and public health support. In addition, consistent with the application, the NAEP addresses contacts and arrangements with vendor and contractor support in NAEP Section 5.3.2, local services support in NAEP Section 5.3.3, and participating government agencies in NAEP Section 5.4. Sections 13.3.2, 13.3.3.2, 13.3.3.3, 13.3.3.10, and 13.3.3.13 of this SER also describe contacts and arrangements made with emergency response support organizations.

SSAR Section 13.3.2.2.2.c identifies radiological laboratories and their general capabilities and expected availability to provide radiological monitoring and analyses services during an emergency. In RAI 13.3-4, the staff asked the applicant to clarify the listing of radiological count laboratory resources in SSAR Section 13.3.2.2.2.c.2, in regard to whether there were additional resources beyond the five listed that could be obtained on an as-needed basis. In addition, the staff asked the applicant to identify the general capabilities and expected

availability to provide radiological monitoring and analyses services during an emergency in support of the ESP site for (1) the University of Virginia, Charlottesville, Virginia, (2) Virginia Commonwealth Laboratories, Richmond, Virginia, and (3) Newport News Shipbuilding & Drydock, Newport News, Virginia. In its response, the applicant stated that the listing of private institutions is a sampling of relatively nearby sources of assistance, and that, if such assistance should be needed, it would be procured in a timely manner from any available source.

In addition, the applicant stated that the University of Virginia has a level-one trauma center and teaching hospital. Its Office of Environmental Health and the Radiation Safety manages all aspects of the use of radioactive materials and radiation-producing equipment. The Virginia Commonwealth Laboratories provide analytical testing services, and may be called on to respond to various health and environmental emergencies in Virginia. Its Bureau of Analytical Services performs analytical testing for State regulatory, environmental, and public health programs. It also has laboratories that can analyze water, sediment, tissue, air, soil, and other samples for the presence of metals and radiation. Finally, Newport News Shipbuilding & Dry Dock is the nation's sole designer, builder, and refueler of nuclear-powered aircraft carriers. It has the necessary staff and facilities to support radiological surveys, monitoring, and analysis functions; it has provided services to more than half of the country's nuclear utilities.

In RAI 13.3-14(a), the staff asked the applicant for more information regarding the availability and capability of laboratories referred to in the State and local emergency plans. The applicant responded to this RAI, but not in time for the information to be considered in this DSER.

13.3.3.4.2 Regulatory Evaluation

SSAR Section 13.3.2.2 presents the major features of the applicant's emergency plan. The applicant stated that it prepared the information presented in SSAR Section 13.3.2.2 in accordance with 10 CFR 52.17(b)(2)(i) and Appendix E to 10 CFR Part 50, and considered the guidance in Supplement 2. SSAR Section 13.3.2.2.2 states that Supplement 2 presents planning standards and evaluation criteria applicable to a major features emergency plan. The staff finds that the applicant identified the regulatory requirements and guidance applicable to the proposed major features of emergency plans for an ESP application.

In its review of the application, the staff considered the regulatory requirements in 10 CFR 52.17(b)(2)(i), 10 CFR 52.18, and 10 CFR Part 50, Appendix E, Sections III, IV.A, IV.B, and IV.D. Under 10 CFR 52.17(b)(2)(i), an applicant for an ESP may propose major features of the emergency plans which can be reviewed and approved by the NRC, in consultation with FEMA, in the absence of complete and integrated emergency plans. As required by 10 CFR 52.18, after consultation with FEMA, the staff will determine whether the major features of emergency plans submitted under 10 CFR 52.17(b)(2)(i) are acceptable. RS-002 and Supplement 2 provide guidance concerning the review and evaluation of emergency planning information provided in an ESP application. Supplement 2 also provides specific evaluation criteria for major features of emergency plans, including those which apply to major feature C, "Emergency Response Support and Resources."

Major feature C calls for the applicant to describe contacts and arrangements for requesting Federal assistance, as well as assistance from radiological laboratories and nuclear or other facilities and organizations. The application should also identify the general capabilities and expected availability of radiological monitoring and analyses services.

13.3.3.4.3 Technical Evaluation

SSAR Section 13.3.2.2.2.c describes the basic Federal emergency response plans that could be called upon to assist the licensee, as well as those of the State and local governments.

SSAR Section 13.3.2.2.2.c.3 addresses assistance from other facilities and organizations, including Dominion Resources and its subsidiaries, Virginia Power and Dominion, and the Institute of Nuclear Power Operations (INPO). The Surry Power Station in Virginia and the Millstone Power Station in Connecticut can also provide assistance. In addition, Federal agencies and various radiological laboratories, as identified in SSAR Section 13.3.2.2.2.c, can provide assistance. The NAEP also identifies sources of assistance in an emergency in Sections 5.3.2, 5.3.3, and 5.4. Section 13.3.2 of this SER discusses the associated description of contacts and arrangements made with response organizations.

The applicant responded to RAI 13.3-14(a), which called for information regarding the availability and capability of laboratories referred to in State and local emergency plans. This response, however, was received too late to be considered in this DSER. Consideration of this information is **Open Item 13.3-1**. The NRC and FEMA will review the response and will describe the results of that review in the final safety evaluation report (FSER).

13.3.3.4.4 Conclusions

As discussed above, the staff needs to review the applicant's response to RAI 13.3-14(a) in order to determine whether proposed major feature C is acceptable. The applicant responded to this RAI too late for consideration of the response in this DSER. The NRC and FEMA will determine acceptability of this major feature and document that determination in the FSER, based on information the applicant has provided to date, including its response to this RAI.

13.3.3.5 *Emergency Classification System (Supplement 2, Major Feature D)*

13.3.3.5.1 Technical Information in the Application

SSAR Section 13.3.2.2.2.d, "Emergency Classification System," states that the applicant would use an emergency classification scheme with the four classifications listed below in the event of an emergency. The applicant would use EALs to determine when and what type of protective measures should be considered within and outside the NAPS site boundary to protect health and safety. The applicant stated that the COVRERP and local government RERPs would provide an emergency classification level scheme consistent with that established by Dominion, as required by 44 CFR 350.5(a)(4). This scheme includes the following classifications:

- notification of unusual event
- alert
- site area emergency
- general emergency

SSAR Section 13.3.2 states that the emergency plan takes advantage of the emergency planning resources, capabilities, and organization that Virginia Power has already established and currently maintains at the NAPS site. The applicant would extend the existing emergency planning and preparedness activities to include the proposed new unit(s). SSAR Section

13.3.2.2 states that the ESP site is adjacent to a preexisting nuclear facility with existing State and local emergency plans. The SSAR, therefore, relies on and refers to the information contained in these existing plans. No significant differences exist between the major features proposed in the application and the major features discussed in existing plans and relied on in the application.

COVRERP Section VII.A, "Emergency Classification Levels for Nuclear Facilities," and the county RERPs provide an emergency classification scheme which is consistent with the four classifications listed above. With regard to specific EALs, SSAR Section 13.3.2.2.d.1 states that the COL applicant would propose site-specific EALs in its COL application, and that the applicant would discuss and agree to the EALs with the Commonwealth of Virginia and local government authorities. The COL applicant would then submit the EALs to the NRC for approval.

13.3.3.5.2 Regulatory Evaluation

SSAR Section 13.3.2.2 presents the major features of the applicant's emergency plan. The applicant stated that it prepared the information presented in SSAR Section 13.3.2.2 in accordance with 10 CFR 52.17(b)(2)(i) and Appendix E to 10 CFR Part 50, and considered the guidance in Supplement 2. SSAR Section 13.3.2.2 states that Supplement 2 presents planning standards and evaluation criteria applicable to a major features emergency plan. The staff finds that the applicant identified the regulatory requirements and guidance applicable to the proposed major features of emergency plans for an ESP application.

In its review of the application, the staff considered the regulatory requirements of 10 CFR 52.17(b)(2)(i), 10 CFR 52.18, and 10 CFR Part 50, Appendix E, Sections III and IV.C. Under 10 CFR 52.17(b)(2)(i), an applicant for an ESP may propose major features of the emergency plans that the NRC can review and approve, in consultation with FEMA, in the absence of complete and integrated emergency plans. As required by 10 CFR 52.18, after consultation with FEMA, the staff will determine whether the major features of emergency plans submitted under 10 CFR 52.17(b)(2)(i) are acceptable. RS-002 and Supplement 2 provide guidance concerning the review and evaluation of emergency planning information provided in an ESP application. Supplement 2 also provides specific evaluation criteria for the major features of emergency plans, including those which apply to major feature D, "Emergency Classification System."

Major feature D calls for the applicant to establish a standard emergency classification scheme that is consistent with Appendix 1 to NUREG-0654/FEMA-REP-1. Major feature D also calls for the State and local organizations to establish an emergency classification scheme that is consistent with that proposed by the applicant.

13.3.3.5.3 Technical Evaluation

As stated in SSAR Section 13.3.2.2.d, the staff finds that the applicant would use an emergency classification scheme consisting of the four classifications required by 44 CFR 350.5(a)(4). Based on its review, the staff finds these four proposed emergency classifications are consistent with those in Appendix 1 to NUREG-0654/FEMA-REP-1. The staff also finds that the emergency classification schemes established by the State in

COVRRERP, Section VII.A, and by the local organizations in the county RERPs, are consistent with that proposed by the applicant.

13.3.3.5.4 Conclusions

As discussed above, the applicant has specified a standard emergency classification scheme, which is consistent with that set forth in Appendix 1 to NUREG-0654/FEMA-REP-1, and with that established by the State and local EROs. Based on its review, the staff concludes that the proposed major feature D is consistent with the guidelines in RS-002 and Supplement 2. Therefore, it is acceptable and meets the requirements of 10 CFR 52.17(b)(2)(i), 10 CFR 52.18, and 10 CFR Part 50, Appendix E, Sections III and IV.C, insofar as it describes the essential elements of advanced planning that have been considered for the emergency classification system, as set forth above.

13.3.3.6 *Notification Methods and Procedures (Supplement 2, Major Feature E)*

13.3.3.6.1 Technical Information in the Application

SSAR Section 13.3.2.2.2.e, "Notification Methods and Procedures," describes the bases for notification of response organizations. Reference is made to SSAR Section 13.3.2.2.2.d, which states that the initial classification and declaration of an emergency class would be in accordance with the four categories of an emergency classification scheme, which is consistent with Appendix 1 to NUREG-0654/FEMA-REP-1. The normal process for alerting, notifying, and mobilizing the ERO is multifaceted, including alarms, announcements, pagers, telephones, online messages, etc. The applicant would make subsequent notifications, including providing specific information pertaining to the emergency, to the Commonwealth of Virginia and the NRC, and would activate the Emergency Response Data System (ERDS).² Site personnel at NAPS, including security personnel and/or personnel from the Virginia Department of Game and Inland Fisheries, would alert individuals within the NAPS exclusion area.

The applicant further stated in SSAR Section 13.3.2.2.2.e that the Commonwealth of Virginia and local authorities, with the assistance of the Virginia State Police (VSP), would alert the public within the 10-mi EPZ. The sounding of the alert and notification system (ANS) sirens already installed around the NAPS site is the primary method of alerting the public. The applicant stated that the existing ANS would support the new units. Other alerting methods might include telephone communications, television and radio communications via the emergency alert system (EAS) stations, public address systems, bullhorns from patrol cars, and personal contacts. The applicant also stated that written, preplanned messages would be consistent with the emergency classification level scheme in Appendix 1 to NUREG-0654/FEMA-REP-1. The messages would give instructions on the nature of the emergency and information concerning the recommended protective action, sheltering, thyroid-blocking potassium iodide (KI), or evacuation.

²The ERDS is a direct, near real-time electronic data link between the licensee's onsite computer system and the NRC Operations Center that provides for the automated transmission of a limited data set of selected parameters (see Section VI.1 of Appendix E to 10 CFR Part 50).

SSAR Section 13.3.2 states that the emergency plan takes advantage of the emergency planning resources, capabilities, and organization that Virginia Power has already established and currently maintains at the NAPS site. The applicant would extend the existing emergency planning and preparedness activities to include the proposed new unit(s). SSAR Section 13.3.2.2 states that the ESP site is adjacent to a preexisting nuclear facility with existing State and local emergency plans. The SSAR, therefore, relies on and refers to the information contained in these existing plans. No significant differences exist between the major features proposed in the application and the major features discussed in existing plans and relied on in the application.

COVREPER Section VIII.C, "Notification and Warning," states that the notification and warning process is based on the four emergency classifications (i.e., notification of unusual event, alert, site area emergency, and general emergency). Section II.B, "Procedures," of Appendix 3 to the COVREPER describes procedures for notifying State agencies and risk jurisdictions, which are then responsible for mobilizing emergency personnel according to task lists. The document also provides authority for direct notification, should the Virginia EOC be unreachable. The county RERPs describe the bases for notifying, alerting, and mobilizing emergency responders. Appendix 1 to the county RERPs contains a detailed procedure of notification and mobilization actions for emergency response personnel.

Section II.C, "Public Alerting and Warning," of Appendix 3 to the COVREPER describes procedures for public alerting and notifying. Primary responsibility for public alert and notification resides with the State. This section also describes the process for notifying transient populations and special facilities, including backup notification methods. The EAS would be the primary method of providing public instruction.

Sirens do not cover Orange County and parts of the other risk jurisdictions. Orange County RERP, Section III.G, "Alert and Warning Means," describes the alert and notification procedures that sheriff deputy cruisers (equipped with loudspeakers) would perform, backed up by EAS broadcasts and telephone notifications. According to the RERP, State and local officials would provide instructions using EAS broadcasts. In addition, State and local officials would make special announcements to the three largest population centers by fax, telephone, and EAS broadcasts, with internal route alerting by local police.

Section VIII.D of the Louisa County RERP describes the public alert and notification methods. Primary alerting is by the emergency siren system in place for the NAPS site. Louisa County can initiate its emergency alert sirens. Local television and radio stations that are part of the EAS would provide notification and instruction. Appendix 2 to the Louisa County RERP contains the procedure for the public information officer to release emergency instructions using the EAS stations. The remaining county RERPs are similar to that for Louisa County.

NAEP Section 6.0, "Emergency Measures," Section 6.1, "Activation of the Emergency Plan," Section 6.3, "Protective Actions," and Section 7.6, "Early Warning System," provide additional information concerning the bases and methods for communicating with response organizations and the public.

13.3.3.6.2 Regulatory Evaluation

SSAR Section 13.3.2.2 presents the major features of the applicant's emergency plan. The applicant stated that it prepared the information presented in SSAR Section 13.3.2.2 in accordance with 10 CFR 52.17(b)(2)(i) and Appendix E to 10 CFR Part 50, and considered the guidance in Supplement 2. SSAR Section 13.3.2.2.2 states that Supplement 2 presents planning standards and evaluation criteria applicable to a major features emergency plan. The staff finds that the applicant identified the regulatory requirements and guidance applicable to the proposed major features of emergency plans for an ESP application.

In its review of the application, the staff considered the regulatory requirements in 10 CFR 52.17(b)(2)(i), 10 CFR 52.18, and 10 CFR Part 50, Appendix E, Sections III and IV.D. Under 10 CFR 52.17(b)(2)(i), an applicant for an ESP may propose the major features of the emergency plans that the NRC can review and approve, in consultation with FEMA, in the absence of complete and integrated emergency plans. As required by 10 CFR 52.18, after consultation with FEMA, the staff will determine whether the major features of emergency plans submitted under 10 CFR 52.17(b)(2)(i) are acceptable. RS-002 and Supplement 2 provide guidance concerning the review and evaluation of emergency planning information provided in ESP applications. Supplement 2 also provides specific evaluation criteria for major features of emergency plans, including those which apply to major feature E, "Notification Methods and Procedures."

Major feature E calls for the applicant to describe the mutually agreeable bases for notification of response organizations, consistent with the emergency classification scheme in Appendix 1 to NUREG-0654/FEMA-REP-1, including the method for alerting, notifying, and mobilizing personnel. The application should also describe the administrative and physical means for notifying and promptly instructing the public within the 10-mi EPZ.

13.3.3.6.3 Technical Evaluation

SSAR Section 13.3.2.2.2.e.1 states that notifications to the Commonwealth of Virginia and risk jurisdictions would be in accordance with SSAR Section 13.3.2.2.2.d, which lists the four emergency classifications of notification of unusual event, alert, site area emergency, and general emergency. The COVRERP and county RERPs all utilize the same four emergency classifications, which are consistent with those in Appendix 1 to NUREG-0654/FEMA-REP-1. In view of the foregoing, the staff finds that each organization has described mutually agreeable bases for notification of response organizations, and that each is consistent with the emergency classification scheme in Appendix 1 to NUREG-0654/FEMA-REP-1.

SSAR Section 13.3.2.2.2.e states that the normal process for alerting, notifying, and mobilizing the EROs includes, but is not limited to, alarms, announcements, pagers, telephones, and online messages. Section II.B of Appendix 3 to the COVRERP states that the facility operator would notify local governments within the 10-mi EPZ and the Virginia EOC by the Insta-Phone. The staff finds that the COVRERP and county RERPs provide detailed notification procedures, and that this information adequately describes the methods for alerting, notifying, and mobilizing emergency response personnel.

As stated in SSAR Section 13.3.2.2.2.e, the staff finds that Dominion would rely on the already-installed ANS around the NAPS site to support the new units, and that the

Commonwealth of Virginia and risk jurisdictions have ultimate responsibility for warning the public. While the primary method of alerting the public is by sounding the ANS sirens, other alerting methods may include telephone, television and radio (via the EAS stations), public address systems, bullhorns from patrol cars, and personal contact. The COVRERP and the county RERPs provide procedures for public alerting and notifying. The staff finds that this information adequately describes the administrative and physical means for notifying and promptly instructing the public within the 10-mi EPZ.

13.3.3.6.4 Conclusions

As discussed above, the applicant has described the mutually agreeable bases for notification of response organizations, which is consistent with that set forth in Appendix 1 to NUREG-0654/FEMA-REP-1, and includes the method for alerting, notifying, and mobilizing personnel. In addition, the applicant has described the administrative and physical means for notifying and promptly instructing the public within the 10-mi EPZ. Based on its review, the staff concludes that the proposed major feature E is consistent with the guidelines in RS-002 and Supplement 2. Therefore, it is acceptable and meets the requirements of 10 CFR 52.17(b)(2)(i), 10 CFR 52.18, and 10 CFR Part 50, Appendix E, Sections III and IV.D, insofar as it describes the essential elements of advanced planning that have been considered for notification methods and procedures, as set forth above.

13.3.3.7 *Emergency Communications (Supplement 2, Major Feature F)*

13.3.3.7.1 Technical Information in the Application

SSAR Section 13.3.2.2.2.f, "Emergency Communications," states that Dominion would provide the means for prompt communications with the Commonwealth of Virginia, risk jurisdictions, and Federal government EROs; the means to alert and activate the ESP site ERO; and arrangements for communicating with medical support facilities. The ESP site ERO would be alerted for activation by way of multiple communications methods (e.g., plant alarms and/or announcements, pagers, telephones, online messages). Dominion would maintain the capability of notifying both the Commonwealth of Virginia and the risk jurisdictions within 15 minutes after declaring an emergency.

NAEP Section 7.2.2.4, "Dedicated NRC Communications," states that separate telephone lines are dedicated for communications with the NRC, and include the following:

- Emergency Notification System (ENS)
- Health Physics Network (HPN)
- Reactor Safety Counterpart Link (RSCL)
- Protective Measures Counterpart Link (PMCL)
- Emergency Response Data System (ERDS)

SSAR Section 13.3.2.2.2.f.5, "Communication With Medical Support Facilities," states that the ESP site can communicate with the hospital service described in SSAR Section 13.3.2.2.2.i, "Medical and Public Health Support." The ESP site would also be able to communicate with an ambulance by use of an ultra-high frequency (UHF) radio or mobile telephone, and the ambulance can communicate with the hospital by way of the hospital emergency and administrative radio (HEAR) system or mobile telephone.

NAEP Section 6.4.3, "Medical Transportation," states that the station can communicate with MCVH. In addition, Appendix 10.9, "Radiation Emergency Plan—MCVH/VCU—Virginia Power," to the NAEP states in Section VII.C, "In Route Communications During Transportation to MCVH," that the Department of Emergency Medicine at MCVH has three systems for communicating with incoming ambulances (i.e., the HEAR system, coronary observation radio, and cellular telephone).

SSAR Section 13.3.2.2 states that the ESP site is adjacent to a preexisting nuclear facility with existing State and local emergency plans. The SSAR, therefore, relies on and refers to the information contained in these existing plans. There are no significant differences between the major features proposed in the application and the major features discussed in existing plans and relied on in the application.

Section II.A, "Notification and Warning," of Appendix 3 to the COVRERP describes provisions for communications between the NAPS site and the State. Insta-Phone (a dedicated hot-loop system) would serve as the primary means of notification, which would permit simultaneous notification of the Virginia EOC and the local governments within the 10-mi EPZ. Radio, commercial telephones, and facsimile machines would serve as a backup. Local governments within the 50-mi EPZ would be notified using the Virginia Criminal Information Network, with commercial telephone as backup. The county RERPs also specify these same types of communication systems.

Appendix 9, "Communications," to the COVRERP states that the primary means of communication between the Virginia EOC and the Federal EROs would be commercial telephone. The FEMA Federal national radio system or national warning system would be used as a backup. Appendix 9 to the COVRERP also describes the State methods for alerting and activating emergency response personnel.

COVRERP Section VIII.C, "Notification and Warning," states that, when notified by the NAPS site, the Virginia EOC and the local governments would take actions as outlined at Tab A to Appendix 4, "Emergency Response Procedures," and in local government RERPs. The Virginia EOC would notify BRH, other State agencies assigned emergency tasks in the COVRERP, and the affected local governments, as appropriate. Each State organization is responsible for activating its personnel in accordance with the organization's procedures and the classification level. The local government EOCs or communications centers would notify local government officials and supporting organizations, and carry out emergency responsibilities and implement procedures in accordance with the local government RERPs. The county RERPs describe procedures for activating emergency personnel. These procedures primarily describe responsibilities for activating emergency personnel, rather than specifically covering the means for activation.

Tab C to Appendix 9, "Emergency Medical Communications," to the COVRERP describes the radio communication capabilities of ambulances, hospitals, and other medical support activities that would respond to a nuclear facility. These include hospital-to-ambulance, hospital-to-hospital, and EOC-to-hospital communication methods. Additionally, VDEM command vehicles are equipped for radio communication on the Virginia medical frequencies. Communications are also available from the Louisa County Sheriff to the University of Virginia Hospital and MCVH. The Virginia EOC can also directly contact the University of Virginia and MCVH by way

of radio. The county RERPs describe communication capabilities, consisting of commercial and dedicated telephone lines, as well as local government radios.

In RAI 13.3-5, the staff asked the applicant to describe the specific provisions for communications with contiguous State and local governments within the 10-mi and 50-mi EPZs, and with Federal EROs. In addition, the staff asked the applicant to describe the extent to which it would use existing site communications. In its response, the applicant stated that the NAEP describes provisions for communications at the plant site as they currently exist, which include an Insta-Phone hot loop between the licensee, the Virginia EOC, and the risk jurisdiction warning points. In addition, there is a direct automatic ring-down circuit between the licensee and the Virginia EOC, and both private branch exchange and off-premises exchange access to the public switched network. While existing site communications may be used to support a new unit(s) constructed at the ESP site, the applicant stated that it is premature to identify the specific extent to which these capabilities might be used in support of new units at the ESP site, since equivalent or superior means may become available as a result of technological advancements in the future. Thus, without specifying the technology at the ESP stage, the applicant stated that it would ensure that a means, compliant with regulatory requirements, would be provided for communicating with contiguous State and local governments within the 10-mi and 50-mi EPZs, as well as with Federal EROs.

13.3.3.7.2 Regulatory Evaluation

SSAR Section 13.3.2.2 presents the major features of the applicant's emergency plan. The applicant stated that it prepared the information presented in SSAR Section 13.3.2.2 in accordance with 10 CFR 52.17(b)(2)(i) and Appendix E to 10 CFR Part 50, and considered the guidance in Supplement 2. SSAR Section 13.3.2.2.2 states that Supplement 2 presents planning standards and evaluation criteria applicable to a major features emergency plan. The staff finds that the applicant identified the regulatory requirements and guidance applicable to proposed major features of emergency plans for an ESP application.

In its review of the application, the staff considered the regulatory requirements in 10 CFR 52.17(b)(2)(i), 10 CFR 52.18, and 10 CFR Part 50, Appendix E, Sections III, IV.D and IV.E. Under 10 CFR 52.17(b)(2)(i), an applicant may propose major features of the emergency plans for NRC review and approval, in consultation with FEMA, in the absence of complete and integrated emergency plans. According to 10 CFR 52.18, after consultation with FEMA, the NRC must determine whether the major features of emergency plans submitted under 10 CFR 52.17(b)(2)(i) are acceptable. RS-002 and Supplement 2 provide guidance concerning the review and evaluation of emergency planning information provided in an ESP application. Supplement 2 also provides specific evaluation criteria for major features of emergency plans, including those which apply to major feature F, "Emergency Communications."

Major feature F calls for the applicant to identify communication provisions with State and local governments within the EPZs, with Federal EROs, and with fixed and mobile medical support facilities. The application should also describe provisions for alerting and activating emergency personnel.

13.3.3.7.3 Technical Evaluation

Section II.A of Appendix 3 to the COVRERP states that the dedicated hot-loop Insta-Phone system would serve as the primary means of notification, and would permit simultaneous notification of the Virginia EOC and the local governments within the 10-mile EPZ. Radio, commercial telephones, and facsimile machines would serve as a backup. Local governments within the 50-mile EPZ would be notified using the Virginia Criminal Information Network with commercial telephone as backup. NAEP Section 7.2.2.4 states that separate dedicated telephone lines with the NRC exist, including the ENS, HPN, RSCL, PMCL, and ERDS. In response to RAI 13.3-5, the applicant stated that existing site communications may be used to support the new units, and that equivalent or superior means might also be used if they become available as a result of future technological advancements. Appendix 9 to the COVRERP states that the primary means of communications between the Virginia EOC and the Federal EROs would be commercial telephone, and that the FEMA Federal national radio system or national warning system would be used as a backup. SSAR Section 13.3.2.2.2.f states that the ESP site ERO would be alerted for activation by way of multiple communications methods (e.g., plant alarms and/or announcements, pagers, telephones, online messages).

SSAR Section 13.3.2.2.2.f.5 states that the ESP site can communicate with hospital services, and with an ambulance by use of an ULF radio or mobile telephone. The ambulance can communicate with the hospital by way of the HEAR system or mobile telephone. In addition, NAEP Section 6.4.3 states that the Department of Emergency Medicine at MCVH has three systems for communicating with incoming ambulances (i.e., the HEAR system, coronary observation radio, and cellular telephone).

Because the above descriptions cover the appropriate EROs and identify primary and backup means of communications, the staff finds that the applicant provided adequate descriptions of provisions for communications with the State and local governments, with Federal emergency response organizations, and with fixed and mobile medical support facilities. In addition, the staff finds that the use of the existing site communications for the ESP site is acceptable, to the extent that it would be expanded to incorporate relevant aspects of a proposed new reactor design in a COL or OL application. The staff will determine the adequacy of such incorporation during a COL or OL review. The staff did not consider the availability of equivalent or superior means of communications as a result of future technology advancements to be required for a major features review and, as such, did not review it. A COL or OL applicant will address any such technological advancements, and the staff will determine compliance with the requirements in this area during a COL or OL review.

13.3.3.7.4 Conclusions

As discussed above, the applicant has identified communication provisions with State and local governments within the EPZs, with Federal EROs, and with fixed and mobile medical support facilities. In addition, the applicant has described provisions for alerting and activating emergency personnel. Based on its review, the staff concludes that the proposed major feature F is consistent with the guidelines in RS-002 and Supplement 2. Therefore, it is acceptable and meets the requirements of 10 CFR 52.17(b)(2)(i), 10 CFR 52.18, and 10 CFR Part 50, Appendix E, Sections III, IV.D and IV.E, insofar as it describes the essential elements of advanced planning that have been considered for emergency communications, as set forth above.

13.3.3.8 *Public Education and Information (Supplement 2, Major Feature G)*

13.3.3.8.1 Technical Information in the Application

SSAR Section 13.3.2.2.2.g, "Public Education and Information," states that Dominion would implement an emergency information program for the public and the news media. It would coordinate its public information efforts with the Commonwealth of Virginia and local authorities to ensure that the public is informed by using the best means available.

SSAR Section 13.3.2.2.2.g.1, "Informing the Public," states that Dominion Resources provides information annually describing the emergency notification process and actions that should be taken in the event of an emergency to the public within the NAPS site 10-mi EPZ. This information includes the following:

- educational information on radiation
- contact points for obtaining additional information
- protective measures (e.g., evacuation routes and relocation centers, sheltering, respiratory protection, radioprotective drugs)
- special needs of the handicapped and the transient population

In addition, SSAR Section 13.3.2.2.2.g.1 states that Dominion intends to rely on the program that Virginia Power has already established for informing the public in the area surrounding the ESP site. It would coordinate its public information efforts with the Commonwealth of Virginia and local authorities to ensure that the public is informed by using the best means available (e.g., telephone books, utility bill inserts, public postings, and periodic publications, such as brochures and calendars).

SSAR Section 13.3.2.2.2.g.2, "Informing the News Media," states that Dominion Resources offers an annual program to acquaint the news media with emergency plans, information concerning radiation, and points of contact for release of public information in an emergency. Dominion intends to rely on the Virginia Power program for informing the media in the area surrounding the ESP site.

SSAR Section 13.3.2 states that the emergency plan takes advantage of the emergency planning resources, capabilities, and organization that Virginia Power has already established and currently maintains at the NAPS site. The applicant would extend the existing emergency planning and preparedness activities to include the proposed new unit(s). SSAR Section 13.3.2.2 states that the ESP site is adjacent to a preexisting nuclear facility with existing State and local emergency plans. The SSAR, therefore, relies on and refers to the information contained in these existing plans. There are no significant differences between major features proposed in the application and the major features discussed in existing plans and relied on in the application.

NAEP Section 8.8, "Informing the Public," states that Dominion would distribute public information to ensure coverage within the 10-mi EPZ. The company would also establish a

telephone system for addressing rumors, announce the telephone numbers over the EAS, and invite individuals within the 10-mi EPZ to call collect.

Appendix 8, "Public Information," to the COVRERP describes the Commonwealth's coordination with Dominion Resources regarding public information, stating that VDEM would lead the coordination efforts with Dominion on nonemergency public information and education. The State would assist local governments with its radiological information programs, as requested by the emergency services coordinator. These actions would be coordinated with the VDEM regional coordinator. The county RERPs in Louisa, Hanover, Caroline, and Spotsylvania Counties all coordinate with Dominion Resources and VDEM in disseminating such nonemergency information.

Appendix 8 to the COVRERP also indicates that Dominion would offer news media representatives annual briefings on emergency response plans and would provide them with other information regarding nuclear facilities in the Commonwealth. The county RERPs in Louisa, Hanover, Caroline, and Spotsylvania Counties all mention local coordination in these annual briefings to the news media.

In RAI 13.3-14(b) and RAI 13.3-14(c), the staff asked the applicant to describe the periodic program in Orange County for informing members of the public about how they will be notified and what actions they should take during an emergency. The staff also asked the applicant to describe its program for periodic, nonemergency briefings for the media. The applicant responded to these RAIs, but not in time for the information to be considered in this DSER.

13.3.3.8.2 Regulatory Evaluation

SSAR Section 13.3.2.2 presents the major features of the applicant's emergency plan. The applicant stated that it prepared the information presented in SSAR Section 13.3.2.2 in accordance with 10 CFR 52.17(b)(2)(i) and Appendix E to 10 CFR Part 50, and considered the guidance of Supplement 2. SSAR Section 13.3.2.2.2 states that Supplement 2 presents planning standards and evaluation criteria applicable to a major features emergency plan. The staff finds that the applicant identified the regulatory requirements and guidance relevant to proposed major features of emergency plans for an ESP application.

In its review of the application, the staff considered the regulatory requirements in 10 CFR 52.17(b)(2)(i), 10 CFR 52.18, and 10 CFR Part 50, Appendix E, Sections III, IV.A, IV.D, IV.E, and IV.F. Under 10 CFR 52.17(b)(2)(i), an applicant for an ESP may propose major features of the emergency plans for NRC review and approval, in consultation with FEMA, in the absence of complete and integrated emergency plans. As required by 10 CFR 52.18, after consultation with FEMA, the NRC must determine whether the major features of emergency plans submitted under 10 CFR 52.17(b)(2)(i) are acceptable. RS-002 and Supplement 2 provide guidance concerning the review and evaluation of emergency planning information provided in an ESP application. Supplement 2 also provides specific evaluation criteria for major features of emergency plans, including those which apply to major feature G, "Public Education and Information."

Major feature G calls for the applicant to describe a program to provide information to the public and news media on a periodic basis (at least annually). The program should address how the

applicant would notify the public, including what actions they should take in an emergency, and the applicant's means for acquainting the news media with emergency information.

13.3.3.8.3 Technical Evaluation

As stated in SSAR Section 13.3.2.2.2.g, the NAEP, and the COVRERP and county RERPs, Virginia Power has established a program for providing information to the public and news media for the NAPS site. Dominion would rely on this program for the area surrounding the ESP site. SSAR Section 13.3.2.2.2.g.1 lists the type of information that Dominion would provide to the public, and SSAR Section 13.3.2.2.2.g.2 lists the type of information that Dominion would provide to the news media. The staff finds that both lists are consistent with NAEP Section 8.8, which applies to the current NAPS site, as well as the COVRERP and county RERPs. In addition, Appendix 8 to the COVRERP and the county RERPs describe the coordination with Dominion Resources and with each other relating to emergency notification and public information efforts and local coordination by the counties in annual news media briefings.

The applicant responded to RAI 13.3-14(b) and RAI 13.3-14(c), which called for information regarding how the public in Orange County would be provided with information, and the applicant's program for periodic, non-emergency briefings of the media. These responses, however, were received too late to be considered in this DSER. Consideration of this information is **Open Item 13.3-2**. The NRC and FEMA will review the responses and will describe the results of that review in the FSER.

13.3.3.8.4 Conclusions

As discussed above, the staff needs to review the applicant's response to RAI 13.3-14(b) and RAI 13.3-14(c) in order to determine whether proposed major feature G is acceptable. The applicant responded to these RAIs too late for consideration of the responses in this DSER. The NRC and FEMA will determine acceptability of this major feature and document that determination in the FSER, based on information the applicant has provided to date, including its response to these RAIs.

13.3.3.9 *Emergency Facilities and Equipment (Supplement 2, Major Feature H)*

13.3.3.9.1 Technical Information in the Application

SSAR Section 13.3.2.2.2.h.1, "Technical Support Center," states that Dominion would make provisions for a technical support center (TSC) located near the control room. Personnel reporting to the TSC would provide plant management and technical support to the control room staff during emergency conditions. The TSC would have technical and data displays and plant records available to assist in the detailed analysis and diagnosis of abnormal plant conditions. It would serve as the primary onsite communications center for the plant during an emergency.

SSAR Section 13.3.2.2.2.h.2, "Operational Support Center," states that Dominion would provide for an operational support center (OSC) assembly area, separate from the control room and the TSC. SSAR Section 13.3.2.2.2.h.3, "Emergency Operations Facility," states that Dominion would provide for an EOF for managing the overall licensee emergency response, including

coordination with Federal, State, and risk jurisdiction officials, coordination of radiological and environmental assessments, and determination of recommended public protective actions. The EOF would have technical and data displays and plant records available to assist in the diagnosis of plant conditions. The EOF would serve as the primary offsite communications center for the plant during an emergency.

SSAR Section 13.3.2.2 states that the ESP site is adjacent to a preexisting nuclear facility with existing State and local emergency plans. The SSAR, therefore, relies on and refers to the information contained in these existing plans. There are no significant differences between the major features proposed in the application and the major features discussed in existing plans and relied on in the application. Section 13.3.2.2.2.h.4, "Emergency Operations Centers," states that the State and risk jurisdictions have established EOCs for use in directing and controlling emergency response functions. COVRERP Section II.C describes the establishment of the State EOC and its functions, stating that the State would coordinate the offsite emergency operations from the Virginia EOC (staffed 24 hours a day, 7 days a week) and respective local government EOCs. The county RERPs describe the establishment, location, and function of the local EOCs.

SSAR Sections 13.3.2.2.2.h.1 and 13.3.2.2.2.h.2 provide brief, general statements from the criteria presented in NUREG-0696, "Functional Criteria for Emergency Response Facilities—Final Report," issued February 1981, for the TSC, OSC, and EOF, but do not give specific facility- or equipment-related information.

In RAI 13.3-8, the staff asked the applicant to discuss the extent to which it intended the application to address evaluation criteria V.H.1 and V.H.2 of Supplement 2 for the TSC, OSC, and EOF, including the criteria of NUREG-0696. In addition, the staff asked the applicant to state whether Dominion intends to utilize the existing TSC, OSC, and EOF, which support North Anna Units 1 and 2, for the ESP site. If so, the applicant should provide information consistent with evaluation criteria V.H.1 and V.H.2 of Supplement 2. In its response, the applicant stated that the COL applicant would make provisions for emergency facilities and equipment for the TSC, OSC, and EOF that would satisfy the functions described in SSAR Sections 13.3.2.2.2.h.1 through 13.3.2.2.2.h.2. The applicant added that additional information addressing the NUREG-0696 criteria is not necessary or appropriate at the time of the ESP application, and that a COL application would include a description of the TSC and descriptions of the conceptual designs for an OSC and EOF. Since the TSC, OSC, and EOF details would differ based on the reactor design selected at the COL stage, the applicant has not yet decided whether to use the existing facilities to support the new unit(s). The applicant also stated that NUREG-0696 is general guidance only and not a requirement, and should not be misconstrued as a requirement to be levied on licensees or as an inflexible criterion to be used by staff reviewers.

13.3.3.9.2 Regulatory Evaluation

SSAR Section 13.3.2.2 presents the major features of the applicant's emergency plan. The applicant stated that it prepared the information presented in SSAR Section 13.3.2.2 in accordance with 10 CFR 52.17(b)(2)(i) and Appendix E to 10 CFR Part 50, and considered the guidance in Supplement 2. SSAR Section 13.3.2.2.2 states that Supplement 2 presents planning standards and evaluation criteria applicable to a major features emergency plan. The

staff finds that the applicant identified the regulatory requirements and guidance applicable to the proposed major features of emergency plans for an ESP application.

In its review of the application, the staff considered the regulatory requirements in 10 CFR 52.17(b)(2)(i), 10 CFR 52.18, and 10 CFR Part 50, Appendix E, Sections III, IV.B, and IV.E. Under 10 CFR 52.17(b)(2)(i), an applicant for an ESP may propose major features of the emergency plans for NRC review and approval in consultation with FEMA, in the absence of complete and integrated emergency plans. According to 10 CFR 52.18, after consultation with FEMA, the NRC must determine whether the major features of emergency plans submitted under 10 CFR 52.17(b)(2)(i) are acceptable. RS-002 and Supplement 2 provide guidance concerning the review and evaluation of emergency planning information provided in an ESP application. Supplement 2 also provides specific evaluation criteria for major features of emergency plans, including those which are applicable to major feature H, "Emergency Facilities and Equipment."

Major feature H calls for the applicant to describe a TSC, onsite OSC, and EOF, in accordance with the criteria of NUREG-0696. The following are the general guidance criteria from NUREG-0696 for these facilities:

- The TSC is an onsite facility located close to the control room that shall provide plant management and technical support to the reactor operating personnel located in the control room during emergency conditions. It shall have technical data displays and plant records available to assist in the detailed analysis and diagnosis of abnormal plant conditions and any significant release of radioactivity to the environment. The TSC shall be the primary communications center for the plant during an emergency.
- The OSC is an onsite assembly area separate from the control room and the TSC where licensee operations support personnel shall report in an emergency. There shall be direct communications between the OSC and the control room, and between the OSC and the TSC, so that the personnel reporting to the OSC can be assigned to duties in support of emergency operations.
- The EOF is a near-site support facility for the management of overall licensee emergency response (including coordination with Federal, State, and local officials), coordination of radiological and environmental assessments, and determination of recommended public protective actions. The EOF shall have appropriate technical data displays and plant records to assist in the diagnosis of plant conditions to evaluate the potential or actual release of radioactive materials to the environment.

In addition, major feature H calls for the application to describe an EOC for each offsite organization, for use in directing and controlling response functions.

13.3.3.9.3 Technical Evaluation

In SSAR Sections 13.3.2.2.2.h.1 through 13.3.2.2.2.h.2, the applicant offered a slightly revised statement of the general guidance criteria from NUREG-0696 for the TSC, OSC and EOF, when compared to that provided above. In order for the NRC staff to determine whether major feature H is acceptable, the applicant needs to address the adequacy of the facilities and related equipment in support of emergency response, and to address, with specificity, such

facility and equipment features as location, size, structure, function, habitability, communications, staffing and training, radiological monitoring, instrumentation, data system equipment, power supplies, technical data and data systems, and record availability and management. This is **Open Item 13.3-3**.

The staff finds that the State and risk jurisdictions adequately describe EOCs for use in directing and controlling emergency response functions, in that COVERP Section II.C describes the establishment of the State EOC and its functions, stating that the State would coordinate the offsite emergency operations from the Virginia EOC (staffed 24 hours a day, 7 days a week) and the respective local government EOCs. In addition, the county RERPs describe the establishment, location, and function of the local EOCs.

13.3.3.9.4 Conclusions

As discussed above, the applicant needs to provide an adequate description of emergency facilities and equipment for the TSC, OSC, and EOF, consistent with the guidance in RS-002 and Supplement 2 (i.e., Supplement 2, evaluation criteria H.1 and H.2). The NRC and FEMA will determine whether this major feature is acceptable and document its determination in the FSER, based on information the applicant has provided to date and its response to Open Item 13.3-3.

13.3.3.10 Accident Assessment (Supplement 2, Major Feature I)

13.3.3.10.1 Technical Information in the Application

SSAR Section 13.3.2.2.2.i.1, "Contacts and Arrangements for Meteorological Information," states that the existing NAPS meteorological monitoring system has the capability to collect data for making near real-time predictions of atmospheric effluent transport and diffusion. The data would be accessible in the new unit's control room, TSC, and EOF. The applicant would also make suitable meteorological information available to the State, as described in SSAR Section 13.3.2.2.2.e. SSAR Section 13.3.2.2.2.f describes communications with the State, risk jurisdictions, and Federal government EROs.

The National Oceanic and Atmospheric Administration (NOAA) is the primary agency within the U.S. Department of Commerce responsible for providing assistance to Federal, State, and local organizations in responding to a radiological emergency under the provisions of the FRERP, as described in SSAR Section 13.3.2.2.2.c. Within NOAA, the National Weather Service is the primary source of weather data, forecasts, and warnings for the United States. Section 13.3.3.4 of this SER discusses the FRERP.

NAEP Section 7.3.3, "Meteorological Monitoring," states that the station's meteorological monitoring system provides the capability for predicting atmospheric effluent transport and diffusion. The system consists of a primary and a backup tower. Dominion Resources chose the tower locations to represent regional conditions. Instruments located at these towers provide data to the meteorological information and dose assessment system (MIDAS) via the plant computer system, which is transmitted to both the NAPS control room and Dominion Resource's weather center at Innsbrook, Virginia. NAEP Table 7.2, "Meteorological Monitoring System Parameters," provides a listing of the parameters measured, and all meteorological data are available by means of a dial-up link at meteorological operations in Richmond, Virginia.

SSAR Section 13.3.2.2.i.2, "Contacts and Arrangements for Field Monitoring," states that Dominion would use field monitoring to obtain offsite radiological data within the 10-mi EPZ, and that Dominion would coordinate field monitoring activities from the EOF with VDH, under the provisions of the COVRRP. SSAR Section 13.3.2.2.i.3, "Contacts and Arrangements for Locating and Tracking Plume," states that Dominion and the State would rely on DOE for airborne radioactive plume tracking under the provisions of the FRERP, as described in SSAR Section 13.3.2.2.c.

NAEP Section 7.3.2, "Radiological Monitoring," also addresses the capabilities and resources for field monitoring within the 10-mi EPZ. It states that Dominion would use both fixed and portable radiation monitoring equipment to perform dose assessments. It would use air samplers and thermoluminescent dosimeters (TLDs) to obtain offsite data. In addition, the State has TLD monitoring points located around the NAPS site, which serve to verify data. NAEP Figures 7.1 and 7.2 identify dosimetry and air sampler locations within the 10-mi EPZ.

NAEP emergency plan implementing procedure (EPIP)-4.01, "Radiological Assessment Director Controlling Procedure," provides guidance for conducting dose assessment, source term determination, atmospheric diffusion factor determination, monitoring team activities, personnel monitoring and decontamination, monitoring of onsite facilities, evacuation, respiratory protection, sampling and sample analysis, and use of the MIDAS computer model. The NAPS maintains fixed laboratory equipment to support sampling analysis and monitoring, including reading TLDs. The equipment includes multichannel analyzers, proportional counters, a tritium analyzer, and whole body counters.

SSAR Section 13.3.2.2 states that the ESP site is adjacent to a preexisting nuclear facility with existing State and local emergency plans. The SSAR, therefore, relies on and refers to the information contained in these existing plans. There are no significant differences between major features proposed in the application and the major features discussed in existing plans and relied on in the application.

The State response organization is based on normal governmental structures and channels of communications. The State coordinates overall response, and BRH provides technical advice and assistance on radiological accident assessment and radiological fielding monitoring. Upon declaration of an alert (or higher) emergency class, VDEM would notify VDH, and BRH would implement its response procedures in accordance with the COVRRP. Appendix 5, "Accident Assessment," to the COVRRP states that an RERT, composed of personnel from State agencies and supplemented by personnel from the nuclear facility and Federal agencies, would perform State radiological assessment activities. The RERT would operate from the State EOC. Depending on the release parameters, the State does not anticipate full Federal participation until after the emergency phase, at which time it would rely on DOE to help develop information on the deposition of radioactive materials.

State field teams would coordinate their activities with utility and county teams, and would obtain area radiation dose rates, as well as air and environmental samples. The county RERPs describe local responsibilities during a radiological emergency at the NAPS. These include providing personnel and equipment, as needed, to supplement BRH field monitoring. The State has a mobile radiological laboratory to perform rapid sample assessment. The Division of Consolidated Laboratories will make available the services of additional radiological laboratories, and the State has access to Federal radiological field monitoring resources under

the provisions of the FRERP. SSAR Section 13.3.2.2.c discusses the FRERP, with regard to locating and tracking the airborne radioactive plume. Section 13.3.3.4 of this SER discusses additional accident assessment capabilities and resources. Section 13.3.2, 13.3.3.2, 13.3.3.4, and 13.3.3.13 of this SER describe contacts and arrangements in support of accident assessment.

In RAI 13.3-14(d), the staff asked the applicant for additional information concerning the assumptions in the application and assumptions in the COVRERP regarding reliance on DOE for airborne radioactive plume tracking. The applicant responded to this RAI, but not in time for the information to be considered in this DSER.

13.3.3.10.2 Regulatory Evaluation

SSAR Section 13.3.2.2 presents the major features of the applicant's emergency plan. The applicant stated that it prepared the information presented in SSAR Section 13.3.2.2 in accordance with 10 CFR 52.17(b)(2)(i) and Appendix E to 10 CFR Part 50, and considered the guidance of Supplement 2. SSAR Section 13.3.2.2.2 states that Supplement 2 presents planning standards and evaluation criteria applicable to a major features emergency plan. The staff finds that the applicant identified the regulatory requirements and guidance applicable to the proposed major features of emergency plans for an ESP application.

In its review of the application, the staff considered the regulatory requirements in 10 CFR 52.17(b)(2)(i), 10 CFR 52.18, and 10 CFR Part 50, Appendix E, Sections III and IV.B. Under 10 CFR 52.17(b)(2)(i), an applicant for an ESP may propose major features of the emergency plans for NRC review and approval, in consultation with FEMA, in the absence of complete and integrated emergency plans. According to 10 CFR 52.18, after consultation with FEMA, the NRC must determine whether the major features of emergency plans submitted under 10 CFR 52.17(b)(2)(i) are acceptable. RS-002 and Supplement 2 provide guidance concerning the review and evaluation of emergency planning information provided in an ESP application. Supplement 2 also provides specific evaluation criteria for major features of emergency plans, including those which apply to major feature I, "Accident Assessment."

Major feature I calls for the applicant to describe the methods, systems, and equipment for assessing and monitoring actual or potential offsite consequences of a radiological emergency condition. The applicant should also describe the capability and resources associated with acquiring meteorological information and performing field monitoring, and contacts and arrangements with offsite organizations (including Federal and State resources).

13.3.3.10.3 Technical Evaluation

SSAR Section 13.3.2.2.i.1 states that the existing NAPS meteorological monitoring system has the capability to collect data for making near real-time predictions of atmospheric effluent transport and diffusion. The data would be accessible in the new unit's control room, TSC, and EOF. The applicant would make suitable meteorological information available to the State. In addition, NOAA provides assistance to Federal, State, and local organizations in responding to a radiological emergency under the provisions of FRERP. The staff finds that this information adequately describes the contacts and arrangements for acquiring and evaluating meteorological information, including making the data available to the State.

SSAR Section 13.3.2.2.i.2 states that Dominion would use field monitoring to obtain offsite radiological data, and that it would coordinate field monitoring activities from the EOF with VDH, under the provisions of the COVRERP. SSAR Section 13.3.2.2.i.3 states that Dominion and the State would rely on DOE for airborne radioactive plume tracking under the provisions of FRERP. NAEP Section 7.3.2 states that Dominion would use both fixed and portable radiation monitoring equipment to perform dose assessment, and would use air samplers and TLDs to obtain offsite data. The equipment includes multichannel analyzers, proportional counters, a tritium analyzer, and whole body counters.

The State has TLD monitoring points located around the NAPS site, which would serve to verify data from the site, and a mobile radiological laboratory to perform rapid sample assessment. The State would coordinate overall response, and BRH would provide technical advice and assistance on radiological accident assessment and radiological field monitoring. State field teams would coordinate their activities with utility and county teams, and would obtain area radiation dose rates, as well as air and environmental samples. County responsibilities would include providing personnel and equipment, as needed, to supplement BRH field monitoring. The State also has access to Federal radiological field monitoring resources under the provisions of the FRERP.

The applicant responded to RAI 13.3-14(d), which called for information on the assumptions in the application and in the COVRERP regarding reliance on DOE for airborne radioactive plume tracking. This response, however, was received too late to be considered in this DSER. Consideration of this information is **Open Item 13.3-4**. The NRC and FEMA will review the response to this RAI and will describe the results of that review in the FSER.

13.3.3.10.4 Conclusions

As discussed above, the staff needs to review the applicant's response to RAI 13.3-14(d) in order to determine whether proposed major feature I is acceptable. The applicant responded to this RAI too late for consideration of the response in this DSER. The NRC and FEMA will determine acceptability of this major feature and document that determination in the FSER, based on information the applicant has provided to date, including its response to this RAI.

13.3.3.11 Protective Response (Supplement 2, Major Feature J)

13.3.3.11.1 Technical Information in the Application

SSAR Section 13.3.2.2.j.1, "Evacuation of Onsite Individuals," states that the existing emergency assembly areas that support the NAPS would also support a new reactor(s) constructed on the ESP site. If evacuation of onsite individuals is necessary, Dominion would direct evacuees to either the primary or secondary remote assembly area (RAA), depending on specific radiological and environmental conditions. SSAR Figure 13.3-4, "Remote Assembly Areas," depicts the onsite evacuation routes, RAAs, and State evacuation assembly center (EAC). Evacuees would use personal vehicles for transportation. Dominion would survey evacuees for contamination following events involving a release and would decontaminate them, if necessary, before releasing them from the RAA.

In RAI 13.3-6, the staff asked the applicant to clarify the availability of transportation to emergency assembly areas for onsite individuals who do not have their personal vehicle

available onsite. In its response, the applicant stated that those individuals would travel as passengers in personal vehicles driven by others, which is the approach currently implemented for the existing NAPS site.

NAEP Section 6.3.1, "Offsite Criteria for the 10 Mile Emergency Planning Zone," states that Dominion Resources has established evacuation zones, routes, and relocation centers in the event that an evacuation is recommended, and publishes this information in brochures distributed by the State. NAEP Section 6.3.2, "Onsite Criteria for the Exclusion Area," states that in the event of an onsite evacuation, radiation monitoring teams would be dispatched to the appropriate RAA. Evacuees using personal vehicles would proceed to either the primary or secondary RAA. NAEP Figure 6.2, which is identical to SSAR Figure 13.3-4, identifies the RAAs.

SSAR Section 13.3.2.2.j.2, "Protective Action Recommendations," states that the senior Dominion representative would recommend initial offsite protective actions to the State within 15 minutes of declaring a general emergency, based on plant conditions. The State and risk jurisdictions would notify the public and implement the appropriate protective measures. Followup protective action recommendations (PARs) from the NAPS site would be based on current meteorological data and dose projections. The applicant stated that this guidance is based on NUREG-0654/FEMA-REP-1, Supplement 3, "Criteria for Preparation and Evaluation of Radiological Emergency Response Plans and Preparedness in Support of Nuclear Power Plants—Criteria for Protective Action Recommendations for Severe Accidents—Draft Report for Interim Use and Comment," issued July 1996, and EPA 400-R-92-001, "Manual of Protective Action Guides and Protective Actions for Nuclear Incidents," issued May 1992.

NAEP Section 6.3, "Protective Actions," further states that for the existing North Anna units, specific PARs are tied to plant and meteorological conditions. An EPIP specifically designed to meet the 15-minute PAR to the State includes these recommendations. The initial PAR for any event classified as a general emergency would be to evacuate in all directions out to 8 kilometers (5 miles). Dominion would declare a site area emergency when offsite doses are projected to exceed 0.001 Sv (0.1 rem) total effective dose equivalent (TEDE), or 0.005 Sv (0.5 rem) thyroid committed dose equivalent (CDE). A general emergency would be declared when offsite protective action guidelines (PAGs) of 0.01 Sv (1.0 rem) TEDE and/or 0.05 Sv (5.0 rem) thyroid CDE are projected to be exceeded because of a direct radiation or inhalation hazard, or when nonradiological conditions exceed general emergency EALs.

In RAI 13.3-7, the staff asked the applicant to describe the mechanism for recommending protective actions to the appropriate State and local authorities, including how EALs would be used to determine PARs (e.g., sheltering, evacuation, use of KI), consistent with EPA 400-R-92-001. In addition, the staff asked the applicant to describe how it would provide those recommendations to the appropriate State and local authorities, and how it would provide changes to, or termination of, PARs to State and local authorities. In its response, the applicant stated that in the event of a radiological emergency, the plant staff would analyze conditions and classify the event using the EALs developed pursuant to Appendix E to 10 CFR Part 50. In most cases, the initial PAR would be made without the benefit of dose assessment results (i.e., based on plant conditions). Evacuation decisions would be based on dose projections or offsite monitoring results exceeding evacuation dose thresholds of 0.01 Sv (1 rem) TEDE or 0.05 Sv (5 rem) thyroid CDE. A recommendation by Dominion for the State to issue KI to the general public would be based on reaching a projected dose of 0.05 Sv (5 rem) thyroid CDE at or

beyond the NAPS site boundary. PAR revisions would consider actions taken in response to previous PARs. Dominion would formally communicate initial PARs and any changes directly to the State EOC using a dedicated automatic ring-down circuit, with a commercial telephone as backup. The State would make a protective action decision and notify the affected populace, as described in SSAR Section 13.3.2.2.2.e.3. Dominion would discuss termination of PARs with the State before issuance to ensure that PAR termination would not adversely affect offsite response actions.

The applicant further stated in its response to RAI 13.3-7 that 10 CFR 50.47(b)(10), Supplement 3 to NUREG-0654/FEMA REP-1, and EPA 400-R-92-001 contain the current Federal guidance relating to PARs. However, the guidance in Supplement 3 may change. As such, the applicant stated that it responded to this RAI with the understanding that, in the context of the North Anna ESP application, Federal guidance may change before it would become applicable.

SSAR Section 13.3.2.2.2.j.3 states that the ETE applies to the ESP site, and that evacuation time estimates based on different affected population areas and weather conditions range from 85 to 105 minutes. SSAR Section 13.3.2.2.2.j.4, "Implementation of Protective Measures," states that the ETE includes maps showing the site and the 10-mi EPZ, transportation networks and evacuation routes, topographical features, political boundaries, and the PAZs. In addition, population information is presented in 2-mi, 5-mi, and 10-mi ring and 16-sector format, as well as by PAZ. Section 13.3.3.6 of this SER discusses the means for notifying the resident and transient population, while Section 13.3.1 of this SER provides additional information regarding the ETE.

SSAR Section 13.3.2.2 states that the ESP site is adjacent to a preexisting nuclear facility with existing State and local emergency plans. The SSAR, therefore, relies on and refers to the information contained in these existing plans. There are no significant differences between major features proposed in the application and the major features discussed in existing plans and relied on in the application.

For the NAPS site, NAEP Section 6.3.1, "Offsite Criteria for the 10 Mile Emergency Planning Zone (EPZ)," states that State and local officials are responsible for warning the public within the 10-mi EPZ, and that the State Department of Police would assist them. The early warning system sirens serve as the primary method for warning the public. Other warning methods may include telephone, television and radio EAS stations, public address systems, patrol car bullhorns, and personal contact. Either the State or county would release written preplanned messages to the media, which would provide protective action instructions. The COVRERP states that the local governments have the responsibility to educate their citizens on possible radiological hazards, emergency notification, evacuation routes, assembly points, and other protective measures.

COVRERP Section VII.D.1.a states that the State and neighboring local governments would provide onsite assistance as requested and as mutually agreed to with the facility operator. Similarly, the Louisa County RERP states that the County would also provide required, mutually agreed upon assistance.

The COVRERP and county RERPs contain maps that show the EPZ, PAZs (where evacuation or sheltering would be implemented), and evacuation routes. They also contain tables that

show the population distribution in the counties and in the PAZs. The plans also list the EACs (i.e., relocation centers). Each county RERP contains information concerning the transportation of either transportation-dependent or special needs populations in their counties. State assets would be available as backup, if needed. The only institutionalized populations are those in schools in Louisa and Spotsylvania County. Public school buses would provide transportation from the affected school(s) to the designated EACs. In addition, the counties would use school buses to evacuate other segments of the population without access to private transportation.

For the roadways, the local sheriffs' departments are responsible for manning the traffic and access control points during and following an accident. Both the COVERERP and county RERPs list these points. Private vehicles would be the primary means of transportation during an evacuation. School buses, law enforcement vehicles, and ambulances would supplement these vehicles, as needed. The county RERPs for Caroline, Hanover, Louisa, and Spotsylvania Counties provide the means for dealing with potential impediments to using evacuation routes.

The State and local plans list the EACs, which are at least 15 miles from the ESP site. Appendix 8, "Evacuation Assembly Center Procedures," to the county RERPs provides the means for registering and monitoring evacuees at the EACs. The COVERERP and county RERPs designate evacuation as the primary protective action. Tab A to Appendix 6 to the COVERERP considers other factors, not addressed in the county RERPs, such as shelter availability, meteorological conditions, ETEs and risks, projected and actual doses, and plant conditions. Except for Orange County, the local plans list sheltering as an option, but do not provide guidance for when sheltering should be considered.

The COVERERP and county RERPs contain information concerning the use of KI by emergency workers. The COVERERP states that the State health director is responsible for authorizing emergency workers to use KI. Appendix 6 to the county RERPs provides details for implementing the KI decision for emergency workers. The COVERERP also states that individuals responsible for the care of institutionalized persons would be responsible for their protection, including the use of KI. The county RERPs do not consider the use of KI by institutionalized persons, since evacuation and sheltering actions would make KI use unnecessary.

In RAIs 13.3-14(e), (f), (g), and (h), the staff asked the applicant for additional information concerning use of the Patrick Henry High School, agreements for assistance from offsite agencies, description of measures for dealing with potential impediments to use of evacuation routes, and when sheltering should be considered. The applicant responded to these RAIs, but not in time for the information to be considered in this DSER.

In RAI 13.3-15, the staff asked the applicant for additional information concerning the ETE regarding road capacities and travel times, traffic control, worst-case scenario, persons without vehicles, schools, working people, evacuation confirmation, projected demography, and computer modeling of the population. In addition, the staff asked the applicant for figures or maps that showed various characteristics of the area surrounding the ESP site. The applicant has not yet responded to RAI 13.3-15.

13.3.3.11.2 Regulatory Evaluation

SSAR Section 13.3.2.2 presents the major features of the applicant's emergency plan. The applicant stated that it prepared the information presented in SSAR Section 13.3.2.2 in accordance with 10 CFR 52.17(b)(2)(i) and Appendix E to 10 CFR Part 50, and considered the guidance in Supplement 2. SSAR Section 13.3.2.2.2 states that Supplement 2 presents planning standards and evaluation criteria applicable to a major features emergency plan. The staff finds that the applicant identified the regulatory requirements and guidance applicable to the proposed major features of emergency plans for an ESP application.

In its review of the application, the staff considered the regulatory requirements in 10 CFR 52.17(b)(2)(i), 10 CFR 52.18, and 10 CFR Part 50, Appendix E, Sections III, IV.B and IV.D. Under 10 CFR 52.17(b)(2)(i), an applicant for an ESP may propose major features of the emergency plans for NRC review and approval, in consultation with FEMA, in the absence of complete and integrated emergency plans. According to 10 CFR 52.18, after consultation with FEMA, the NRC must determine whether the major features of emergency plans submitted under 10 CFR 52.17(b)(2)(i) are acceptable. RS-002 and Supplement 2 provide guidance concerning the review and evaluation of emergency planning information provided in an ESP application. Supplement 2 also provides specific evaluation criteria for major features of emergency plans, including those which apply to major feature J, "Protective Response."

Major feature J calls for the applicant to describe protective actions for the 10-mi EPZ for the public and emergency workers, including evacuation routes, transportation, and handling evacuees. The application should identify guidelines for the choice of protective actions, consistent with Federal guidance, as well as the bases and mechanisms for recommending protective actions to State and local authorities. The application should describe each organization's concept for implementing protective actions and describe contacts and arrangements with offsite agencies. In addition, the applicant should prepare an ETE for the 10-mi EPZ.

13.3.3.11.3 Technical Evaluation

In SSAR Section 13.3.2.2.j.1, the applicant stated that onsite individuals would be evacuated, using personal vehicles for transportation, to either the primary or secondary RAA, depending on specific radiological and environmental conditions. SSAR Figure 13.3-4 shows the separate locations of the RAAs and State EAC, and the associated evacuation routes. The RAAs are located in separate directions from the ESP site, and a third location is provided by the State EAC. The staff finds that the RAAs and State EAC are suitable, in that they provide adequate alternative offsite evacuation locations in the event of inclement weather, high traffic density, and specific radiological conditions.

The staff finds that SSAR Section 13.3.2.2.j.2 adequately describes a mechanism for recommending protective actions to the appropriate State and local authorities. The application states that the senior Dominion representative would be responsible for making initial and followup PARs, and that EPA 400-R-92-001 would serve as the basis for such recommendations. The staff did not consider the possibility of a change to the Federal guidance relating to PARs germane to its review of the SSAR. Rather, the staff applied current requirements. A COL or OL applicant should address any such changes, and the staff will determine compliance with the requirements in this area during a COL or OL review.

The staff found that the EACs are at least 15 miles from the ESP site, and that the registration and monitoring of evacuees would be conducted in accordance with the EAC procedure, contained in the county RERPs. In addition, the staff found that the COVRERP and county RERPs designate evacuation as the primary protective action, and that Tab A to Appendix 6 to the COVRERP considers other factors, such as shelter availability, meteorological conditions, ETEs and risks, projected and actual doses, and plant conditions.

The COVRERP and county RERPs state that the State and local governments would provide onsite assistance, as requested and as mutually agreed to with the NAPS. The revised letters of agreement, discussed in Section 13.3.2 of this SER, address such mutually agreed upon assistance.

The staff finds that the application, the NAEP, the COVRERP, and county RERPs provide maps (or lists) that adequately illustrate population distribution around the site, evacuation areas, evacuation routes, shelter areas, and relocation centers in host areas. The staff finds that the proposed means for notifying all segments of the resident and transient population are adequate, in that the primary method for warning the public is through the use of the early warning system sirens, with additional notification capabilities through the use of telephones, television and radio EAS stations, public address systems, patrol car bullhorns, and personal contact. The warnings would consist of preplanned messages, which provide specific protective action instructions. Individuals responsible for the care of institutionalized persons would also be responsible for their protection, including sheltering, evacuation, and the use of KI. The State health director would authorize the use of KI by emergency workers and institutionalized persons.

The applicant responded to RAIs 13.3-14(e)-(h), which called for information concerning the use of Patrick Henry High School, agreements for assistance from offsite agencies, measures for dealing with potential impediments to use of evacuation routes, and consideration of sheltering. The responses, however, were received too late to be considered in this DSER. Consideration of this information is **Open Item 13.3-5**. The information regarding the ETE requested in RAI 13.3-15, to which the applicant has yet to respond, is **Open Item 13.3-6**. The NRC and FEMA will review the responses to these RAIs and will describe the results of that review in the FSER. Section 13.3.2 of this SER discusses the associated description of contacts and arrangements made with offsite agencies with emergency planning responsibility.

13.3.3.11.4 Conclusions

As discussed above, the staff needs to review the applicant's response to RAIs 13.3-14(e)-(h), as well as its pending response to RAI 13.3-15, in order to determine whether proposed major feature J is acceptable. The applicant responded to RAIs 13.3-14(e)-(h) too late for consideration of the response in this DSER. The NRC and FEMA will determine acceptability of this major feature and document that determination in the FSER, based on information the applicant has provided to date, including its response to RAIs 13.3-14(e)-(h); as well as its future response to RAI 13.3-15.

13.3.3.12 Radiological Exposure Control (Supplement 2, Major Feature K)

13.3.3.12.1 Technical Information in the Application

SSAR Section 13.3.2.2.2.k, "Radiological Exposure Control," states that Dominion would maintain doses to emergency response personnel within the limits of 10 CFR Part 20, "Standards for Protection Against Radiation," under normal operating conditions, and that these personnel may, because of necessity, receive a once-in-a-lifetime exposure to contamination and radiation up to the 10 CFR Part 20 annual limits, not including accumulated occupational exposure.

SSAR Section 13.3.2.2.2.k.2, "Onsite Radiation Protection Program," states that the existing NAPS radiological protection and onsite contamination control procedures would apply to the ESP site, or future radiological protection procedures would address these functions. SSAR Section 13.3.2.2.2.k.3, "Tracking Doses," states that emergency workers at the ESP site would receive direct reading and permanent record dosimeters, and that Dominion would maintain dose records in accordance with the existing NAPS radiological protection procedures or future radiological protection procedures.

The guidelines for emergency exposure limits are consistent with EPA 400-R-92-001. SSAR Section 13.3.2.2.2.k.4, "Authorization of Exposure Above Dose Limits," states that approval from the emergency coordinator is necessary for planned exposures greater than the 10 CFR Part 20 annual limits. Under limited circumstances, exposure limits greater than 5 times the 10 CFR Part 20 annual limits may be allowed, but only to certain volunteers.

NAEP Section 5.2.1.1, "Station Emergency Manager," states that the station emergency manager, who ultimately reports to the recovery manager, has the responsibility for managing and directing emergency operations during the course of the emergency, including the authorization of emergency exposure limits. NAEP Section 6.4.1, "Emergency Exposure Limits," states that station emergency manager approval is necessary for planned exposures greater than the 10 CFR Part 20 annual limits. The guidelines for emergency exposure limits, which are specified in the NAPS EIPs, are consistent with EPA dose limits for workers performing emergency services.

In RAI 13.3-10, the staff asked the applicant to clarify who authorizes exposures greater than the 10 CFR Part 20 annual limits. In its response, the applicant stated that the NAPS station emergency manager functions as the emergency coordinator for the NAPS and can authorize emergency workers to receive doses in excess of the 10 CFR Part 20 limits. In addition, the applicant stated that a description of the onsite emergency organization would be provided in a COL application. While the applicant has made no decisions regarding organizational details for the prospective new reactors, it stated that it intends no substantial differences between the NAEP and SSAR Section 13.3.

NAEP Section 6.4.2, "Decontamination and First Aid," states that the NAPS health physics procedures and EIPs specify levels of permissible radioactive contamination for workers and equipment. Personnel must take actions when levels for equipment or areas exceed the limits established in the health physics procedures. Any detected personnel contamination would initiate appropriate evaluation and decontamination, in accordance with these procedures. An EIP also provides for the monitoring of vehicles and personnel at the RAAs.

SSAR Section 13.3.2.2.2.k.5, "Decontamination," states that Dominion would provide adequate supplies for personnel decontamination and make provisions for decontamination, as specified in the existing units' radiological protection procedures or as addressed in future procedures. Health physics personnel can perform decontamination at the existing units or the ESP site, RAA, or Patrick Henry High School. SSAR Section 13.3.2.2.2.j.1, "Evacuation of Onsite Individuals," states that decontamination agents and supplies are available at the NAPS site, and can be transported to the RAAs to provide decontamination capabilities. Injured and contaminated persons would be decontaminated to the extent achievable, or transported to the hospital, as described in SSAR Section 13.3.2.2.2.i.

SSAR Section 13.3.2.2 states that the ESP site is adjacent to a preexisting nuclear facility with existing State and local emergency plans. The SSAR, therefore, relies on and refers to information contained in these existing plans. There are no significant differences between major features proposed in the application and the major features discussed in existing plans and relied on in the application.

Appendix 6, "Radiological Exposure Control," to the COVRERP states that BRH would issue self-reading pocket dosimeters and TLDs to emergency workers who enter the affected area. In addition, pocket dosimeters, chargers, and TLDs are prepositioned in each risk and host jurisdiction. Local government has the primary responsibility for radiation exposure control, with State agencies providing technical advice and guidance. The State has accepted the EPA PAGs, and the COVRERP provides a variety of protective actions that are consistent with the PAG limits.

Radiation exposure control for emergency workers is accomplished by several means, including continuous monitoring and limiting radiation exposures. In the initial stages of an incident, the BRH would use a default exposure control ratio (or dose conversion multiplier) to factor in internal exposure that is not measurable with a pocket dosimeter. The BRH would adjust an initial exposure control ratio, which is based on a default accident source term, if accident assessment indicates a change is necessary to reflect actual conditions. The emergency workers would divide the pocket dosimeter readings by the exposure control ratio in order to determine their reporting, turn back, and lifesaving levels. The county RERPs give specific instructions regarding the issuance of personal dosimetry.

Appendix 6 to the COVRERP provides exposure limits for emergency workers and specifies reporting, turn back, and lifesaving levels. The emergency worker exposure limits and exposure control ratio in the county RERPs are consistent with those in the COVRERP. The EOC radiological officer (BRH) must authorize an emergency worker to exceed the established limits. If the assignment is critical and a replacement is unavailable, the EOC radiological officer may authorize a higher dose, up to the lifesaving level.

The State performs radiological decontamination at the EACs. Appendix 6 to the COVRERP provides general instructions relating to monitoring and decontamination of evacuees and emergency workers. In addition, Appendix 10, "Decontamination, Re-Entry, and Return," to the COVRERP specifies action levels for determining the need for decontamination and describes the means for decontamination of people, vehicles, livestock, structures, crops, soil, and any other surfaces that are contaminated with radioactive material. The county RERPs include procedures for monitoring and decontamination that are consistent with the COVRERP. The

State would transport individuals who cannot be decontaminated below prescribed action levels to a medical facility that can handle radiologically contaminated patients.

In RAI 13.3-14(i), the staff asked the applicant for additional information regarding the decision-making guidance and authority in the State and local plans for authorizing emergency workers to exceed Environmental Protection Agency (EPA) exposure limits. In addition, in RAI 13.3-14(j), the staff asked the applicant for additional information regarding measures to ensure that use of the exposure control ratio does not result in emergency workers exceeding EPA exposure limits. The applicant responded to these RAIs, but not in time for the information to be considered in this DSER.

13.3.3.12.2 Regulatory Evaluation

SSAR Section 13.3.2.2 presents the major features of the applicant's emergency plan. The applicant stated that it prepared the information presented in SSAR Section 13.3.2.2 in accordance with 10 CFR 52.17(b)(2)(i) and Appendix E to 10 CFR Part 50, and considered the guidance in Supplement 2. SSAR Section 13.3.2.2.2 states that Supplement 2 presents planning standards and evaluation criteria applicable to a major features emergency plan. The staff finds that the applicant identified the regulatory requirements and guidance applicable to the proposed major features of emergency plans for an ESP application.

In its review of the application, the staff considered the regulatory requirements in 10 CFR 52.17(b)(2)(i), 10 CFR 52.18, and 10 CFR Part 50, Appendix E, Sections III, IV.A, IV.B and IV.E. Under 10 CFR 52.17(b)(2)(i), an applicant for an ESP may propose major features of the emergency plans for NRC review and approval, in consultation with FEMA, in the absence of complete and integrated emergency plans. According to 10 CFR 52.18, after consultation with FEMA, the NRC must determine whether the major features of emergency plans submitted under 10 CFR 52.17(b)(2)(i) are acceptable. RS-002 and Supplement 2 provide guidance concerning the review and evaluation of emergency planning information provided in an ESP application. Supplement 2 also provides specific evaluation criteria for major features of emergency plans, including those which apply to major feature K, "Radiological Exposure Control."

Major feature K calls for the applicant to describe an onsite radiation protection program and the means for determining and controlling radiological exposures to emergency workers and volunteers (onsite and offsite), including a decision chain for authorizing exposures in excess of EPA dose limits. The application should also describe specific action levels and the means for radiological decontamination of personnel (including personnel wounds), vehicles, equipment, supplies and possessions.

13.3.3.12.3 Technical Evaluation

In SSAR Section 13.3.2.2.2.k, the applicant stated that it would maintain the emergency worker dose limits within the limits of 10 CFR Part 20, and that these limits are consistent with EPA 400-R-92-001. In addition, the existing (or future) NAPS radiological protection and onsite contamination control procedures would apply to the ESP site. The staff finds that the use of the existing NAPS radiological protection and onsite contamination procedures for the ESP site is acceptable, to the extent that they would be expanded to incorporate relevant aspects of a proposed new reactor design in a COL or OL application. The staff will determine the adequacy

of such incorporation during a COL or OL review. The staff did not consider the applicability or adequacy of future radiological protection and onsite contamination procedures to be required for a major features review and, as such, did not review it. A COL or OL applicant will address any such future procedures, and the staff will determine compliance with the requirements in this area during a COL or OL review. The staff further finds that the application adequately describes the guidelines for dose limits and onsite radiation protection program for the ESP site.

The applicant stated that emergency workers at the ESP site would receive direct reading and permanent record dosimeters, and that it would maintain dose records in accordance with the existing NAPS radiological protection procedures. State and local emergency workers would also receive self-reading pocket dosimeters and TLDs, in accordance with the COVRERP and county RERPs. The State and counties would determine State and local emergency worker doses through the use of radiation exposure record forms. While the local governments have the primary responsibility for radiation exposure control, BRH would provide technical oversight and authority to permit exposures in excess of the EPA dose limits. The staff finds that this is acceptable, in that it adequately describes how each organization would determine the doses received by emergency personnel, including how they would acquire and distribute dosimeters.

With regard to authorizing emergency workers to incur exposures in excess of the EPA dose limits, the applicant stated in SSAR Section 13.3.2.2.2.k.4 that approval from the emergency coordinator is necessary for planned exposures greater than the 10 CFR Part 20 annual limits. NAEP Section 6.4.1 states that such approval would come from the NAPS station emergency manager, who would function as the emergency coordinator.

Both the COVRERP and county RERPs address the authority for State and local emergency workers to incur exposures in excess of the EPA dose limits. The EOC radiological officer (BRH) should provide authorization to exceed the turn back level, which is determined through use of pocket dosimeter readings and an exposure control ratio. The BRH may adjust the exposure control ratio to reflect actual conditions.

For radiological monitoring and decontamination, the staff finds that the existing units' radiological protection procedures adequately address the action levels and means for decontamination of ESP site personnel and equipment. The COVRERP and county RERPs, together, also adequately describe action levels and the specific means for decontamination. The staff did not consider the extent to which future radiological protection procedures would address radiological protection and onsite contamination control functions, as stated in SSAR Section 13.3.2.2.2.k.2, to be essential to its review, and therefore did not evaluate this possibility.

The applicant responded to RAI 13.3-14(i) and RAI 13.3-14(j), which called for information concerning guidance and authority on decisions to authorize emergency worker exposure exceeding EPA limits, and measures to ensure that the use of the exposure control ratio does not cause exposures to exceed EPA limits, respectively. The responses, however, were received too late to be considered in this DSER. Consideration of this information is **Open Item 13.3-7**. The NRC and FEMA will review the responses to these RAIs and will describe the results of that review in the FSER.

13.3.3.12.4 Conclusions

As discussed above, the staff needs to review the applicant's response to RAI 13.3-14(i) and RAI 13.3-14(j) in order to determine whether proposed major feature K is acceptable. The applicant responded to these RAIs too late for consideration of the response in this DSER. The NRC and FEMA will determine acceptability of this major feature and will document that determination in the FSER, based on information the applicant has provided to date, including its responses to these RAIs.

13.3.3.13 Medical and Public Health Support (Supplement 2, Major Feature L)

13.3.3.13.1 Technical Information in the Application

SSAR Section 13.3.2.2.2.I, "Medical and Public Health Support," states that the applicant would make contacts and arrangements for medical services for contaminated injured individuals, and that the existing arrangements for the use of the MCVH facilities in Richmond, Virginia, would apply to the ESP site. In the event of a need for its support, Dominion would call ahead to MCVH to alert it to activate its radiation emergency plan.³

SSAR Section 13.3.2.2.2.I further states that MCVH has developed its own radiation emergency plan, which is designed to provide medical care in the case of a radiation emergency. MCVH also supports the NAPS site in the event of occupational or major accidents, including contaminated personnel. In addition, the plan establishes a specialized area of the hospital for treatment with appropriate health physics functions, and implements a coded system to alert hospital team members. The MCVH has radiation monitoring equipment, dosimetry, and protective clothing available, and, based on the quality of the facilities at MCVH, the NRC has accepted the absence of arrangements for a backup hospital. The NAEP includes the MCVH radiation emergency plan as Appendix 10.9.

SSAR Section 13.3.2 states that the emergency plan takes advantage of the emergency planning resources, capabilities, and organization that Virginia Power has already established and currently maintains at the NAPS site. The applicant would extend the existing emergency planning and preparedness activities to include the proposed new unit(s). SSAR Section 13.3.2.2 states that the ESP site is adjacent to a preexisting nuclear facility with existing State and local emergency plans. The SSAR, therefore, relies on and refers to information contained in these existing plans. There are no significant differences between major features proposed in the application and the major features discussed in existing plans and relied on in the application.

COVRERP Tab D to Appendix 4, Attachment 1, states that Mary Washington Hospital and Riverside Hospital serve as backup hospitals for MCVH and would accept radiation exposure patients. Tab D also lists additional hospitals that have radiological response capabilities and would accept radiation exposure patients. The county RERPs also list several hospitals.

³Medical College of Virginia Hospitals/Virginia Commonwealth University (MCVH/VCU), "Radiation Emergency Plan—Virginia Power," January 14, 2003

SSAR Section 13.3.2.2.2.I further states that the COVRERP contains a list of public, private, and military hospitals and other medical service facilities within the Commonwealth of Virginia that can provide medical support for any contaminated or injured individual. COVRERP Tab D to Appendix 4, Attachments 1 and 2, contains this information and includes the name, location, type of facility, capacity, and radiological capabilities. The COVRERP and Sections 13.3.2, 13.3.3.4, and 13.3.3.10 of this SER address the contacts and arrangements pertaining to hospital and medical services. As discussed in Section 13.3.2 of this SER, Dominion updated the letters of agreement to reflect that the existing arrangements would apply to a prospective additional reactor(s) at the NAPS site, consistent with the application.

In RAI 13.3-14(k), the staff asked the applicant for additional information regarding a description in the COVRERP of the capabilities of local and backup hospital and medical services. The applicant responded to this RAI, but not in time for the information to be considered in this DSER.

13.3.3.13.2 Regulatory Evaluation

SSAR Section 13.3.2.2 presents the major features of the applicant's emergency plan. The applicant stated that it prepared the information presented in SSAR Section 13.3.2.2 in accordance with 10 CFR 52.17(b)(2)(i) and Appendix E to 10 CFR Part 50, and considered the guidance in Supplement 2. SSAR Section 13.3.2.2.2 states that Supplement 2 presents planning standards and evaluation criteria applicable to a major features emergency plan. The staff finds that the applicant identified the regulatory requirements and guidance applicable to the proposed major features of emergency plans for an ESP application.

In its review of the application, the staff considered the regulatory requirements in 10 CFR 52.17(b)(2)(i), 10 CFR 52.18, and 10 CFR Part 50, Appendix E, Sections III, IV.A, IV.B and IV.E. Under 10 CFR 52.17(b)(2)(i), an applicant for an ESP may propose major features of the emergency plans for NRC review and approval in consultation with FEMA, in the absence of complete and integrated emergency plans. According to 10 CFR 52.18, after consultation with FEMA, the NRC must determine whether the major features of emergency plans submitted under 10 CFR 52.17(b)(2)(i) are acceptable. RS-002 and Supplement 2 provide guidance concerning the review and evaluation of the emergency planning information provided in an ESP application. Supplement 2 also provides specific evaluation criteria for major features of emergency plans, including those which apply to major feature L, "Medical and Public Health Support."

Major feature L calls for the applicant to describe contacts and arrangements made for medical services for contaminated injured individuals, and develop lists indicating the locations and capabilities of emergency medical services facilities.

13.3.3.13.3 Technical Evaluation

As stated in SSAR Section 13.3.2.2.2.I, arrangements currently exist with MCVH in Richmond, Virginia, in support of the NAPS site, and include application of the MCVH plan. Section I, "Introduction," of the MCVH plan states that it is designed to provide medical care for either a major or minor radiation emergency in the central Virginia region. In addition, the MCVH plan supports Virginia Power's nuclear reactor stations in the event of occupational and/or major accidents. Section VII, "Radiation Emergency Response," states that the MCVH/VCU

Department of Emergency Medicine area is equipped to treat as many as four contaminated patients at one time, depending upon the degree of emergency medical care needed.

COVREPER Tab D to Appendix 4 states that MCVH would act as the primary hospital for an individual who is both contaminated and injured. In addition, it provides a detailed list of backup hospitals. The county RERPs also list several hospitals. The applicant responded to RAI 13.3-14(k), which called for information concerning the COVREPER description of local and backup hospital and medical services capabilities. This response, however, was received too late to be considered in this DSER. Consideration of this information is **Open Item 13.3-8**. The NRC and FEMA will review the response to this RAI and will describe the results of that review in the FSER.

The staff concurs with the applicant's statement in SSAR Section 13.3.2.2.2.I that the NRC has accepted the absence of arrangements for a backup hospital, based on the quality of the facilities at MCVH. For the NAPS site, the NRC had concluded in Supplement No. 11, Appendix B, Section L, to NUREG-0053, "Safety Evaluation Report Related to the Operation of North Anna Power Station, Unit 2," issued August 1980, that VEPCO did not have arrangements for a backup hospital in the local area. However, based on the quality of the facilities at the MCVH, the staff found that this arrangement was acceptable. The staff reviewed the current MCVH plan and finds that it includes a listing in Appendix IX of hospitals that have indicated that they have a radiological emergency response capability and would accept radiation accident victims. This list includes the name, location, type of facility, capacity, and special radiological capabilities. The MCVH plan also describes the contacts and arrangements.

The staff reviewed the existing letters of agreement in Appendix 10.1 to the NAEP, and finds that the letter of agreement with MCVH provides a detailed description of contacts and arrangements between the applicant and MCVH relating to medical services in support of the NAPS site. As discussed in Section 13.3.2 of this SER, Dominion updated the letters of agreement to reflect that the existing arrangements would apply to a prospective additional reactor(s) at the NAPS site, consistent with the application.

13.3.3.13.4 Conclusions

As discussed above, the staff needs to review the applicant's response to RAI 13.3-14(k) in order to determine whether proposed major feature L is acceptable. The applicant responded to this RAI too late for the staff to consider the response in this DSER. The NRC and FEMA will determine acceptability of this major feature and will document that determination in the FSER, based on information the applicant has provided to date, including its response to this RAI.

13.3.3.14 Radiological Emergency Response Training (Supplement 2, Major Feature O)

13.3.3.14.1 Technical Information in the Application

In SSAR Section 13.3.2.2.2.o, "Radiological Emergency Response Training," the applicant states that Dominion intends to rely on the existing Nuclear Power Station Emergency Preparedness Training (NPSEPT) Program Guide to provide the framework for conducting specialized initial training and periodic retraining for Dominion personnel at any new unit(s) that might be constructed on the ESP site.

The NPSEPT Program Guide contains the curriculum design and describes program management, implementation, evaluation, and documentation, and training for personnel designated to fill ERO positions. Emergency preparedness training that is not conducted by the nuclear emergency preparedness (NEP) staff is conducted pursuant to supporting department training program guidance. Procedures provide that the NEP staff verify that this departmental training is consistent with the provisions of the NPSEPT Program Guide. These training programs, taken collectively, establish the initial training and retraining provisions for the existing units' ERO positions. NEP personnel, other than those designated to develop training programs, independently verify that the training specified by the NPSEPT Program Guide is accomplished.

SSAR Section 13.3.2.2.o states that Dominion would incorporate specific training requirements for ERO personnel supporting a new reactor(s) into the NPSEPT Program Guide, and would include specialized initial training and periodic retraining. Dominion would provide specific training for the following emergency response categories:

- response organization coordinators
- accident assessment personnel
- personnel performing radiological monitoring and analysis
- police, security, and firefighting personnel
- first aid and rescue personnel
- local support services personnel
- medical support personnel
- communicators

In addition, NAEP Section 8.3.3, "Emergency Response Personnel Training," states that personnel designated to fill interim, primary, or alternate emergency response positions would receive training in accordance with the NPSEPT Program Guide. NAEP Table 8.1, "Emergency Preparedness Training," lists select emergency response positions, along with an overview of the training provided. Dominion may award equivalency credit for training sessions based on an individual's knowledge of the subject matter.

SSAR Section 13.3.2.2 states that the ESP site is adjacent to a preexisting nuclear facility with existing State and local emergency plans. The SSAR, therefore, relies on and refers to the information contained in these existing plans. There are no significant differences between major features proposed in the application and the major features discussed in existing plans and relied on in the application.

Appendix 12, "Training and Exercises," to the COVRERP states that the licensee will provide site-specific emergency response training to State and local officials and to local emergency units that may be called upon to provide assistance in the event of an emergency. The licensee will invite offsite agencies to participate in annual drills held at the nuclear facility. The VDEM will coordinate and provide an ongoing training program for instructing State and local personnel to perform necessary emergency functions. The VDEM will offer all State and local emergency response personnel comprehensive training through the Radiological Emergency Response Preparedness Program on an annual basis. Federal agencies with radiological emergency responsibilities will provide training to State and local officials within their areas of responsibilities. The county RERPs state that the counties, in conjunction with the State, will participate in and provide training to involved organizations and individuals.

Appendix 12 to the COVERP further states that various personnel (e.g., police, firefighters, first aid, and rescue personnel) will achieve proficiency in their primary skills through recognized ongoing training programs during their professional development. They will acquire unique radiological emergency response skills through in-house training programs and programs presented by the licensee and State agencies. State agency and local department heads will train State and county personnel responsible for transmission of emergency information and instructions. Training will consist of notification form use, verification procedures, recordkeeping, and filing of messages. Training programs will be continuous.

In RAI 13.3-14(I), the staff asked the applicant for additional information regarding a description in the COVERP of the program for qualifying State and local directors/coordinators of emergency response. The applicant responded to this RAI, but not in time for the information to be considered in this DSER.

13.3.3.14.2 Regulatory Evaluation

SSAR Section 13.3.2.2 presents the major features of the applicant's emergency plan. The applicant stated that it prepared the information presented in SSAR Section 13.3.2.2 in accordance with 10 CFR 52.17(b)(2)(i) and Appendix E to 10 CFR Part 50, and considered the guidance in Supplement 2. SSAR Section 13.3.2.2.2 states that Supplement 2 presents planning standards and evaluation criteria applicable to a major features emergency plan. The staff finds that the applicant identified the regulatory requirements and guidance applicable to the proposed major features of emergency plans for an ESP application.

In its review of the application, the staff considered the regulatory requirements in 10 CFR 52.17(b)(2)(i), 10 CFR 52.18, and 10 CFR Part 50, Appendix E, Sections III and IV.F. Under 10 CFR 52.17(b)(2)(i), an applicant for an ESP may propose major features of the emergency plans for NRC review and approval, in consultation with FEMA, in the absence of complete and integrated emergency plans. According to 10 CFR 52.18, after consultation with FEMA, the NRC must determine whether the major features of emergency plans submitted under 10 CFR 52.17(b)(2)(i) are acceptable. RS-002 and Supplement 2 provide guidance concerning the review and evaluation of emergency planning information provided in an ESP application. Supplement 2 also provides specific evaluation criteria for major features of emergency plans, including those which apply to major feature O, "Radiological Emergency Response Training." Major feature O calls for the applicant to describe a radiological emergency response training program for personnel who would implement the RERPs.

13.3.3.14.3 Technical Evaluation

The applicant stated in SSAR Section 13.3.2.2.2.o that the NPSEPT Program Guide would provide the framework for conducting specialized initial and periodic retraining for Dominion personnel at the new units. The staff reviewed NAEP Section 8.3, "Training of Station Personnel," and Section 8.4, "Training of Offsite Support Personnel," and they are consistent with the information provided by the applicant in SSAR Section 13.3.2.2.2.o. In addition, the COVERP and the county RERPs are also consistent with SSAR Section 13.3.2.2.2.o, as well as with the NAEP.

The applicant responded to RAI 13.3-14(I), which called for information concerning the COVERP description of the program for qualifying State and local directors/coordinators of

emergency response. This response, however, was received too late to be considered in this DSER. Consideration of this information is **Open Item 13.3-9**. The NRC and FEMA will review the response to this RAI and will describe the results of that review in the FSER.

13.3.3.14.4 Conclusions

As discussed above, the staff needs to review the applicant's response to RAI 13.3-14(l) to determine whether proposed major feature O is acceptable. The applicant responded to this RAI too late for consideration of the response in this DSER. The NRC and FEMA will determine acceptability of this major feature and will document that determination in the FSER, based on information the applicant has provided to date, including its response to this RAI.

13.3.3.15 *Responsibility for the Planning Effort: Development, Periodic Review, and Distribution of Emergency Plans (Supplement 2, Major Feature P)*

13.3.3.15.1 Technical Information in the Application

SSAR Section 13.3.2.2.2.p, "Responsibility for the Planning Effort," states that the responsibility for the planning effort resides with the Virginia Power NEP Department. The overall authority and responsibility for maintaining emergency preparedness, as well as program implementation associated with the existing NAPS site, would be extended to include the ESP site. Individuals responsible for the planning effort would be afforded training commensurate with their duties and existing knowledge, skills, and abilities. This may include site-specific training and external training from the Emergency Management Institute (EMI), National Emergency Training Center, Harvard School of Public Health, and Nuclear Energy Institute (NEI).

The Virginia Power senior vice president for nuclear operations and chief nuclear officer have the overall authority for maintaining emergency preparedness. The senior vice president for nuclear operations is responsible for program implementation, and the vice president for nuclear support services is responsible for program maintenance. The NAPS site vice president is responsible for NAPS site emergency preparedness. The director of nuclear protection services and emergency preparedness is responsible for maintaining emergency preparedness at the NAPS, developing the ESP site major features emergency plan, and coordinating the plan with other response organizations. The SSAR states that the applicant would extend responsibility for NAPS emergency preparedness to include the ESP site.

With regard to updating emergency plans and agreements, SSAR Section 13.3.2.2.2.p.4, "Plan and Agreement Maintenance," states the following:

Following approval of the emergency planning information in the Dominion ESP site Major Features Emergency Plan, there is no requirement to update the plan or its supporting-organization agreements until after an operating license is issued. Dominion would update the emergency planning information as necessary in a COL application. Any changes that represent a decrease in the effectiveness of the previously approved information with respect to the standards of 10 CFR 50.47(b) or requirements of 10 CFR 50, Appendix E, would be specifically identified and addressed.

SSAR Section 13.3.2.2.2.p.5, "Distribution of Emergency Plans," states that the COL applicant would prepare the ESP site emergency plan as part of its application. Upon issuance, the COL applicant would forward the emergency plan and approved changes to organizations and appropriate individuals with responsibility for its implementation. The COL applicant would mark revised pages to show where changes have been made, and would date or mark the pages with a revision number associated with an effective date.

The SSAR provides a table of contents, which includes emergency planning information contained in Part 2, "Site Safety Analysis Report," of the application. SSAR Table 13.3-2, "Cross Reference to NUREG-0654, Supplement 2," provides the appropriate cross-reference to the Supplement 2 criteria.

SSAR Section 13.3.2.2 states that the ESP site is adjacent to a preexisting nuclear facility with existing State and local emergency plans. The SSAR, therefore, relies on and refers to the information contained in these existing plans. There are no significant differences between major features proposed in the application and the major features discussed in existing plans and relied on in the application.

Appendix 12, "Training and Exercises," to the COVRERP states that individuals within State agencies charged with radiological emergency response planning will undergo training to qualify them in the essential elements of radiological response planning necessary to deal with the offsite effects of an accident at a nuclear facility. Training will emphasize the development of State and local plans that meet current Federal guidelines. The VDEM will supervise continuous training, and will send key planners to the radiological emergency planning course at EMI.

COVRERP Section XI, "Execution," states that the State coordinator of emergency management has overall authority and responsibility for radiological emergency response planning. This includes developing and updating the plans and coordinating them with other response organizations. The county RERPs state that the county director or emergency services coordinator has overall authority and responsibility for radiological emergency response planning in the county. The counties, in conjunction with the State, will participate in, and provide training to, the county director or emergency services coordinator.

COVRERP Section XI also states that the State coordinator of emergency management will maintain, review, update, and certify the COVRERP annually. The State will periodically review letters of agreement, at a minimum of every 2 years. Responsible officials of State agencies and local governments will recommend at any time to the State coordinator of emergency management appropriate improvements or changes. The State will forward the COVRERP, along with approved amendments, to all organizations and individuals responsible for implementation. Revised pages will be dated and marked to show where changes have been made. The COVRERP has a specific table of contents and is cross-referenced to the NUREG-0654/FEMA-REP-1 criteria. Each county will review its plan and procedures annually and will distribute them to individuals and organizations responsible for their implementation. The county RERPs have a record of changes at the beginning of the plans, with revision dates on each page. In addition, they include a specific table of contents and cross-reference to the NUREG-0654/FEMA-REP-1 criteria.

In RAI 13.3-13 and RAIs 13.3-14(m), (n), and (o), the staff asked the applicant for additional information regarding cross-references to Supplement 2, and a description of the training program and review/update of the RERP and agreements for Orange County. The applicant responded to these RAIs, but not in time for the information to be considered in this DSER.

13.3.3.15.2 Regulatory Evaluation

SSAR Section 13.3.2.2 presents the major features of the applicant's emergency plan. The applicant stated that it prepared the information presented in SSAR Section 13.3.2.2 in accordance with 10 CFR 52.17(b)(2)(i) and Appendix E to 10 CFR Part 50, and considered the guidance in Supplement 2. SSAR Section 13.3.2.2.2 states that Supplement 2 presents planning standards and evaluation criteria applicable to a major features emergency plan. The staff finds that the applicant identified the regulatory requirements and guidance applicable to the proposed major features of emergency plans for an ESP application.

In its review of the application, the staff considered the regulatory requirements in 10 CFR 52.17(b)(2)(i), 10 CFR 52.18, and 10 CFR Part 50, Appendix E, Sections III, IV.A, IV.F and IV.G. Under 10 CFR 52.17(b)(2)(i), an applicant for an ESP may propose major features of the emergency plans for NRC review and approval, in consultation with FEMA, in the absence of complete and integrated emergency plans. In accordance with 10 CFR 52.18, after consultation with FEMA, the NRC must determine whether the major features of emergency plans submitted under 10 CFR 52.17(b)(2)(i) are acceptable. RS-002 and Supplement 2 provide guidance concerning the review and evaluation of emergency planning information provided in an ESP application. Supplement 2 also provides specific evaluation criteria for major features of emergency plans, including those which apply to major feature P, "Responsibility for the Planning Effort: Development, Periodic Review, and Distribution of Emergency Plans."

Major feature P calls for the applicant to describe the development, review, distribution, and update of emergency plans. The application should also designate an emergency planning coordinator for each organization and identify (by title) individuals with emergency planning responsibility. In addition, the application should describe training for those responsible for the planning effort.

13.3.3.15.3 Technical Evaluation

The application describes, by title, the individuals with overall authority and responsibility for radiological emergency response planning. This description includes the development and update of plans and coordination with other response organizations. SSAR Section 13.3.2.2.2.p identifies the director of nuclear protection services and emergency preparedness as the person responsible for emergency planning for the ESP site. The COVREMP identifies the State coordinator of emergency management, and the county RERPs identify either the county director or emergency services coordinator.

For the applicant, training includes site-specific training and external training from organizations such as EMI, the National Emergency Training Center, the Harvard School of Public Health, and NEI. State emergency planners will receive continuous training on the essential elements of radiological response planning and will be sent to the radiological emergency planning

course at EMI. County planners will receive training from the county, in conjunction with the State.

SSAR Section 13.3.2.2.2.p.5 states that the COL applicant will forward approved plan changes to appropriate organizations and individuals and mark and date updates. COVRERP Section XI states that the State updates its plan annually and periodically reviews the letters of agreement (at least every 2 years). The State and local governments can make recommended updates at any time, and will forward them to all organizations and individuals responsible for implementation. Local governments will review the county RERPs annually, and distribute the updated plans and procedures. The COVRERP and county RERPs, which contain a table of contents, will be dated and marked to show where changes have been made.

In Section 13.3.2.2.2.p.4 of the SSAR, the applicant states that there is no requirement to update the emergency plan or its supporting-organization agreements until after an operating license is issued. The regulations in 10 CFR 52.79(d) currently do not require such updating in a COL application. Therefore, a COL application could propose an emergency plan incorporating EP information approved in an ESP without updating. Nonetheless, to the extent that EP information approved in an ESP is no longer current when a COL application incorporating that information by reference is submitted pursuant to 10 CFR 52.79, that information will need to be updated. The staff will not approve emergency plans proposed in a COL application under 10 CFR 52.79(d) if such plans are based upon obsolete or superceded information. The nature and depth of the staff review of the updated information may vary depending on the nature of the update. In all cases, any changed information would be subject to challenge in the COL proceeding. While updating of previously approved EP information is not currently required, the Commission has proposed to add a provision in 10 CFR Part 52 to require such updating, as discussed in the Notice of Proposed Rulemaking for 10 CFR Part 52 (68 FR 40026). The staff will determine compliance with the requirements in this area during a COL application review based on the regulations in effect at that time. In addition, the applicant stated in SSAR Section 13.3.2.2.2.p.4 that “[a]ny changes that represent a decrease in effectiveness of the previously approved information with respect to the standards of 10 CFR 50.47(b) or requirements of 10 CFR 50, Appendix E, would be specifically identified and addressed.” The staff did not consider this information essential to its review, and therefore did not evaluate it.

The applicant responded to RAI 13.3-13 and RAIs 13.3-14(m)-(o), which called for information concerning cross-references to NUREG-0654, Supplement 2, and a description of the training program and review/update of the RERP and agreements for Orange County. These responses, however, were received too late to be considered in this DSER. Consideration of this information is **Open Item 13.3-10**. The NRC and FEMA will review the responses to these RAIs and will describe the results of that review in the FSER.

13.3.3.15.4 Conclusions

As discussed above, the staff needs to review the applicant’s response to RAI 13.3-13 and RAIs 13.3-14(m)-(o) in order to determine whether proposed major feature P is acceptable. The applicant responded to these RAIs too late for consideration of the response in this DSER. The NRC and FEMA will determine acceptability of this major feature and will document that determination in the FSER, based on information the applicant has provided to date, including its responses to these RAIs.

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