Alert and Notification System Evaluation Report

SURRY POWER STATION

Dominion Energy®

Revision 3.0

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REVISION HISTORY

The revision history is a summary of the modifications that have been made to this report. To maintain a historical record of edits, previous entries are not to be removed.

Revision No.	Summary of Revision	Department / Organization Name	Date of Issue
0	SAFER Services Corp. prepared initial copy of ANS Report, Rev. 0. Report was released to Dominion Energy from contractor on 11/09/2017.	SAFER Services Corp.	11/09/2017
1.0	Revision 1.0 incorporated Dominion Energy comments from Corporate Emergency Preparedness (EP) and Surry Power Station (SPS) EP Departments.	Dominion Energy Corporate EP & SPS EP	12/13/2017
2.0	Revision 2.0 incorporated Virginia Department of Emergency Management (VDEM) comments to Section 2.0: Introduction only.	Dominion Energy Corporate EP	03/09/2018
3.0	Revision 3.0 of the SPS ANS Evaluation Report included the following changes: • The FEMA Integrated Public Alert and Warning System (IPAWS) replaced the SPS Early Warning Siren System as the primary alerting method; • The Virginia Public Notification System replaced route alerting as the SPS backup alerting method; • The FEMA ANS Evaluation Report Template was used to meet FEMA content and formatting expectations; and • Incorporated documentation, such as carrier coverage maps, VDEM and FEMA IPAWS Memorandum of Agreement, and other references to support the evaluation of the ANS Evaluation Report.	Dominion Energy Corporate EP	XX/XX/XXXX

EXECUTIVE SUMMARY

Dominion Energy has revised this ANS Evaluation Report for Surry Power Station (SPS). This evaluation report supersedes Revision 2 of the SPS ANS Evaluation Report, dated March 12, 2018 (Document Number: 300-170420-SPS-001).

This report provides details of how SPS meets the administrative and physical means to ensure initial alert and notification of the public within the SPS plume exposure pathway emergency planning zone (EPZ) as required by (1) Planning Standard E (Notification Methods and Procedures) and Planning Standard F (Emergency Communications) in 44 CFR 350.5 and 10 CFR 50.47(b); (2) NUREG-0654/FEMA-REP-1, Rev. 2, *Criteria for Preparation and Evaluation of Radiological Emergency Response Plans and Preparedness in Support of Nuclear Power Plants;* and (3) the 2019 FEMA Radiological Emergency Preparedness Manual (RPM).

This report meets each of the four acceptable design objectives for coverage as defined in *Part V: REP Program Alert and Notification System Guidance* of the 2019 RPM:

1. The capability to provide both an alert signal and an informational or instructional message to the population throughout the plume exposure pathway EPZ within 15 minutes. The basis for any special requirements/exceptions (e.g., for large water areas with transient boats or remote hiking trails) must be documented.

2. The initial notification system will ensure coverage of essentially 100% of the population within 5 miles of the site.

3. Notification methods will be established to ensure coverage within 45 minutes of essentially 100% of the population within the entire plume exposure pathway EPZ who may not have received the initial notification. The basis for any special requirement exceptions (e.g., large water areas with transient boats or remote hiking trails) must be documented. Assurance of continued notification capability may be verified on a statistical basis. The plan must include a provision for corrective measures to provide reasonable assurance that coverage in accordance with the design objectives is maintained. The system should be operable prior to initial operation greater than 5 percent of rated thermal power of the first reactor at a site.

4. The capability of the ANS to cover essentially 100% of the population within the entire plume exposure pathway EPZ, regardless of failures. There must be administrative and physical means to correct any ANS failure for any segment of the population that did not receive the alert and/or notification. The means and methods to correct or compensate for failures are identified and developed in conjunction with state, local, territorial, or tribal government officials and the utility operators. The corrective means/measures will be conducted within a reasonable amount of time, with a recommended goal of 45 minutes. All failure modes, including total failure, are accounted for and means/ measures to overcome them must be documented. Historically most licensees and governmental jurisdictions use the sequential failure model also known as a “primary and backup” ANS model; use of this model is acceptable, though REP jurisdictions can use other models such as simultaneous or concurrent activation models, which differ from a redundant (exact duplicate) model.

The U.S. Federal Emergency Management Agency (FEMA) has issued policy guidance indicating that the Integrated Public Alert and Warning System (IPAWS) may be used by a state, tribal, and local government as a primary or backup means of public alerting and notification. Refer to FEMA memorandum, *IPAWS Implementation Guidance*, dated September 13, 2017.

The IPAWS is a modernization and integration of the nation's alert and warning infrastructure that will save time when time matters: when protecting life and property. Federal, state, local, territorial, and tribal alerting authorities may choose to use IPAWS and may also integrate local systems that use Common Alerting Protocol (CAP) standards with the IPAWS infrastructure. IPAWS gives public safety officials an effective way to alert and warn the public about an emergency using the Wireless Emergency Alert (WEA), Emergency Alert System (EAS), National Oceanic and Atmospheric Administration (NOAA) weather radio, and other public alerting systems from a single interface.

As FEMA strongly encourages the integration of IPAWS with offsite alert and notification plans, IPAWS-WEA is the SPS primary alert method and IPAWS-EAS is the primary notification method for alerting and notifying local residents and transient population in the SPS plume exposure pathway EPZ on emergency information, including the emergency alert and notification process and what protective actions to take during an emergency. For redundancy, VDEM has two IPAWS-compliant Common Alerting Protocol (CAP) Alert Origination Tools that are hosted on separate vendor platforms, one that is designated as the primary and the other as an alternate, readily available to activate IPAWS-WEA and IPAWS-EAS. In instances where IPAWS is inoperable, the Virginia Department of Emergency Management (VDEM) Public Notification System, an emergency telephone notification system that has the capability to perform a mass alert and notification to citizens, is the back-up alerting and notification method. IPAWS and the VDEM Public Notification System, respectively, replace the primary and backup alerting methods previously described in Revision 2.0 of the SPS ANS Evaluation Report. These changes were made to better serve the health and safety of the SPS community in enhancing early notification and providing clear, prompt communication to the public.

VDEM has operational responsibility of the primary and backup ANS sub-systems, as well as responsibility for management, administration, applicable testing, and maintenance and repair of the systems. VDEM has developed procedures and policies related to ANS operations.

This report is provided by SPS to FEMA and describes the primary and backup ANS sub-systems used by VDEM. The evaluation report contains information for FEMA to review and determine its acceptability.

SECTION 1: ALERT AND NOTIFICATION SYSTEM PLAN

Licensing Obligation

The SPS License contains no special license conditions relating to the type of Alert and Notification System.

To satisfy FEMA REP Planning Standard E – Notification Methods and Procedures and applicable, associated evaluation criteria for this report, the means for providing early notification and clear instruction to the residents in the SPS plume exposure pathway EPZ have been established.

Description of Systems

The primary and backup ANS sub-systems described below are used to promptly alert and notify the public in the SPS plume exposure pathway EPZ of an emergency event at SPS. The backup system is employed if the primary system becomes unavailable for any reason.

Primary Alert and Notification System

- **Primary alerting system:** IPAWS-WEA is used as the primary alerting method to alert residents and the transient population within the SPS plume exposure pathway EPZ. IPAWS-WEA broadcasts alerts and warnings from cell towers to any WEA-enabled mobile device within a geographically targeted area, alerting and notifying individuals of an emergency.

  IPAWS-WEA messages are short emergency messages. These messages are sent from authorized Federal, state, local, tribal, and territorial public alerting authorities and go through the Integrated Public Alert and Warning System Open Platform for Emergency Networks (IPAWS-OPEN) to receive and authenticate messages transmitted by alerting authorities. IPAWS-OPEN then routes the IPAWS-WEA message to participating wireless carriers, which then push the alerts to mobile devices in the specified geographical target area.

  IPAWS-WEA messages are periodically transmitted to mobile devices for an extended duration, as determined by the state, to maximize the possibility of being received by members of the public. Messages can be received indoors or outdoors and heard and felt through a special tone and vibration, both repeated twice. These messages direct individuals to turn on broadcast stations or a communication media to receive additional information and instruction in the event of an emergency at SPS. Reference Attachment 1: FEMA IPAWS Architecture.

  IPAWS is designed to meet the requirements of NUREG 0654/FEMA-REP-1, Rev. 2.

  IPAWS-WEA messages are prepared by VDEM. The primary method for transmitting IPAWS-WEA messages is through VDEM's Primary IPAWS-compliant CAP Alert Origination Tool. Reference Attachment 6: Relevant Virginia Radiological Emergency Response Plan Technical Support Document Appendices and Procedures.

- **Primary notification system:** IPAWS-EAS is used as the primary notification method for providing informational and/or instructional message(s) to the SPS plume exposure pathway EPZ population. EAS is a national public warning system comprised of television and radio broadcasters; cable television systems; wireless cable systems; direct broadcast satellite service providers; and wireless video service providers that allow notification to the public during an emergency.

  IPAWS-EAS messages are sent from authorized Federal, state, local, tribal, and territorial public alerting authorities and go through the Integrated Public Alert and Warning System Open Platform for Emergency Networks (IPAWS-OPEN) to receive and authenticate messages transmitted by authorized alerting authorities. IPAWS-OPEN then routes the EAS message to designated EAS broadcast stations, which then push the EAS message to all radio and television (AM FM digital, analog, cable, and satellite). Reference Attachment 1: FEMA IPAWS Architecture. For list of EAS broadcast stations and frequencies, refer to the current Commonwealth of Virginia Emergency Alert System Plan. For the EAS coverage map of SPS, refer to Attachment 7: Surry Power Station EAS Coverage Map.

  IPAWS-EAS messages are prepared by VDEM. The primary method for transmitting IPAWS-EAS messages is through VDEM's Primary IPAWS-compliant CAP Alert Origination Tool.

  Should VDEM's Primary IPAWS-compliant CAP Alert Origination Tool become unavailable or inoperable, an Alternate IPAWS-compliant CAP Alert Origination Tool will be used to reach IPAWS-OPEN to transmit the IPAWS-WEA and IPAWS-EAS messages. This Alternate IPAWS-compliant CAP Alert Origination Tool is on a separate software platform from the Primary IPAWS-compliant CAP Alert Origination Tool. The inclusion of the Alternate IPAWS-compliant CAP Alert Origination Tool creates zero single points of system failure. Reference Attachment 6: Relevant Virginia Radiological Emergency Response Plan Technical Support Document Appendices and Procedures.

Backup Alert and Notification System

- **Backup alerting and notification system:** The inclusion of the Alternate IPAWS-compliant CAP Alert Origination Tool eliminates any single points of failure; however, in the chance IPAWS-WEA and/or IPAWS-EAS become unavailable or inoperable, the VDEM Public Notification System will be the backup alerting and/or notification method. This system is a public alert system that uses a database of telephone numbers and associated addresses to deliver geo-targeted emergency alerts to a specific geographic area via landline telephones and other communication methods, such as mobile and VoIP telephone records. The VDEM Public Notification System alerts local residents and businesses by sending a text-to-speech voice message to telephones. The VDEM Public Notification System is hosted on the same vendor platform used for the Primary IPAWS-compliant CAP Alert Origination Tool.

  Reference Attachment 2: VDEM and SPS Primary and Backup Alert and Notification System Infrastructure. This system infrastructure is further described and detailed in Section 2 of this report.

Authority

The State Coordinator of Emergency Management (State Coordinator) is authorized to activate the Commonwealth of Virginia Emergency Operations Plan (COVEOP) and the Virginia Radiological Emergency Response Plan (Technical Support Document) in order to coordinate state government emergency operations on behalf of the Governor of Virginia. In this capacity, the State Coordinator is authorized to activate the Virginia Emergency Support Team (VEST), the statewide emergency management coordination and support mechanism. The primary operations of the VEST are conducted at the Virginia Emergency Operations Center (VEOC), as allowed by prevailing public health and safety standards. The State Coordinator of Emergency Management has responsibility for, and authority to use IPAWS-WEA, IPAWS-EAS, and the VDEM Public Notification System. Reference Attachment 6: Relevant Virginia Radiological Emergency Response Plan (Technical Support Document) Appendices and Procedures.

VDEM is on the FEMA list of “Organizations with Alerting Authority Completed,” and thus has authority to operate IPAWS-WEA, IPAWS-EAS, and the VDEM Public Notification System. A Memorandum of Agreement (MOA) has been signed by VDEM as the Collaborative Operating Group (COG) and FEMA. Reference IPAWS COG Identification Number 200058 for the Virginia Department of Emergency Management. Reference Attachment 5: VDEM and FEMA IPAWS Memorandum of Agreement.

Administration

The Governor of Virginia, or his/her designate, administers and provides ultimate oversight for the primary and backup ANS sub-systems.

VDEM is responsible for the management of the primary and backup ANS sub-systems. As described in the *Virginia Emergency Operations Plan, Radiological Emergency Response Technical Support Document*, VDEM has the authority and ability to activate the primary ANS and backup ANS sub-systems and can do so for itself, or as requested by any or all of its local counties and/or public safety agencies. IPAWS-WEA, IPAWS-EAS, and the VDEM Public Notification System are activated from the VDEM Situational Awareness Unit (SAU). Reference Attachment 6: Relevant Virginia Radiological Emergency Response Plan (Technical Support Document) Appendices and Procedures.

Requirements/Function

Operations

- **Activation Procedures:** The ANS is to be activated during any emergency where the immediate dissemination of emergency information and instruction to the public is critical in protecting the public health and safety.

  The decision to activate the primary and/or backup ANS is made by VDEM. Activation of the ANS is performed by qualified SAU personnel, per VDEM’s established IPAWS-WEA and IPAWS-EAS activation procedures. The primary method the SAU uses to transmit IPAWS-WEA and IPAWS-EAS messages is through VDEM’s Primary IPAWS-compliant CAP Alert Origination Tool, a web-based system to transmit EAS/WEA messages. This system is used and monitored daily by SAU personnel for other hazards.

IPAWS-WEA and IPAWS-EAS messages are pre-scripted and pre-approved for prompt ANS activation (reference Attachment 6: Relevant Virginia Radiological Emergency Response Plan [Technical Support Document] Appendices and Procedures). Approval to disseminate an IPAWS-WEA and IPAWS-EAS message is needed from the designated positions identified in the Virginia Radiological Emergency Response Plan (reference Attachment 6: Relevant Virginia Radiological Emergency Response Plan [Technical Support Document] Appendices and Procedures). IPAWS-WEA messages will be transmitted to mobile devices in the designated area selected and local broadcasters will immediately interrupt their regular scheduled programming to broadcast the IPAWS-EAS message.

In the event the Primary IPAWS-compliant CAP Alert Origination Tool becomes inoperable, the Alternate IPAWS-compliant CAP Alert Origination Tool can be activated, which is outlined in VDEM's established IPAWS-WEA and IPAWS-EAS activation procedures (reference Attachment 6: Relevant Virginia Radiological Emergency Response Plan [Technical Support Document] Appendices and Procedures).

- **Process(es):** Once the SAU receives a protective action recommendation (PAR) from the nuclear utility, VDEM, in coordination with the Virginia Department of Health - Office of Radiation Health (VDH-ORH), will review, evaluate, and develop required actions. Based on the information received and other considerations, a protective action decision (PAD) is made for the SPS plume exposure pathway EPZ residential and transient populations. To communicate with the public, SAU personnel will implement VDEM's established IPAWS-WEA and IPAWS-EAS activation procedure which includes a step-by-step process for activating the primary and the backup ANS sub-systems. The process, at a high-level, includes the following:
    - Approval to disseminate an IPAWS-WEA and IPAWS-EAS message is obtained from the designated positions identified in the Virginia Radiological Emergency Response Plan. VDEM Communications Division will verify the IPAWS-EAS message is accurate and correctly communicates the PAD before transmitting to EAS broadcasters.
    - Using the pre-approved, pre-scripted IPAWS-WEA and IPAWS-EAS messages, the Primary IPAWS-compliant CAP Alert Origination Tool is used to activate both messages, simultaneously (reference Attachment 6: Relevant Virginia Radiological Emergency Response Plan [Technical Support Document] Appendices and Procedures). Both VDEM's Primary and Alternate IPAWS-compliant CAP Alert Origination Tools provide a verification signal that the IPAWS-WEA message successfully transmitted to IPAWS-OPEN. The SAU monitors radio and local television stations to verify IPAWS-EAS activation is successful.
    - Upon activation of the primary ANS, the VDEM Public Notification System will be activated concurrently.
    - In the event the Primary IPAWS-compliant CAP Alert Origination Tool is inoperable, the Alternate IPAWS-compliant CAP Alert Origination Tool will be used to transmit the IPAWS-WEA and IPAWS-EAS messages.

Security and Privacy

IPAWS–WEA, IPAWS-EAS, the VDEM Public Notification System messages are sent from the SAU, by personnel qualified to operate these systems. The SAU is staffed 24 hours per day, 7 days per week. Access into the SAU is physically and administratively restricted and limited to VEST authorized personnel. If a visitation is justified, visitors are continuously supervised while in the SAU.

Logical/cyber security is used to secure the Primary and Alternate IPAWS-compliant CAP Alert Origination Tools. The VDEM Public Notification System database information is stored on the Primary IPAWS-compliant CAP Alert Origination Tool's secure server. The database is stored on secure, non-publicly accessible servers within redundant data centers. User access to both systems is secured by username/password for personnel who are qualified and responsible for sending notifications. User administration access is strictly limited to those VDEM personnel who are qualified and responsible for administrative functions, which further safeguards information.

The security framework for the Primary and Alternate IPAWS-compliant CAP Alert Origination Tools are based on current CAP security requirements/technical specifications and FEMA IPAWS Program guidance, as set by FEMA IPAWS Program Management Office. IPAWS-WEA and IPAWS-EAS messages include digital signatures that guarantee credible end-to-end authentication. Messages cannot be tampered with after they are disseminated. Additionally, both Primary and Alternate IPAWS-compliant CAP Alert Origination Tools adhere to existing Virginia Information Technology Agency (VITA) policies.

Training and Quality Assurance

VDEM determines and maintains sufficient numbers of qualified individuals to operate the ANS sub- systems. Authorized SAU staff complete IPAWS training (IS-247 Integrated Public Alert and Warning System) through the FEMA Emergency Management Institute (EMI) and other recommended or required software provider/vendor-developed system trainings identified by VDEM as deemed necessary and applicable. SAU staff also gain practical experience during the initial training and real-world emergencies.

A SAU Shift Lead identifies, tracks, and verifies trainings are completed for each SAU staff member. The annual SPS ANS audit verifies appropriate trainings for each system are completed and appropriately tracked. See Attachment 3 for a draft audit template.

Public Outreach and Education

To educate the public on the emergency alert and notification process and actions to take in the event of a radiological emergency, SPS distributes public information materials to all residents, businesses, schools, and transient populations within the SPS plume exposure pathway EPZ on an annual basis. These informational materials include pertinent information for the public to know in an emergency, including what actions to take in the event the public receives an IPAWS-WEA message and identification of local radio and television stations for the public to access additional information related to the emergency.

In addition to annually distributed public information materials, IPAWS-WEA (the primary alerting method) can alert the public and provide public information and instruction in real time. This

capability avoids complications of recalling previously distributed public information and better reaches the transient population, furthering achieving early notification and clear, prompt instruction to all public members. Rather than being limited to condensed versions of emergency information posted in recreational/public areas and at local businesses, IPAWS-WEA provides transients the same public information and instruction received by local residents on how to appropriately respond to alerts and take action in an emergency, including what to do when you hear an alert and where to access additional emergency information.

Messaging

SPS and VDEM work together and coordinate messaging contents and distribution arrangements of the annual dissemination of public information within the SPS plume exposure pathway EPZ. Messaging includes various emergency preparedness topics, including considerations and accommodations for various population groups, such as for individuals with access and functional needs, transient populations, and ingestion exposure pathway EPZ populations (reference Attachment 6: Relevant Virginia Radiological Emergency Response Plan [Technical Support Document] Appendices and Procedures).

Limited English Proficiency (LEP)

According to the November 2012 *Surry Power Station – Development of Evacuation Time Estimates*, based on U.S 2010 Census data, the total residential population within the SPS plume exposure pathway EPZ is 152,677. According to LEP.gov (2011 – 2015 American Community Survey), the LEP population within each of the six localities in the SPS plume exposure pathway EPZ is below the 10,000+ non-English speaking individuals or 5% of population threshold for providing translated public information in a foreign language. There is a total of 6,073 Spanish-speaking individuals within the six localities in the SPS plume exposure pathway EPZ, which is approximately 4% of the SPS plume exposure pathway EPZ. Therefore, since the LEP population is below the regulatory threshold, public information and educational material is published in English only.

As new data becomes available, a re-assessment of providing additional translations of public information materials will be conducted.

Access and Functional Needs

The annual distribution of public information includes messaging for individuals with access and functional needs, including how to self-identify as an individual needing evacuation assistance during an emergency. Information including the individual's name, physical address, and telephone number is voluntarily collected and subsequently maintained in a directory, managed by local county emergency management organizations. Additionally, for these self-identified individuals, a bright, florescent "Special Assistance Needed" and "We Have Been Notified" card is provided to put in a window or visible location to alert emergency responders about his/her situation during an emergency and needing special assistance. Appropriate arrangements are made for these identified individuals by local governments to evacuate, if evacuation is the best determined protective action. Reference Attachment 6: Relevant Virginia Radiological Emergency Response Plan (Technical Support Document) Appendices and Procedures.

Based on the 2003 National Assessment of Adult Literacy data, (https://nces.ed.gov/naal/estimates/StateEstimates.aspx) below are the percentages of literate residents in the six Virginia counties that makeup the SPS plume exposure pathway EPZ:

- City of Newport News- 88%
- City of Williamsburg- 92%
- Surry County- 83%
- Isle of Wight County- 89%
- James City County- 93%
- York County- 94%

Transient Populations

Transient populations within the SPS plume exposure pathway EPZ will receive IPAWS-WEA messages alerting them of an emergency and where to access additional emergency information on radio and television stations. Additionally, transient populations can get emergency information from signs/bulletins posted in recreational areas/parks and at local businesses. The information contained in these signs/bulletins are condensed versions from the public information disseminated to residents in the SPS plume exposure pathway EPZ.

Ingestion Exposure Pathway EPZ Information

VDEM coordinates ingestion messages for the 37 counties within the SPS ingestion exposure pathway EPZ [1]. VDEM is responsible for providing situational awareness and for keeping all response organizations informed during intermediate and late phases of a radiological emergency through communications means deemed as necessary and/or applicable by VDEM, which may or may not include the use of IPAWS-WEA. Ingestion information provided in the annual dissemination of public information includes messaging on disaster planning, potential preventive protective actions, and monitoring and decontamination of livestock and crops.

Maintenance

VDEM contracts with two separate IPAWS-compliant CAP Alert Origination Software Providers, one of which hosts the VDEM Public Notification System, who individually conduct routine preventative maintenance on their respected platforms. VITA performs routine preventive maintenance on the Commonwealth's local area network (LAN) and equipment, identifying and resolving any faults as they occur.

Maintenance logs and procedures are maintained by their respected organization/vendor and utilized as deemed necessary and applicable when conducting maintenance work.

IPAWS and phone carriers are overseen and monitored by FEMA and the Federal Communications Commission (FCC).

[1] Sometimes referred to as the 50-mile Ingestion Protective Action (IPZ), 50-mile ingestion pathway EPZ, or ingestion pathway in the *Virginia Emergency Operations Plan, Radiological Emergency Response Basic Plan (Technical Support Document).*

SECTION 2: DESIGN REPORT

Licensing Obligations (if applicable)

The SPS Emergency Plan was developed in accordance with 10 CFR Part 50, paragraph 50.47; 10 CFR Part 50, Appendix E; Regulatory Guide 1.101, and follows the guidelines of NUREG-0696, *Functional Criteria for Emergency Response Facilities* and NUREG-0654/FEMA-REP-1, Rev. 2. The SPS Emergency Plan was developed to be compatible with existing state and local emergency plans for effective coordination and response in the event of an emergency at SPS.

The SPS Emergency Plan contains no license obligations to use any particular ANS. Regulatory requirements do not specify the use of a particular alert and notification system(s) for public information dissemination in an emergency. The SPS Emergency Plan describes the equipment and processes used for informing the public during an emergency.

Requirements

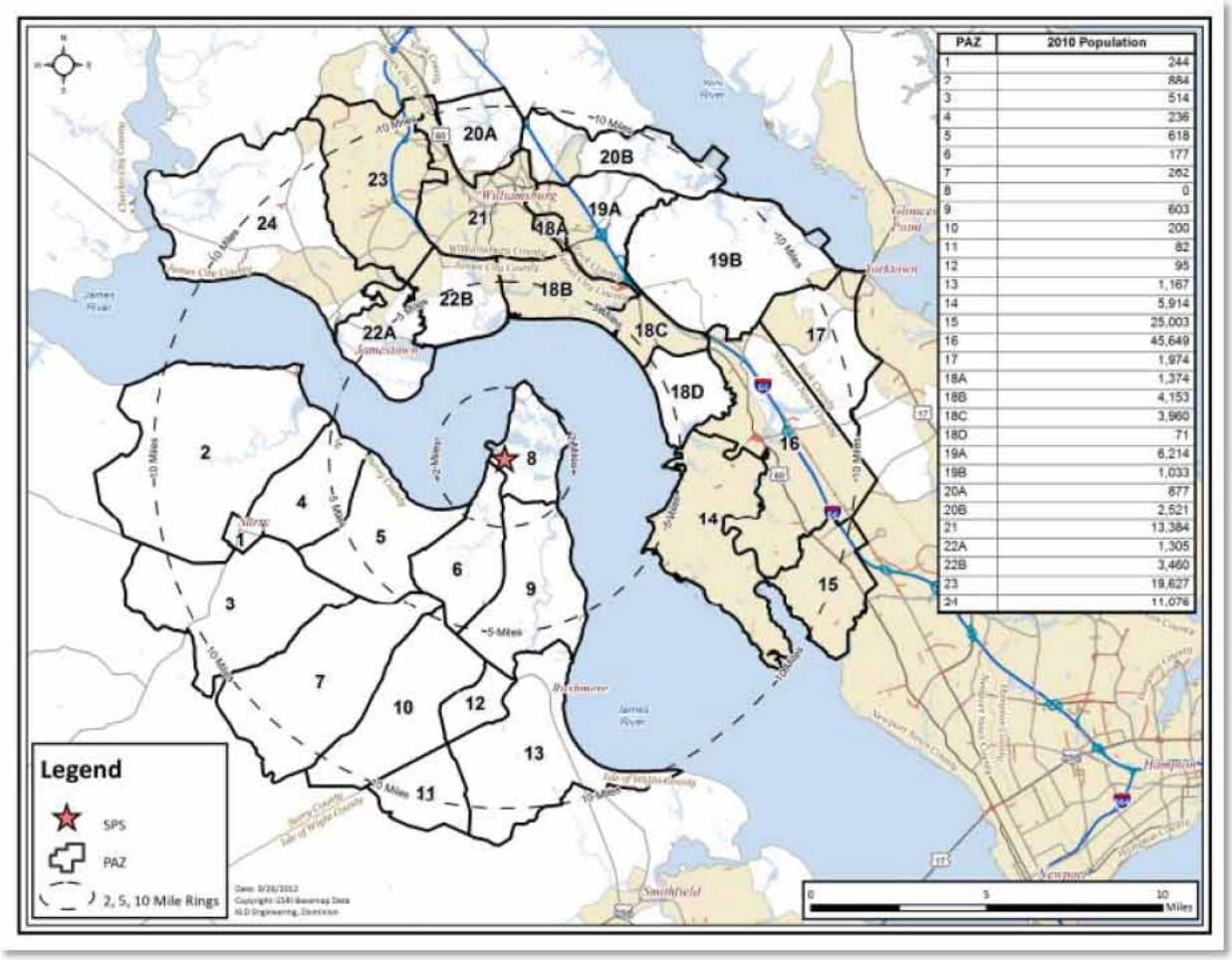
System Coverage

Population: SPS is located in northeastern Surry County, VA (on the south bank of the James River). The site is approximately 44 miles southeast of Richmond and approximately seven miles south of the City of Williamsburg. SPS operates two reactors, with the first unit going online in December 1972 and the second unit in May 1973.

The SPS plume exposure pathway EPZ is defined as an area delineated by an approximate ten-mile radius circle around SPS Unit 1. Portions of the following six Virginia localities make up the SPS plume exposure pathway EPZ: the counties of Surry, Isle of Wight, James City, and York; and the cities of Newport News and Williamsburg.

The entire SPS plume exposure pathway EPZ is covered by IPAWS-WEA, EAS, and the VDEM Public Notification System. According to the U.S 2010 Census data, the total permanent residential population in the plume exposure pathway EPZ is 152,677. As described further below in the “Population/Demographics” section, there are numerous tourist attractions that may be present at certain times, including Busch Gardens Williamsburg and Jamestown Settlement. Additionally, there are four major military installments within the SPS plume exposure pathway EPZ, including Fort Eustis, Camp Perry, Cheatham Annex, and the Yorktown Naval Weapons Station.

Figure 1 below shows the total permanent resident population in the SPS plume exposure pathway EPZ, by protective action zone (PAZ), according to the current Evacuation Time Estimate (ETE) study that was performed by KLD Engineering, P.C. in December 2012. Population estimates are based upon U.S Census 2010 data.



PAZ	2010 Population
1	244
2	884
3	514
4	236
5	618
6	177
7	262
8	0
9	603
10	200
11	82
12	95
13	1,167
14	5,914
15	25,003
16	45,649
17	1,974
18A	1,374
18B	4,153
18C	3,960
18D	71
19A	6,214
19B	1,033
20A	677
20B	2,521
21	13,384
22A	1,305
22B	3,460
23	19,627
24	11,076

Figure 1: SPS Plume Exposure Pathway EPZ permanent resident population by PAZ.

- **Geographic Area:** SPS sits on a point of land called Gravel Neck that extends into the James River. Immediately to the northern end of Gravel Neck is Hog Island Wildlife Management Area. The general area south and west of SPS is rural, forested terrain that is sparsely populated, with some recreational activities nearby, including Chippokes Plantation State Park. To the north and east are more populated areas with the most populated areas concentrated near the cities of Williamsburg and Newport News. Additionally, the James River is a major navigable waterway used for both commercial and industrial transportation, as well as for recreational use.

  As shown in Figure 1 above, the SPS plume exposure pathway EPZ is partitioned into 30 PAZs along jurisdictional and geographical boundaries.

- **Means:** The SPS plume exposure pathway EPZ is covered by IPAWS-WEA and IPAWS-EAS. The VDEM Public Notification System serves as a backup alerting and/or notification method, should IPAWS fail to perform as expected. The entire SPS plume exposure pathway EPZ is covered by all primary and backup ANS sub-systems.

  Reference Attachment 4 for coverage maps of Tier I cellular carriers Verizon, AT&T, and T-Mobile/Sprint

Population/Demographics

The SPS plume exposure pathway EPZ population comprises of year-round residential and commercial; therefore, the population may include permanent residents, non-resident tourists (transient populations), and commuting employees working in the SPS plume exposure pathway EPZ. These population groups may consist of individuals with access and functional needs or speak a foreign language.

- **Permanent Resident Population:** The permanent resident population are those who live within each PAZ in the SPS plume exposure pathway EPZ. Based on the 2010 U.S Census data, the total permanent population in the SPS plume exposure pathway EPZ is 152,677. Included in the permanent resident population are resident students attending and living on the College of William and Mary campus, while commuting students are classified under the transient population.

- **Transient Population:** Transient populations groups are those who are not permanent residents, nor commuting employees, but enter the SPS plume exposure pathway EPZ for a specific purpose, such as shopping, recreation, entertainment, and school. Transients may spend anywhere less than one day to a month(s) in the SPS plume exposure pathway EPZ.

  The SPS plume exposure pathway EPZ consists of areas and facilities that attract transients, including lodging facilities, marinas, campgrounds, gold courses and country clubs, historical sites, parks and recreational attractions, and festival/events (e.g., Busch Gardens Williamsburg, Colonial Williamsburg, Jamestown Settlement, Anheuser-Busch Brewery, Chippokes Plantation State Park, Hog Island Wildlife Management Area, Newport News Fall Festival of Folklife).

  College of William and Mary commuting students are a unique population group. In the 2012 ETE, commuter students commuting from either inside or outside the SPS plume exposure pathway EPZ are counted in the transient population group.

- **Employee Commuting Population:** The employee commuting population are those who live outside of the SPS plume exposure pathway EPZ and commute to jobs within the plume exposure pathway EPZ. The economy includes the following industries: manufacturing, health care and social assistance, public administration, utilities, information, and transportation and warehousing. This data is credited to: https://datausa.io/profile/geo/surry-county-va.

  According to the 2012 ETE, there is approximately 18,093 employees that commute into the SPS plume exposure pathway EPZ for work.

- **School Population:** The school population is concentrated in the northern and eastern parts of the SPS plume exposure pathway EPZ, which include the following 38 schools/daycares:

  - Clara Byrd Baker Elementary School
  - College of William and Mary
  - Bruton High School
  - Jamestown High School
  - Holy Tabernacle Christian Academy
  - Warwick River Christian School
  - Epes Elementary School
  - Jenkins Elementary School
  - David A Dutrow Elementary School

- Magruder Elementary School
- Matthew Whaley Elementary School
- Berkeley Middle School
- Walsingham Academy (Lower and Upper School)
- Laurel Lane Elementary School
- Matoaka Elementary School
- Williamsburg Head Start
- York County Head Start
- DJ Montague Elementary School
- Providence Classical School
- Waller Mill Elementary School
- Queens Lake Middle School
- BC Charles Elementary School
- George J McIntosh Elementary School
- James River Elementary School
- JM Dozier Middle School
- Lee Hall Elementary School
- Menchville High School
- General Stanford Elementary School
- Gilead Christian Academy
- Yorktown Middle School
- Oliver C Greenwood Elementary School
- Richneck Elementary School
- Mary Passage Middle School
- Denbigh High School
- First Baptist Church Denbigh
- Sanford Elementary School
- RO Nelson Elementary School
- Woodside High School

- **Individuals with Access and Functional Needs Population:** According to the 2012 ETE, less than 5% of the SPS plume exposure pathway EPZ population have self-identified as homebound special needs or transportation-dependent individuals, thus requiring special assistance during an evacuation. These individuals have been and continue to be identified on an annual basis by the local emergency management offices through the annual mailing of emergency public information. These self-identified individuals will be alerted and notified of an emergency in-person.

  Further, this report assumes that those who are hearing impaired would unlikely be participating in recreational activities absent the presence of friends or family with normal hearing; therefore, it is reasonable to conclude that an alerting signal would be relayed to these hearing-impaired individuals. For non-English speaking individuals, according to LEP.gov, the total LEP population in the SPS plume exposure pathway EPZ is at or below 5%. IPAWS-WEA supports both English and Spanish language messaging in a single alert. This report assumes foreign languages is not a barrier in providing an alert signal to non-English speaking individuals.

  Based on the 2003 National Assessment of Adult Literacy data, (https://nces.ed.gov/naal/estimates/StateEstimates.aspx) below are the percentages of literate residents in the 5 Virginia counties that makeup the SPS plume exposure pathway EPZ:
  - City of Newport News- 88%
  - City of Williamsburg- 92%
  - Surry County- 83%
  - Isle of Wight County- 89%
  - James City County- 93%
  - York County- 94%

Interoperability

The primary ANS sub-systems, IPAWS-WEA and IPAWS-EAS, are activated simultaneously using the Primary IPAWS-compliant CAP Alert Origination Tool. This Tool provides the interface for

delivering WEA messages to IPAWS-OPEN for authentication before public dissemination to mobile devices, as well as for interfacing with EAS broadcasting stations to broadcast IPAWS-EAS messages.

If IPAWS-WEA and/or IPAWS-EAS becomes inoperable, the VDEM Public Notification System will be utilized to disseminate an alert and/or notification message to the public. The VDEM Public Notification System is hosted on the same platform as the Primary IPAWS-compliant CAP Alert Origination Tool and will be activated concurrently with the primary ANS.

If the Primary IPAWS-compliant CAP Alert Origination Tool becomes inoperable, the Alternate IPAWS-compliant CAP Alert Origination Tool, a platform independent from the Primary, will be used to transmit IPAWS-WEA and IPAWS-EAS messages.

Figure 2 provides a diagram of the IPAWS architecture, illustrating how standards-based alert message protocols, authenticated alert message senders (Alerting Authorities, such as VDEM), and shared access and distribution networks work together to deliver alerts and notifications to the public interface devices.

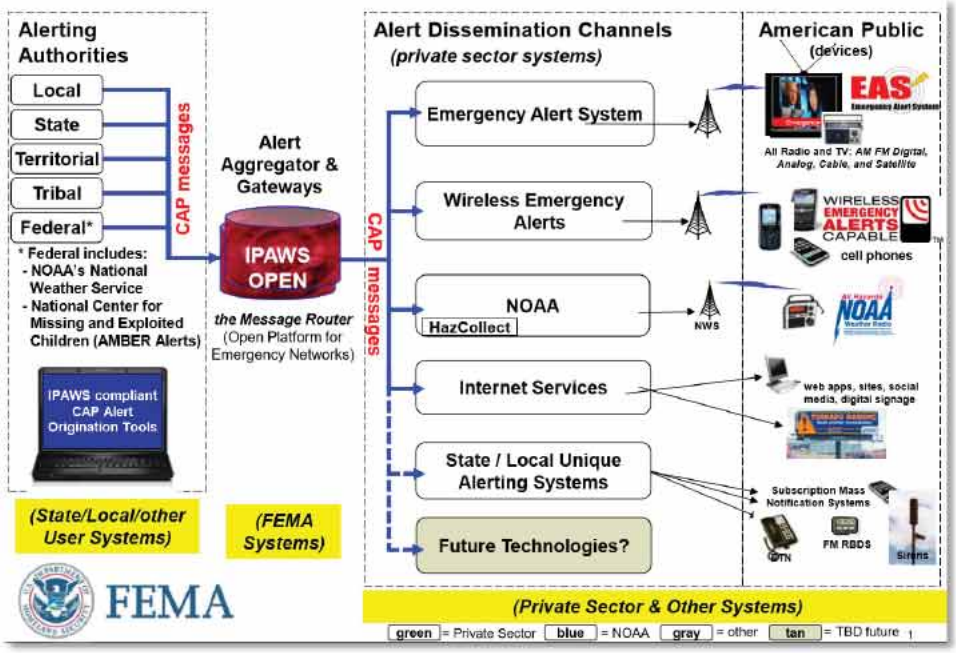


Figure 2: IPAWS Architecture

Figure 3 below provides a diagram of the interoperability of the primary and backup ANS infrastructure and how it instills redundancy and reliability for prompt public alert and notification at any time.

This diagram illustrates how system components interface with other systems, including how two separate IPAWS-compliant CAP Alert Origination Tools (housed on different vendor-hosted platforms) are capable of transmitting IPAWS-WEA and IPAWS-EAS messages through IPAWS-OPEN and then to mobile devices and TV/radio. Two internet service providers are available to ensure internet access is available to activate either Tool (if internet service provider #1 is unavailable, internet service provider #2 is readily available). This creates an infrastructure in which zero single points of failure exist.

If IPAWS-OPEN is unavailable, the VDEM Public Notification System, hosted on the same vendor platform as the Primary IPAWS-compliant CAP Alert Origination Tool, is available to disseminate alert and notification messages by sending a text-to-speech message to telephones within a defined geographical area. The VDEM Public Notification System database is updated on a monthly basis.

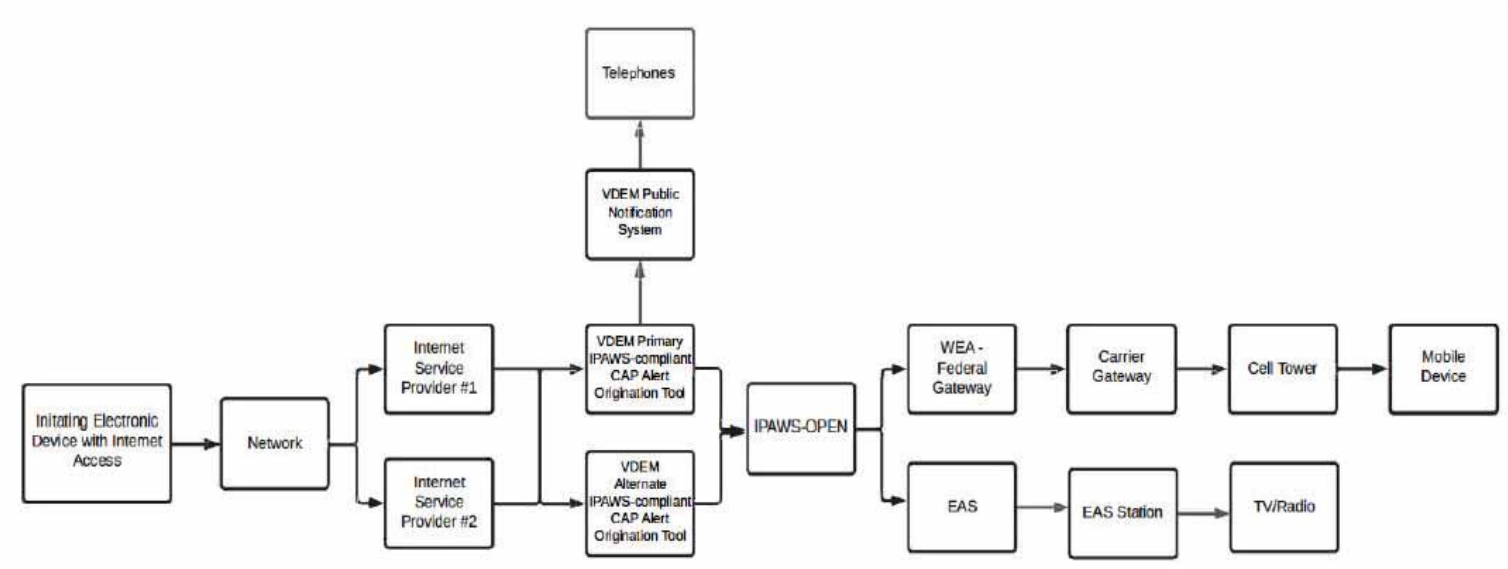


Figure 3: VDEM and SPS ANS Primary and Backup ANS Infrastructure

Operations

The Primary and Alternate IPAWS-compliant CAP Alert Origination Tools are used for disseminating IPAWS-WEA and IPAWS-EAS messages. Both tools are web-based and can be activated by authorized users using multiple remote modes including laptops or mobile phones. Both IPAWS-compliant CAP Alert Origination Tools are highly reliable, scalable, and secure platform for critical event management.

Management/Administration

VDEM has operational responsibility of the primary and backup ANS sub-systems, as well as responsibility for management, administration, maintenance, applicable testing, and repair of the systems. System documentation is maintained by VDEM.

Security and Privacy

- **Physical Security:** IPAWS–WEA, IPAWS-EAS, and the VDEM Public Notification System messages are sent from the SAU, which is staffed 24 hours per day, 7 days per week. Access into the SAU is physically and administratively restricted and limited to authorized VEST personnel. If a visitation is justified, visitors must sign-in to a visitor log and obtain a security badge. Visitors are continuously supervised while within the SAU.

- **Logical/Cyber Security:** Logical/cyber security is used to secure the Primary and Alternate IPAWS-compliant CAP Alert Origination Tools. The VDEM Public Notification System database information is stored on the Primary IPAWS-compliant CAP Alert Origination Tool's secure server. The database is stored on secure, non-publicly

accessible servers within redundant data centers. User access to both systems is secured by username/password for personnel who are qualified and responsible for sending notifications. User administration access is strictly limited to those VDEM personnel who are qualified and responsible for administrative functions, which further safeguards information.

The security framework for the Primary and Alternate IPAWS-compliant CAP Alert Origination Tools are based on current CAP security requirements/technical specifications and FEMA IPAWS Program guidance, as set by FEMA IPAWS Program Management Office. IPAWS-WEA and IPAWS-EAS messages include digital signatures that guarantee credible end-to-end authentication. Messages cannot be tampered with after they are disseminated. Additionally, both Primary and Alternate IPAWS-compliant CAP Alert Origination Tools adhere to existing VITA policies.

Maintenance/Repair

- **Preventative Maintenance:** VDEM contracts with two IPAWS-compliant CAP Alert Origination Software Providers, one of which hosts the VDEM Public Notification System, to perform routine preventative maintenance. For both the Primary and Alternate IPAWS-compliant CAP Alert Origination Tools, a notice is emailed in advance to VDEM SAU's generic email inbox, notifying the agency of the day and timeframe of the preventative maintenance work.

  Additionally, VITA performs routine preventive maintenance on the Commonwealth's LAN and equipment.

  IPAWS and phone carriers are overseen and monitored by FEMA and the FCC.

- **Corrective Maintenance:** VDEM will contact the applicable IPAWS-compliant CAP Alert Origination Software Provider to troubleshoot any issues with the Primary and/or Alternate IPAWS-compliant CAP Alert Origination Tool. A trouble ticket will be logged into the SAU Equipment Outage Log in WebEOC.

  If issues arise with the Commonwealth's LAN and/or equipment, VITA will communicate and work with VDEM IT to resolve issues.

Availability/Reliability

IPAWS is reported by FEMA to have a 94 percent or greater reliability/availability.

The Primary IPAWS-compliant CAP Alert Origination Tool guarantees 99.99 percent transactional uptime across 15+ data centers, with 24x7 system testing and monitoring, and organized with geo-redundancy and managed by two Network Operations Centers (NOCs) and 24/7 support teams.

The Alternate IPAWS-compliant CAP Alert Origination Tool is a hybrid system that can operate on internet servers and satellite signal. Additionally, the Alternate IPAWS-complaint CAP Alert Origination Tool has two satellites to carry data, fully redundant uplink facilities physically separated, 24/7 365 monitoring of all network infrastructure, and multiple data centers and service clusters.

VDEM SAU maintains two internet service providers (terrestrial and cellular hotspot) that provide an uptime of essential 100% due to a redundant internet system infrastructure. If for some reason terrestrial internet availability is unavailable, VDEM has cellular hotspot capability to assure internet connectivity is maintained.

Testing

IPAWS-WEA and IPAWS-EAS system performance, availability, and reliability is tested and verified on a periodic basis by frequencies and methods established by Federal Regulations and Code. In addition, IPAWS-WEA and IPAWS-EAS are used on a routine basis. For example, during the calendar years January 1, 2018 through January 1, 2021, VDEM SAU initiated 6 IPAWS-WEA and IPAWS-EAS messages. The breadth and scope of these real-world all-hazard notifications confirm ANS adequacy, functionality, interoperability, and enhance public confidence. Therefore, no additional periodic testing is required for IPAWS-WEA and IPAWS-EAS as a result of being included in the SPS ANS Design Report. ANS will be assessed during biennial exercises in accordance with appropriately developed Exercise Evaluation Guides (EEGs) for ANS Objective and Capability Targets.

Quality Assurance

Annually, VDEM, with support from Dominion Energy as requested, conducts an audit of IPAWS-WEA, IPAWS-EAS, and the VDEM Public Notification System, verifying the following are maintained and/or completed:

- VDEM IPAWS certification;
- System training;
- Tier 1 cell carrier coverage maps; and
- Monthly database refresh of SPS plume exposure pathway EPZ resident telephone numbers into the VDEM Public Notification System.

Refer to Attachment 3: Draft Annual ANS Audit.

Description/Performance

Physical Requirements

- **System Components of IPAWS-WEA, IPAWS-EAS, and VDEM Public Notification System:**

IPAWS-WEA	IPAWS-EAS	VDEM Public Notification System
▪ Electronic device with internet connectivity (e.g., computer, mobile device) ▪ Internet service provider (ISP) ▪ VDEM Network ▪ Primary/Alternate IPAWS-compliant CAP Alert Origination Tool ▪ IPAWS-OPEN ▪ WEA dissemination channel ▪ Phone carrier ▪ End user	▪ Electronic device with internet connectivity (e.g., computer, mobile device) ▪ ISP ▪ VDEM Network ▪ Primary/Alternate IPAWS-compliant CAP Alert Origination Tool ▪ IPAWS-OPEN ▪ EAS dissemination channel ▪ Local EAS station ▪ End user	▪ Electronic device with internet connectivity (e.g., computer, mobile device) ▪ ISP ▪ VDEM Network ▪ VDEM Public Notification System platform ▪ Telephones ▪ End user

- **User Interfaces:**
  The Primary and Alternate IPAWS-compliant CAP Alert Origination Tools utilize an IPAWS-compliant input form that is simple and easy to use for inputting key critical information, enabling the SAU to target and launch alerts quickly and easily. Alerts are geographically targeted messages, using the county-based, Specific Area Messaging Encoding (SAME) code system. Additionally, both IPAWS-compliant CAP Alert Origination Tools encompasses an integrated alert and notification workflow that allows users to activate the system without having to open another application.

  The Primary IPAWS-compliant CAP Alert Origination Tool also contains a "Training Mode" that enables the SAU to teach users on the system without sending an actual message. When this mode is selected, the training test message is not sent to IPAWS-OPEN, but instead to a selected contact(s). Additionally, the Primary IPAWS-compliant CAP Alert Origination Software Provider makes available training courses and provides pertinent user guides and other interactive user help within the Tool in completing the alert and notification workflow process and ultimately activating the IPAWS-Complaint CAP Alert Origination Tool.

Administrative Components

- **Organizational Responsibilities:** The Governor of Virginia, or his/her designate, administers and provides ultimate oversight for IPAWS–WEA, IPAWS-EAS, and the VDEM Public Notification System.

  Figure 4 is an organizational chart depicting established roles and responsibilities for ANS operation, planning, maintenance, and applicable testing.

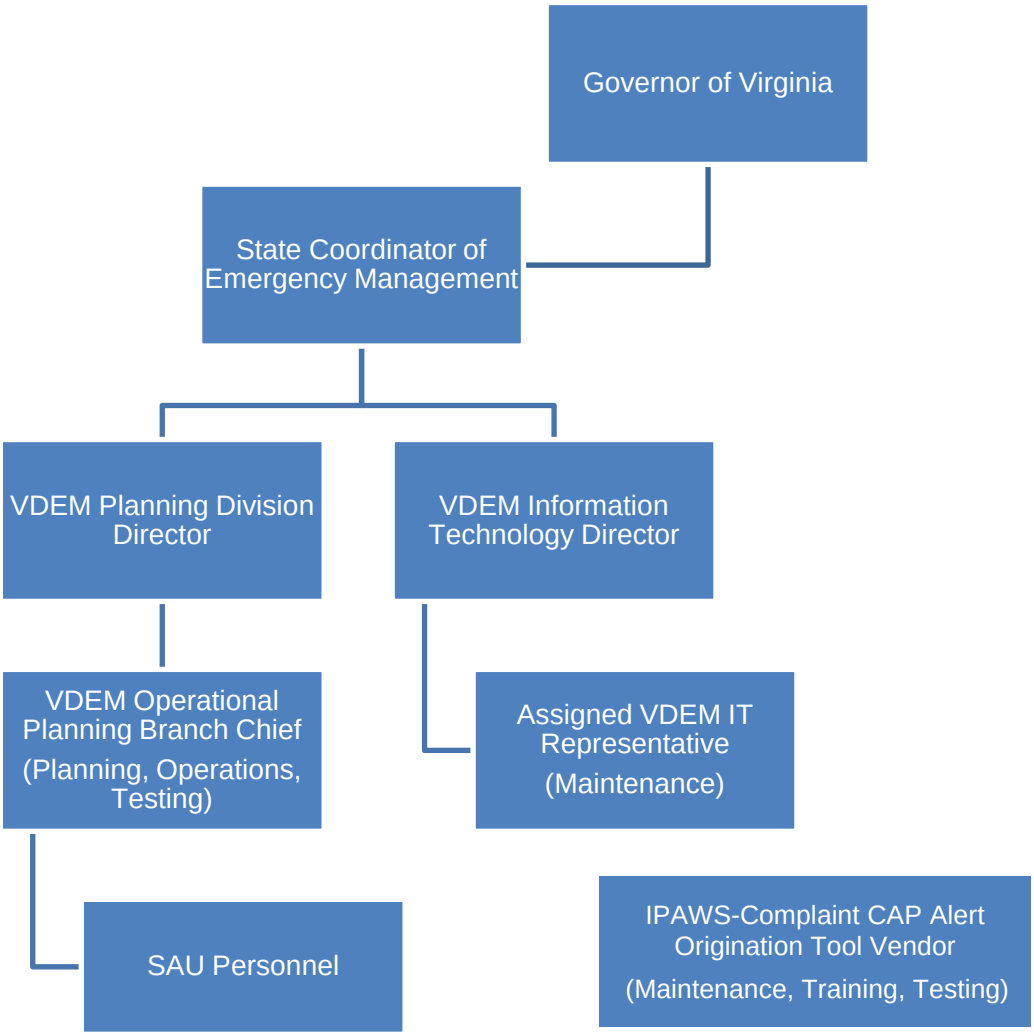


Figure 4: Organizational Chart

- **Management:** The Governor of Virginia, or his/her designate, administers and provides ultimate oversight for IPAWS–WEA, IPAWS-EAS, and the VDEM Public Notification System. IPAWS–WEA and IPAWS-EAS messages are sent from the SAU, by personnel trained and qualified to operate these systems. The SAU is staffed 24 hours per day, seven days per week. SAU personnel are available to activate the primary and/or backup ANS at any time.

Operational Components

- **Activation:** The decision to activate the ANS is made by VDEM. Both the primary and backup ANS are activated by VDEM in accordance with the Virginia Radiological Emergency Preparedness Plan (Technical Support Document). Activation of the ANS is performed by qualified SAU personnel, per VDEM's established IPAWS-WEA and IPAWS-EAS activation procedures.

The primary method SAU uses for transmitting an IPAWS-WEA and IPAWS-EAS messages is through IPAWS-compliant CAP Alert Origination Tools, which are always open and operational to receive and transmit messages, and constantly monitored by SAU personnel. IPAWS-WEA and IPAWS-EAS messages are pre-scripted for prompt ANS activation.

The backup ANS will be activated concurrently with the primary ANS, which is outlined in VDEM's established IPAWS-WEA and IPAWS-EAS activation procedures. Reference Attachment 6: Relevant Virginia Radiological Emergency Response Plan (Technical Support Document) Appendices and Procedures.

- **Timing:** IPAWS-WEA meets the 15-minute timing requirement, per 2018 National WEA Test After Action Report.

- **Geo-Targeting:** IPAWS is currently using Federal Information Processing Standard (FIPS) Code and Polygon. The VDEM Public Notification System works for 100 percent of the counties, based on the inputted data into the system.

Verification

Verification of ANS sub-systems design report requirements is accomplished through the annual audit. The audit captures the verification documentation / process for how each ANS design requirement is verified (e.g., via inspections, demonstrations, analysis, studies, reports, documentation/maintenance logs, etc.).

- **Coverage**: Verification of ANS coverage is verified through the annual ANS audit. This audit verifies the following are maintained and/or completed (reference Attachment 3: Draft Annual Audit):
    - VDEM IPAWS certification;
    - System training;
    - Tier 1 cell carrier coverage maps; and
    - Monthly database refresh of SPS plume exposure pathway EPZ resident telephone numbers into the VDEM Public Notification System.

- **Population/Demographics**: Population and demographic information is relied upon data from the 2010 United States Census.

- **Metrics:** These systems use data provided by a third party (FEMA, cellular phone companies, official U.S census data, etc.). No additional metrics are necessary.

Availability/Reliability

According to FEMA reports, IPAWS operates at a 94 percent or greater reliability/availability. Changes in IPAWS availability/reliability is reported by FEMA and verified during the annual audit.

EAS is overseen and monitored by the FCC and FEMA.

Security and Privacy

- **Physical Security:** IPAWS–WEA, IPAWS-EAS, and the VDEM Public Notification System messages are sent from the SAU, which is staffed 24 hours per day, 7 days per week. Access into the SAU is physically and administratively restricted and limited to VEST personnel. If a visitation is justified, visitors must sign-in to a visitor log and obtain a security badge. Visitors are continuously supervised while within the SAU.

- **Logical/Cyber Security:** Logical/cyber security is used to secure the Primary and Alternate IPAWS-compliant CAP Alert Origination Tools. The VDEM Public Notification System database information is stored on the Primary IPAWS-compliant CAP Alert Origination Tool's secure server. The database is stored on secure, non-publicly accessible servers within redundant data centers. User access to both systems is secured by username/password for personnel who are qualified and responsible for sending notifications. User administration access is strictly limited to those VDEM personnel who are qualified and responsible for administrative functions, which further safeguards information.

  The security framework for the Primary and Alternate IPAWS-compliant CAP Alert Origination Tools are based on current CAP security requirements/technical specifications and FEMA IPAWS Program guidance, as set by FEMA IPAWS Program Management Office. IPAWS-WEA and IPAWS-EAS messages include digital signatures that guarantee credible end-to-end authentication. Messages cannot be tampered with after they are disseminated. Additionally, both Primary and Alternate IPAWS-compliant CAP Alert Origination Tools adhere to existing VITA policies.

Training and Public Outreach

Training has been completed for IPAWS Alerting Authority through online training from FEMA EMI. Additional training has been provided on how to use IPAWS-OPEN, which is necessary to interface between the Alerting Authority and the alert distribution channels, as well as other recommended or required software provider/vendor-developed system trainings identified by VDEM. This training is provided to all authorized personnel with access to the system (reference Attachment 6: Relevant Virginia Radiological Emergency Response Plan [Technical Support Document] Appendices and Procedures).

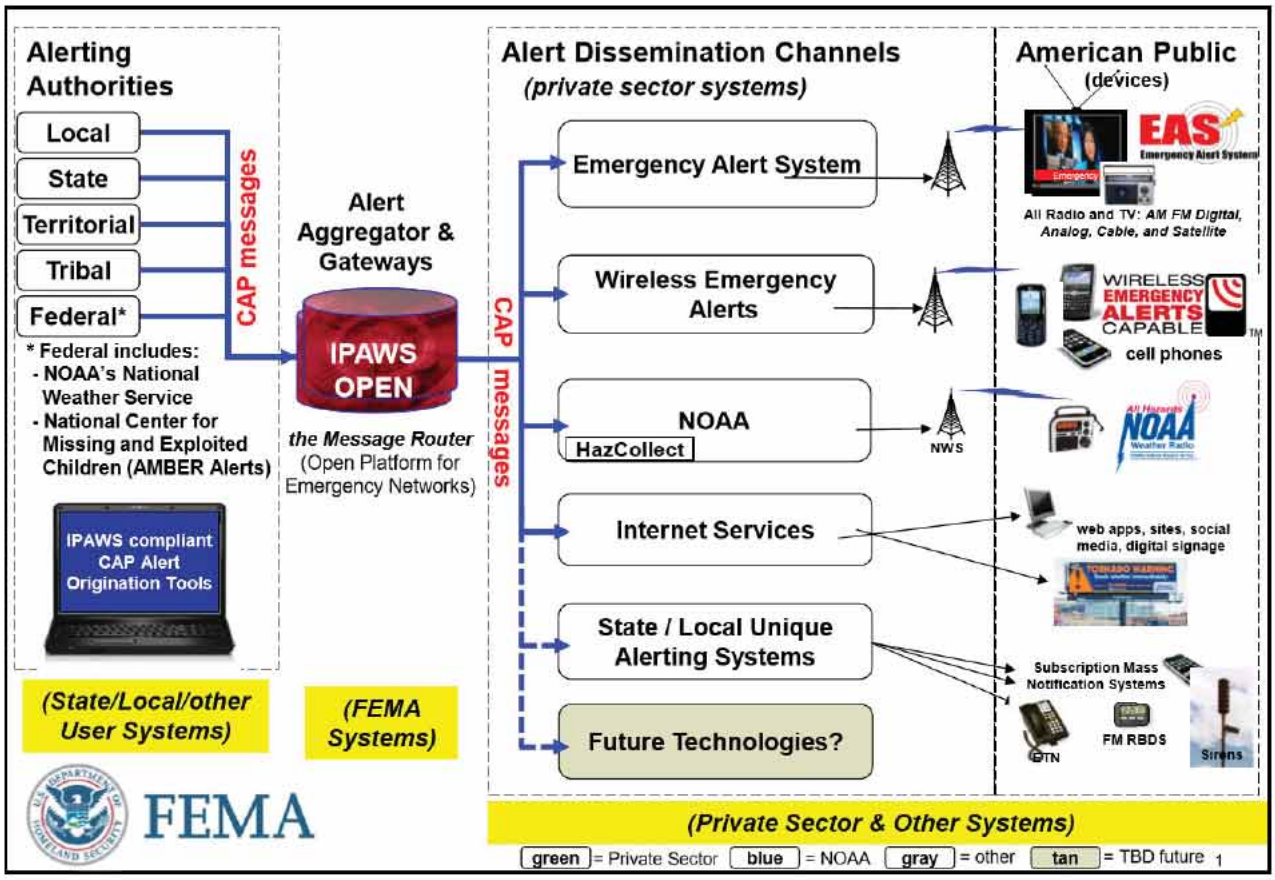
VDEM determines and maintains sufficient numbers of trained individuals to operate the ANS sub- systems. SAU staff complete IPAWS training (IS-247 Integrated Public Alert and Warning System) through the FEMA Emergency Management Institute (EMI) and other recommended or required software provider/vendor-developed system trainings identified by VDEM as deemed necessary and applicable. VEOC SAU staff also gain practical experience during the initial training, scheduled testing, and real-world emergencies.

To educate the public on the emergency notification process and actions to take in the event of a radiological emergency, SPS distributes public information materials to all residents, businesses, schools, and transient populations within the SPS plume exposure pathway EPZ on an annual basis. These informational materials include pertinent information for the public to know in an emergency, including what actions to take in the event the public receives an IPAWS-WEA message and identification of local radio and television stations for the public to access additional information related to the emergency.

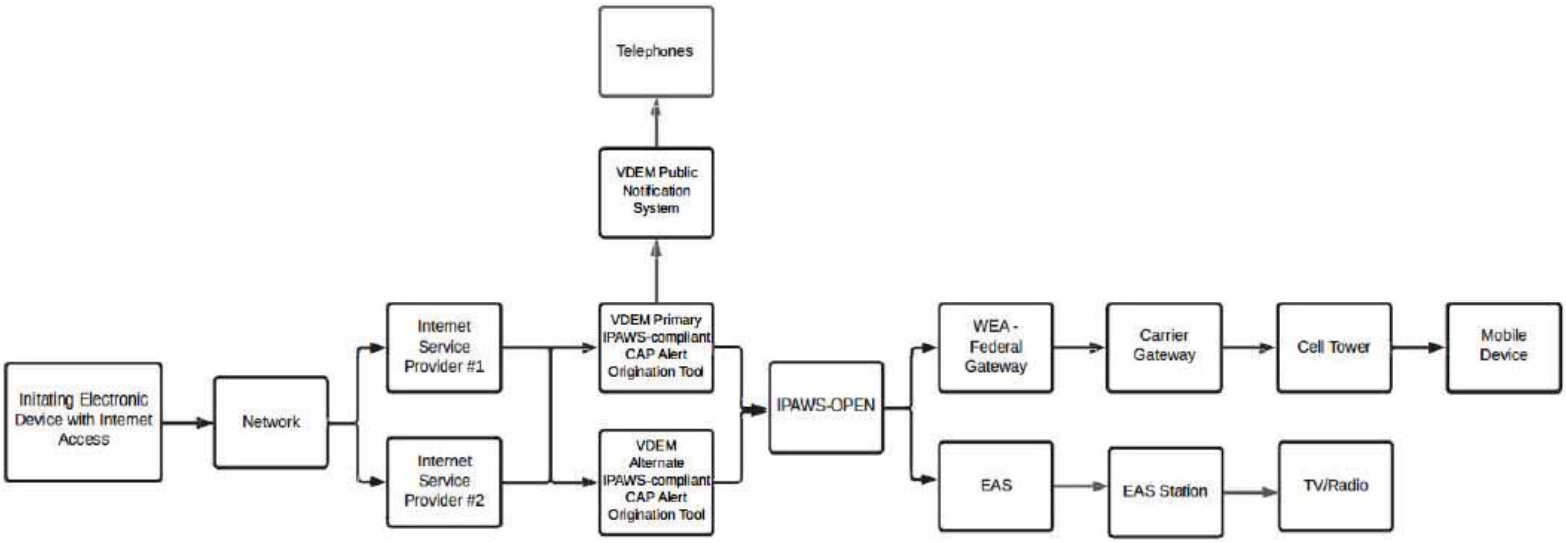
In addition to annually distributed public information materials, incorporating IPAWS-WEA as the primary alerting method enables SPS and the state and local agencies to promptly convey emergency information in the most efficient and maximal manner to individuals in the SPS plume exposure pathway EPZ. IPAWS-WEA allows the transient population to receive the same public information and instruction received by local residents, rather than being limited to condensed versions of emergency information posted in recreational/public areas and at local businesses on how to appropriately respond to alerts and take action in an emergency (i.e., what to do when you hear an alert and where to access additional emergency information). Additionally, with IPAWS-WEA (the primary alerting method) and the VDEM Public Notification System (the backup alerting method) capable of alerting the public and providing public information and instruction in real time, avoids complications of recalling previous disseminated information, furthering achieving early notification and clear, prompt instruction to the public.

SECTION 3: ATTACHMENTS

ATTACHMENT 1: FEMA IPAWS Architecture


Alerting Authorities
Local
State
Territorial
Tribal
Federal*
* Federal includes:
- NOAA's National Weather Service
- National Center for Missing and Exploited Children (AMBER Alerts)
IPAWS compliant CAP Alert Origination Tools
CAP messages
Alert Aggregator & Gateways
IPAWS OPEN
the Message Router
(Open Platform for Emergency Networks)
CAP messages
Alert Dissemination Channels
(private sector systems)
Emergency Alert System
Wireless Emergency Alerts
NOAA
HazCollect
NWS
Internet Services
State / Local Unique Alerting Systems
Future Technologies?
American Public
(devices)
EAS
Emergency Alert System
All Radio and TV: AM FM Digital, Analog, Cable, and Satellite
WIRELESS EMERGENCY ALERTS CAPABLE
cell phones
NOAA
web apps, sites, social media, digital signage
Subscription Mass Notification Systems
FM RBDS
Sirens
(State/Local/other User Systems)
(FEMA Systems)
FEMA
(Private Sector & Other Systems)
green = Private Sector
blue = NOAA
gray = other
tan = TBD future

ATTACHMENT 2: VDEM and SPS Primary and Backup Alert and Notification System Infrastructure


Telephones
VDEM Public Notification System
Initiating Electronic Device with Internet Access
Network
Internet Service Provider #1
Internet Service Provider #2
VDEM Primary IPAWS-compliant CAP Alert Origination Tool
VDEM Alternate IPAWS-compliant CAP Alert Origination Tool
IPAWS-OPEN
WEA - Federal Gateway
Carrier Gateway
Cell Tower
Mobile Device
EAS
EAS Station
TV/Radio

ATTACHMENT 3: Draft Annual ANS Audit

North Anna Power Station and Surry Power Station Alert and Notification System Audit Questionnaire

1.0 PURPOSE

1.1 Annually, the Virginia Department of Emergency Management (VDEM), with support from Dominion Energy as requested, conducts an audit of Integrated Public Alert and Warning System Wireless Emergency Alerts (IPAWS-WEA), IPAWS Emergency Alert System (IPAWS-EAS), and the VDEM Public Notification System. This audit monitors compliance with Alert and Notification System (ANS) design requirements described in the NAPS and SPS ANS Evaluation Reports by verifying the following are fulfilled:

- VDEM IPAWS certification;
- System training;
- Tier 1 cell carrier coverage maps; and
- Monthly database refresh of NAPS and SPS plume exposure pathway emergency planning zone (EPZ) resident telephone numbers into the VDEM Public Notification System.

1.2 This document provides a questionnaire and guideline for conducting the NAPS and SPS annual audit, including verifying the ANS design requirements are fulfilled and documented properly.

2.0 SCOPE

2.1 This questionnaire is to be used by Dominion Energy to verify the ANS design requirements are fulfilled and deemed satisfactory.

3.0 REFERENCES AND COMMITMENTS

3.1 References

3.1.1 *North Anna Power Station Alert and Notification System Evaluation Report*, Rev. 3.0, approved by FEMA XX-XX-XXXX.

3.1.2 *Surry Power Station Alert and Notification System Evaluation Report*, Rev. 3.0, approved by FEMA XX-XX-XXXX.

3.1.3 Federal Emergency Management Agency, *Radiological Emergency Preparedness Program Manual*.

3.1.4 Federal Emergency Management Agency, *Alerting Authorities*, https://www.fema.gov/emergency-managers/practitioners/integrated-public-alert-warning-system/public-safety-officials/alerting-authorities (IPAWS COG Identification Number 200058 for the Virginia Department of Emergency Management).

3.1.5 Virginia Department of Emergency Management, *Virginia Emergency Operations Center Situational Awareness Unit Emergency Alert System and Wireless Emergency Alerts Activation Procedures*.

3.2 Commitments

3.2.1 Audits for NAPS and SPS are performed at least annually of the IPAWS-WEA, IPAWS-EAS, and the VDEM Public Notification System to ensure compliance with the ANS design requirements described in the ANS Evaluation Reports are fulfilled.

4.0 DEFINITIONS

4.1 Alert and Notification System

4.1.1 The system used to alert and notify the public, including the physical means (equipment and methods) and administrative means (organizational responsibility and interaction of responsible organizations for alert and notification).

4.2 Alert System

4.2.1 The hardware system(s) used to get the attention of the public within the plume exposure pathway EPZ. An alert system may include a combination of sirens; IPAWS; tone activated radios; loudspeakers/sirens on vehicles (including boats and airplanes); and other equipment/technology that provides an alert signal.

4.3 Plume Exposure Pathway Emergency Planning Zone (EPZ)

4.3.1 North Anna plume exposure pathway EPZ: An area delineated by an approximate ten-mile radius circle around the North Anna Power Station Unit 1.

4.3.2 Surry plume exposure pathway EPZ: An area delineated by an approximate ten-mile radius circle around the Surry Power Station Unit 1.

4.4 Emergency Alert System (EAS)

4.4.1 Is a national public warning system that requires radio and TV broadcasters, cable TV, wireless cable systems, satellite and wireline operators to provide the President with capability to address the American people within 10 minutes during a national emergency.

Broadcast, cable, and satellite operators are the stewards of this important public service in close partnership with state, local, tribal, and territorial authorities.

FEMA, in partnership with the Federal Communications Commission and National Oceanic and Atmospheric Administration, is responsible for implementing, maintaining, and operating the EAS at the federal level.

4.4.2 EAS message(s) sent via IPAWS is the primary notification system for NAPS and SPS.

4.5 Integrated Public Alert Warning System (IPAWS)

4.5.1 Is a national system for local alerting that provides authenticated emergency alert and life-saving information messaging to the public through mobile phones using Wireless Emergency Alerts (WEA), and to radio and television via the EAS.

4.6 Notification

4.6.1 Distributing an instructional message, either through the EAS or some other system.

4.7 Notifying the Public

4.7.1 Distributing an instructional message, either through EAS or some other means (i.e., verbally, electronically, digitally, etc.).

4.8 Virginia Department of Emergency Management (VDEM) Public Notification System

4.8.1 An emergency telephone notification system that has the capability to perform a mass alert and notification to citizens. This system uses a database of telephone numbers and associated addresses to deliver emergency notifications to a specific geographic area via telephones. The VDEM Public Notification System alerts local residents and businesses by sending a text-to-speech message to telephones.

4.8.2 The VDEM Public Notification System is the backup alerting and/or notification method for NAPS and SPS.

4.9 Wireless Emergency Alerts (WEA)

4.9.1 WEA messages are short emergency messages from authorized federal, state, local, tribal and territorial public alerting authorities that can be broadcast from cell towers to any WEA-enabled mobile device in a locally targeted area. Wireless providers primarily use cell broadcast technology for WEA message delivery. WEA is a partnership among FEMA, the Federal Communications Commission (FCC) and wireless providers to enhance public safety.

WEAs can be sent to your mobile device when you may be in harm's way, without the need to download an app or subscribe to a service. WEAs are messages that warn the public of an impending natural or human-made disaster. The messages are short and can provide immediate, life-saving information.

4.9.2 WEA message(s) sent via IPAWS is the primary alerting method for NAPS and SPS.

5.0 RESPONSIBILITIES

5.1 Dominion Energy, Emergency Preparedness Division

5.1.1 Support the annual audit of the Primary and Alternate IPAWS-compliant Origination Tools with appropriate VDEM staff, as requested.

5.1.2 Maintain audit questionnaire and update as necessary.

5.1.3 Maintain annual audit records for the Primary and Alternate IPAWS-compliant Origination Tools.

5.1.4 Coordinate the monthly database refresh of NAPS and SPS plume exposure pathway EPZ resident telephone numbers into the VDEM Public Notification System.

5.1.5 Document and submit necessary documentation of unmet or unsatisfactory ANS design requirements, as necessary.

5.1.6 Perform other tasks as outlined in the NAPS and SPS ANS Evaluation Reports.

5.2 Virginia Department of Emergency Management, Situational Awareness Unit

5.2.1 Conduct the annual audit of the Primary and Alternate IPAWS-compliant Origination Tools with appropriate Dominion Energy staff, as applicable.

5.2.2 Coordinate the monthly database refresh of NAPS and SPS plume exposure pathway EPZ resident telephone numbers into the VDEM Public Notification System.

5.2.3 Document documentation of completing and/or maintaining ANS design requirements, as necessary.

5.2.4 Document and submit necessary documentation of unmet or unsatisfactory ANS design requirements, as necessary.

5.2.5 Perform other applicable tasks as outlined in the NAPS and SPS ANS Evaluation Reports.

6.0 PRECAUTIONS/LIMITATIONS

6.1 None

7.0 RECORDS

7.1 The following records generated by this document are non-QA records and should be retained by Corporate Emergency Preparedness for a period of five years:

7.1.1 Completed NAPS Annual ANS Audit.

7.1.2 Completed SPS Annual ANS Audit.

8.0 QUESTIONNAIRE

8.1 Verify all ANS design requirements are maintained and meet the minimum acceptable design objectives for coverage by and capability of the ANS, as well as support the capability to promptly alert and notify the public, and provide clear, accurate communication to the public in timely manner.

8.2 The verification documentation / process is the method for how the ANS design requirement was verified (e.g., via inspections, demonstrations, studies, reports, documentation/maintenance logs, etc.).

ANS Design Requirement	Verification Documentation / Process	Comments	Date Verified
VDEM IPAWS certification verified • Verify the VDEM IPAWS certification remains valid.			
ANS sub-systems training completed • Review and verify all required training, as identified and determined by VDEM, are completed for all designated personnel responsible for managing and activating the primary and backup ANS sub-systems. (Required training courses are determined and subject to change per VDEM's discretion).			
Tier 1 cell coverage verified • Review and verify IPAWS-WEA coverage is maintained, including annually reviewing Verizon, AT&T, and T-Mobile/Sprint cell carrier coverage maps, identifying any significant, impactful changes in coverage.			

Monthly database refresh of NAPS and SPS plume exposure pathway EPZ resident telephone numbers into the VDEM Public Notification System completed • Review and verify a monthly refresh of NAPS and SPS residential telephone numbers were updated into the VDEM Public Notification System database.			

Additional Comments:

Audit conducted by (Print and Signature): _____

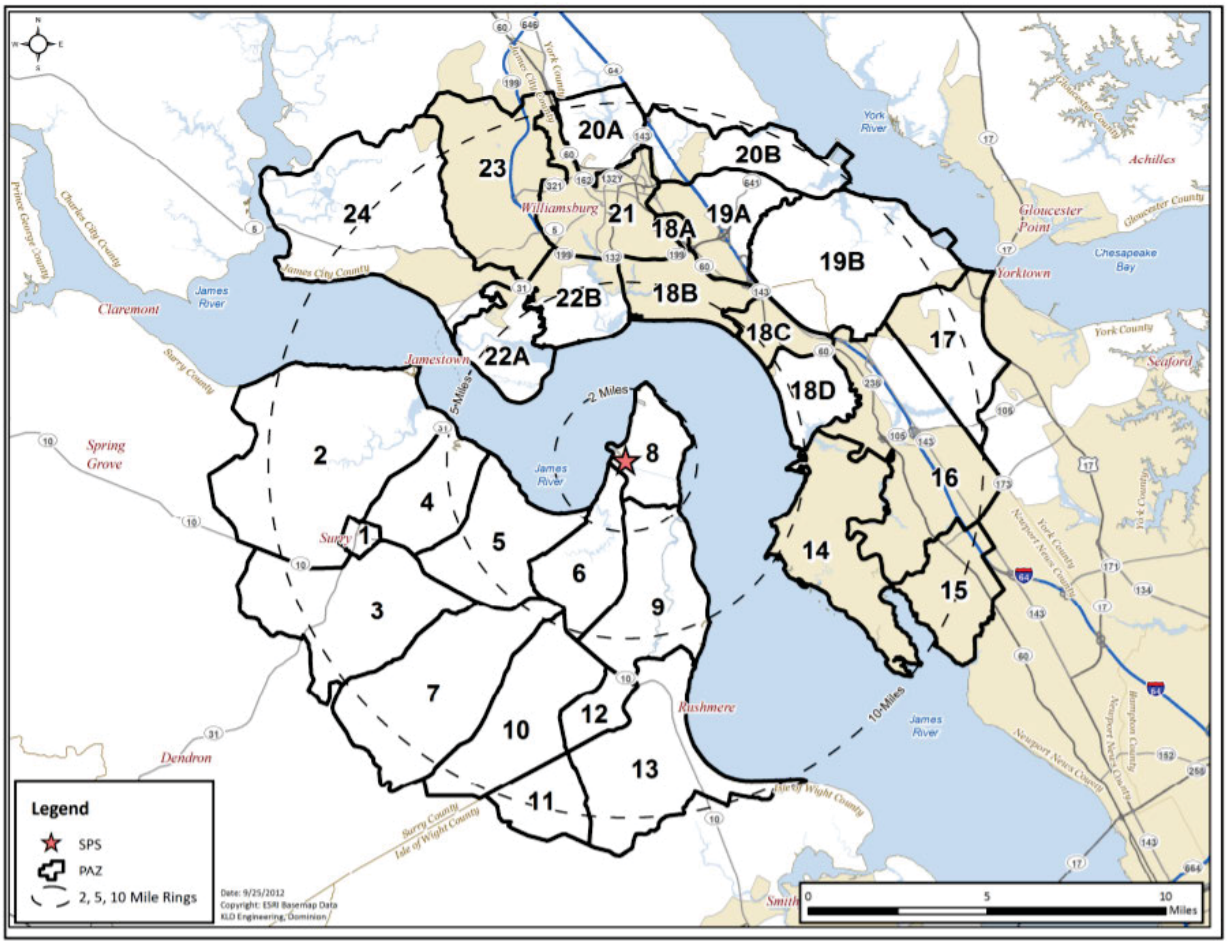
Date: _____

ATTACHMENT 4: Coverage Maps for Tier 1 Cellular Carriers:

VERIZON

AT&T

T-MOBILE / SPRINT



Reference for Cell Coverage Maps:

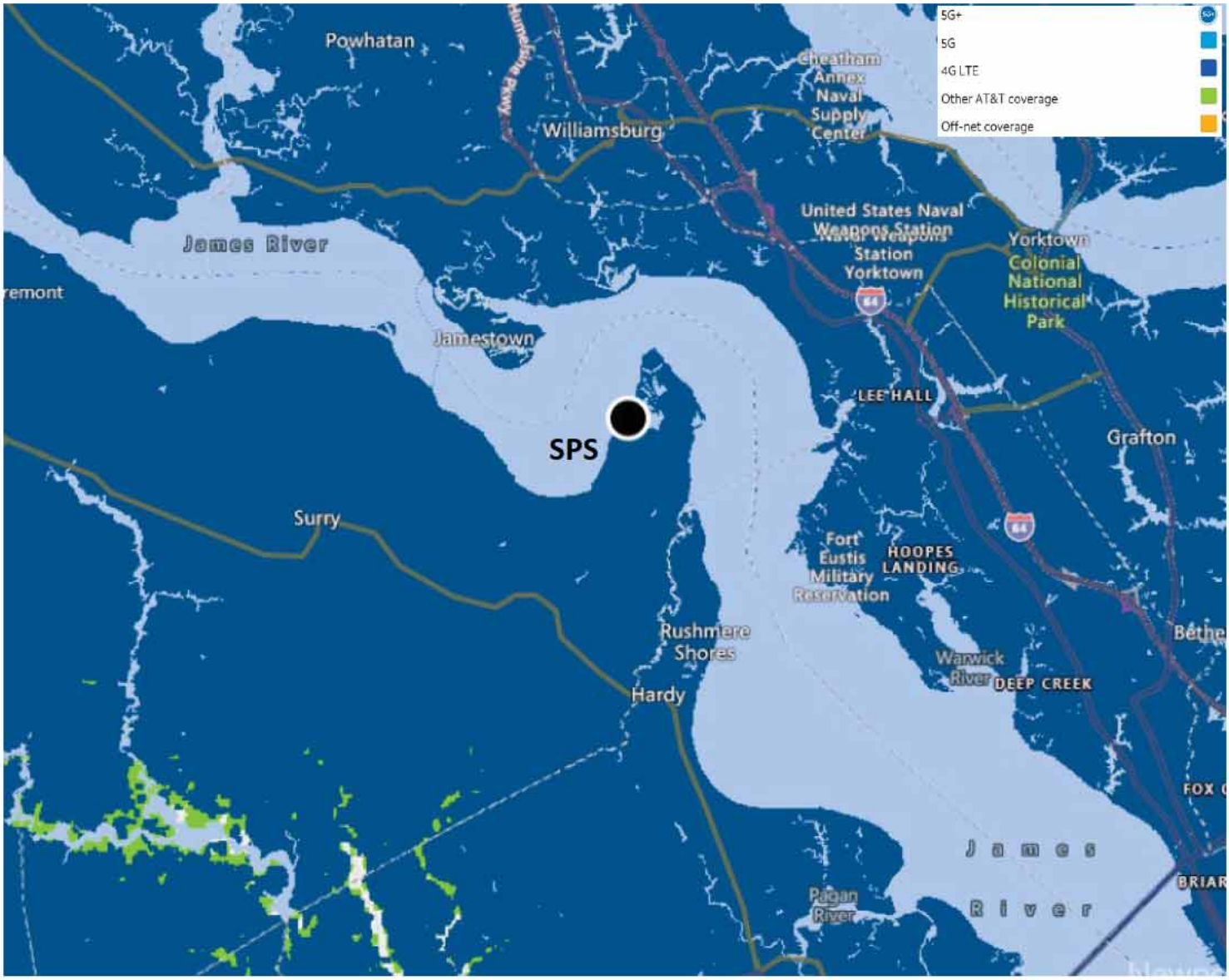
SPS Plume Exposure Pathway EPZ

Verizon™ Coverage Map, April 8, 2021

(Source: https://www.verizon.com/coverage-map)

NOTES:

- Light red indicates Verizon 4G LTE coverage.
- Dark red indicates Verizon 5G coverage.
- Area shown is well in excess of the NAPS plume exposure pathway EPZ. Reference the NAPS plume exposure pathway EPZ map, Page 42.

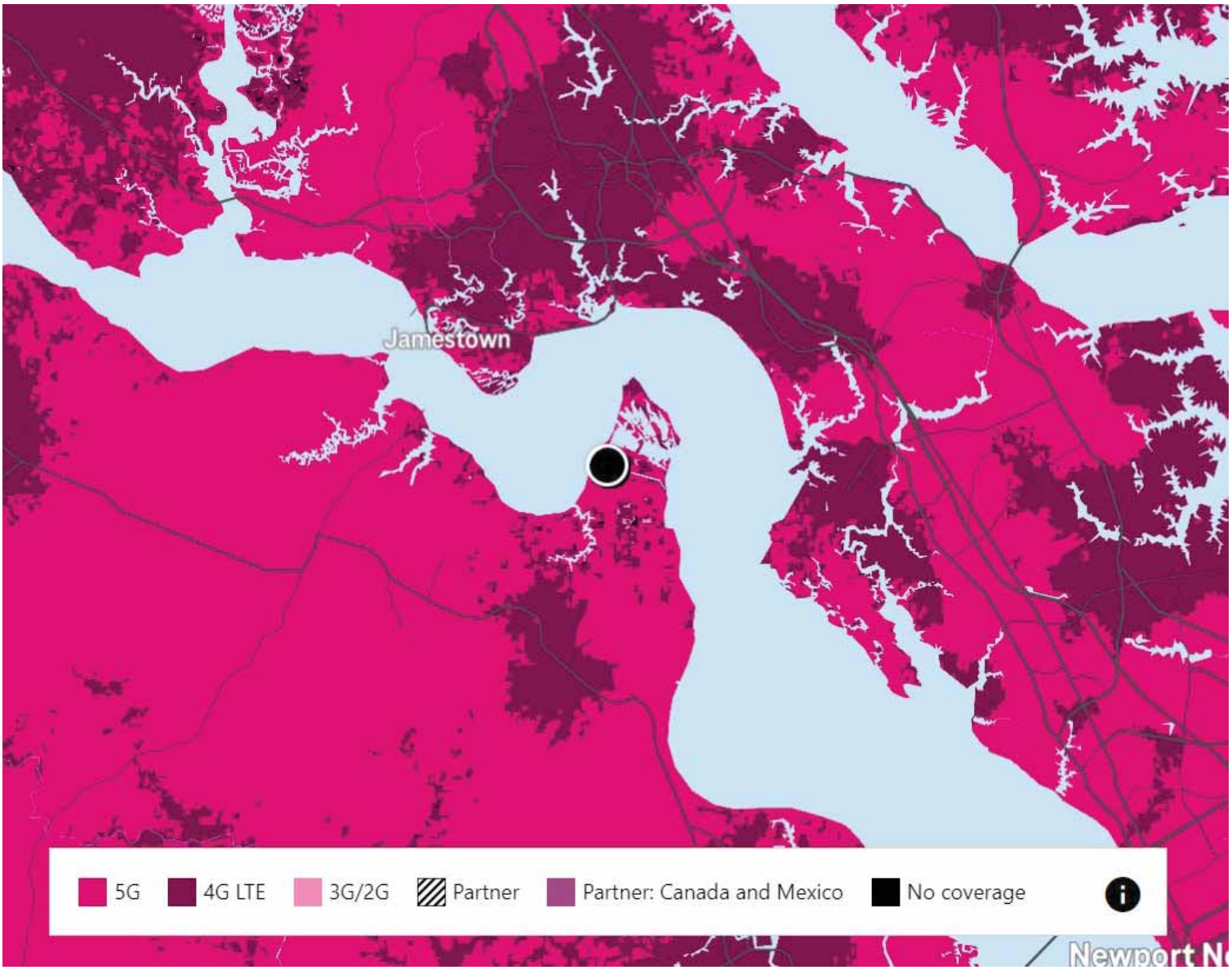


AT&T™ Coverage Map, April 8, 2021

(Source: https://www.att.com/maps/wireless-coverage.html)

NOTES:

- Dark blue indicates 4G LTE coverage.
- Light blue/turquoise indicates 5G coverage.
- Area shown is well in excess of the NAPS plume exposure pathway EPZ. Reference NAPS plume exposure pathway EPZ map, Page 42.



T-Mobile™ and Sprint™ Coverage Map, April 8, 2021**

(Source: https://www.t-mobile.com/coverage/coverage-map)

NOTES:

- Pink indicates 5G LTE coverage.
- Maroon indicates 4G LTE coverage.
- Black indicates no coverage.
- Area shown is well in excess of the NAPS plume exposure pathway EPZ. Reference NAPS plume exposure pathway EPZ map, Page 42.

**With the Sprint and T-Mobile merger in 2020, map coverage reflects cellular coverage for both T-Mobile and Sprint.

ATTACHMENT 5: VDEM and FEMA IPAWS Memorandum of Agreement

Memorandum of Agreement
between the
Virginia Department of Emergency Management
and the

Federal Emergency Management Agency
Integrated Public Alert and Warning System
(IPAWS) Program Management Office

Regarding the use of:
Virginia Department of Emergency Management
Interoperable System(s)
and
IPAWS OPEN Platform for Emergency Networks
(IPAWS-OPEN)

Version 4.2

17 Jun 2020

MEMORANDUM OF AGREEMENT

1.0 SUPERSEDES: Virginia Department of Emergency Management_MOA-1, signed 05/12/2012

2.0 INTRODUCTION

The purpose of this memorandum is to establish a management agreement between the Virginia Department of Emergency Management hereinafter referred to as the Collaborative Operating Group (COG), and the Federal Emergency Management Agency (FEMA) IPAWS Program regarding the utilization and security of Virginia Department of Emergency Management Interoperable System(s) (as shown in Appendix A), which interoperate with the IPAWS-Open Platform for Emergency Networks (IPAWS-OPEN). The expected benefit is to enable information interoperability across emergency response organizations and systems as intended by the FEMA IPAWS Program.

This agreement will govern the relationship between the Collaborative Operating Group and FEMA, including designated managerial and technical staff and system users associated with the aforementioned COG. As indicated within the terms of this agreement, both parties agree to allow system interoperability through the use of SOAP over HTTPS via the public internet. Under this agreement, no direct or networked connection using VPN (or equivalent technology) between the systems named in Appendix A and IPAWS-OPEN is allowed. In the event a direct connection is required, an Interconnection Security Agreement must be executed.

3.0 AUTHORITY

The authority for this agreement is based on the Communications Act of 1934, as amended (47 U.S.C § 606) and the implementation of regulation 47 C.F.R § 11 which establishes the statutory basis under which the FEMA IPAWS Program operates emergency alerting systems. In addition, Executive Order 13407 of June 26, 2006, Public Alert and Warning System Executive Order states, "It is the policy of the United States to have an effective, reliable, integrated, flexible, and comprehensive system to alert and warn the American people…establish or adopt, as appropriate, common alerting and warning protocols, standards, terminology, and operating procedures for the public alert and warning system to enable interoperability and the secure delivery of coordinated messages to the American people". In response, FEMA established the IPAWS Program Management Office (PMO) in April 2007.

4.0 BACKGROUND

It is the intent of both parties to this agreement to establish and utilize a standardized web based application interface (as defined by the IPAWS-OPEN Web Service Interface Design Guidance) between the information technology (IT) systems shown below to facilitate the exchange of emergency messages within the production environment. The testing of the interoperability of these systems has been performed through the use of FEMA's Test and Development environment to ensure the transference and receipt of emergency messages using approved messaging standards. The interoperability between these systems is supported by the use of SOAP over HTTPS via the public internet.

5.0 COMMUNICATIONS

Frequent formal communications are essential to ensure the successful management and operation of system interoperability. Both parties agree to maintain open lines of communication between designated staff (as indicated in Appendix B) at both the managerial and technical levels. All communications described herein must be conducted in writing and may be disseminated by electronic means unless otherwise noted.

The owners of the respective systems agree to designate and provide contact information for technical leads for their respective systems, and to facilitate direct contacts between technical leads to support the management and operation of system interoperability. To safeguard the confidentiality, integrity, and availability of the systems and the data they store, process, and transmit, both parties agree to provide notice of specific events within the timeframes indicated below:

- **Security Incidents:** Technical, administrative and/or help desk staff will <u>immediately</u> notify their designated counterparts by telephone or e-mail when a security incident(s) is detected and/or a violation of the Rules of Behavior (see Appendix C) has been identified. Both parties agree to make the appropriate technical and administrative individuals available for all necessary inquiries and/or investigations. Containment and/or resolution procedures will be documented by the identifying party and after action reports generated and

submitted to the system owner and/or designated security officials within five (5) business days after detection of the incident(s).

- **Disasters and Other Contingencies:** The FEMA IPAWS Program Office will notify the COG by telephone, e-mail or other acceptable means in the event of a disaster or other contingency that disrupts the normal operation of IPAWS-OPEN.

- **System Interconnections:** This MOA is intended for systems interoperating with IPAWS-OPEN using SOAP over HTTPS via the public Internet. If in the future, an interconnection (i.e. dedicated system-to-system connection) is required to IPAWS-OPEN, this MOA must be updated and an Interconnection Security Agreement (ISA) must be executed. If a change in status from interoperating to interconnected system is required, the initiating party will notify the other party at least 3 months before the planned interconnection is to be in place.

- **Discontinuation of Use:** In the event the use of IPAWS-OPEN is no longer required, the COG agrees to immediately notify, in writing, the FEMA IPAWS Program Office at which time the COGID and associated access credentials will be deactivated.

- **Personnel Changes:** Both parties agree to provide notification of changes to their respective system owner or technical lead. In addition, both parties will provide notification of any changes in the point of contact information provided in Appendix B. All relevant personnel changes and changes to contact information must be provided within 5 business days of the change.

6.0 TYPE OF INTERCONNECTIVITY

Both parties agree that the COG will utilize only the assigned COGID, associated credentials and digital certificates provided by the FEMA IPAWS Program Office to support interoperability between the system(s) listed in Appendix A and IPAWS-OPEN. In addition, all interoperable systems must be configured to interface with IPAWS-OPEN over the public Internet using only approved web service standards and associated requirements. A listing of approved web service standards and supporting requirements can be obtained from the IPAWS-OPEN Web Service Interface Design Guidance document.

In the event, a dedicated connection is required, both parties will agree to negotiate and execute an Interconnection Security Agreement (ISA) as required per Department of Homeland Security (DHS) policy which must be signed by all required parties before the interconnection is activated. Proposed changes to either system that affect system interoperability will be reviewed and evaluated to determine the potential impact. If the proposed changes impact the agreed upon terms, the MOA will be renegotiated and executed before changes are implemented.

7.0 SECURITY

To ensure the joint security of the systems and the message data they store, process, and transmit, both parties agree to adhere to and enforce the Rules of Behavior (as specified in Appendix C). In addition, both parties agree to the following:

- Ensure authorized users accessing the interoperable system(s) receive, agree to abide by and sign (electronically or in paper form) the IPAWS-OPEN Rules of Behavior as specified in Appendix C. Each jurisdiction is responsible for keeping the signed Rules of Behavior on file or stored electronically for each system user.

- Utilize FEMA approved PKI certificates to digitally sign messages as they are transported over the public Internet.

- Certify that its respective system is designed, managed and operated in compliance with all relevant federal laws, regulations, and policies.

- Document and maintain jurisdictional and/or system specific security policies and procedures and produce such documentation in response to official inquiries and/or requests.

- Provide physical security and system environmental safeguards for devices supporting system interoperability with IPAWS-OPEN.

- Ensure physical and logical access to the respective systems as well as knowledge of the COGID and associated access criteria are only granted to properly vetted and approved entities or individuals.
- Where applicable, ensure that only individuals who have successfully completed FEMA-required training can utilize the interoperable systems to issue alerts and warnings intended for distribution to the public.
- Where applicable, document and maintain records of successful completion of FEMA-required training and produce such documentation in response to official inquiries and/or requests.

8.0 PROFICIENCY DEMONSTRATION

Once enabled, each COG operating under this agreement must demonstrate their ability to compose and send a message through the IPAWS-OPEN system at regular intervals. Such demonstration must be performed on a monthly basis through generation of a message successfully sent through the IPAWS-OPEN Training and Demonstration environment.

9.0 ASSOCIATED SOFTWARE REQUIREMENTS

The COG will need to select a software package which will allow the COG to properly populate a Common Alerting Protocol (CAP) message which complies with both the *OASIS Common Alerting Protocol Version 1.2* and the *OASIS Common Alerting Protocol, v. 1.2 USA Integrated Public Alert and Warning System Profile Version 1.0*. With respect to the software and the software vendor selected FEMA expects the selected software to provide the following minimum critical capabilities and services:

- Permissions:
  - The ability to assign and manage user permissions; and
  - The ability to retrieve and view IPAWS Alerting Permissions
- Proficiency:
  - The provision of vendor support, to include user training, and around the clock technical support; and
  - The ability to submit both live and test digital certificates, with clear, easily identifiable information that indicates the environment to which the software is pointed (Live or Test)
- User Interface:
  - The provision of an intuitive user interface, to include help menus; and
  - The ability to notify the user of digital certificate expiration; and
  - The ability to constrain event types and geocodes to user permissions; and
  - The ability to send one alert to multiple channels; and
  - The provision of displays that show required fields based on selected channel; and
  - The ability to pre-populate fields to the greatest extent possible; and
  - The ability to support templates; and
  - The ability to create a polygon or circle, of less than 100 nodes; and
  - The ability to update or cancel an alert, without having to reenter all of the data; and
  - The ability to alert the end user if a software license has expired; and
  - Clear explanations if alert information is case sensitive when entered
- Confirmation and Error Checking:
  - The ability to pre-check an alert message for errors, prior to sending; and
  - The ability to create free-form 90-character WEA text, while preventing prohibited characters; and
  - The provision to IPAWS of alert status codes for any sent alert, with a clear definition of whether the codes are advice codes or error codes, along with the meaning of those codes; and

- The provision of user confirmation of connectivity to IPAWS; and
- The ability for users to see alert history and/or logs

10.0 COST CONSIDERATIONS

This agreement does not authorize financial expenditures by the COG on behalf of FEMA. The FEMA IPAWS Program is responsible for the costs associated with developing, operating and maintaining the availability of the IPAWS-OPEN system. The COG is responsible for all costs related to providing their users with access to IPAWS-OPEN via the public Internet. These costs may include hardware, software, monthly Internet charges, completion of security awareness training and other related jurisdictional costs.

11.0 PROPERTY OWNERSHIP

Each Party agrees and acknowledges that nothing in this Agreement shall be construed as giving a party any proprietary rights in or to the intellectual property of the other party. Each Party further agrees that nothing in this Agreement shall be construed as creating or granting to a party any implied or express license in or to the intellectual property of the other party.

12.0 TIMELINE

This agreement will remain in effect based on the life of the Authority to Operate (ATO) for IPAWS-OPEN or a maximum of three (3) years after the last date on either signature in the signature block below. Upon expiration of the IPAWS-OPEN ATO or after three (3) years (whichever comes first), this agreement will expire without further action and system access privileges will be revoked. If the parties wish to extend this agreement, they may do so by reviewing, updating, and reauthorizing this agreement. This agreement supersedes all earlier agreements, which should be referenced above by title and date. If one or both of the parties wish to terminate this agreement prematurely, they may do so upon 30 days' advanced notice or in the event of a security incident that necessitates an immediate response. This agreement may be suspended by FEMA for failure to perform the Proficiency Demonstration for two consecutive months. A suspended COG may be reinstated upon a completion of a successful Proficiency Demonstration.

SIGNATORY AUTHORITY

I agree to the terms of this Memorandum of Agreement. Noncompliance on the part of either organization or its users or contractors concerning the policies, standards, and procedures explained herein may result in the immediate termination of this agreement.

Virginia Department of Emergency Management Official
Name: Curtis Brown
Title: State Coordinator

07/17/2020

(Signature Date)

Virginia Department of Emergency Management
9711 Farrar Court, Suite 200
North Chesterfield, VA, 23236

Federal Emergency Management Agency
IPAWS-OPEN System Owner
Name: Mark A. Lucero
Title: Chief, IPAWS Engineering

(Signature Date)

Attn: IPAWS-OPEN System Owner, Suite 5NW-0309
Federal Emergency Management Agency
500 C Street SW
Washington, D.C. 20472-3153

Appendix A

Listing of Interoperable Systems

The FEMA IPAWS Program recognizes that Emergency Management organizations may utilize multiple tools to facilitate the emergency management process. As a result, jurisdictions may need to interoperate with IPAWS-OPEN using more than one system. In order to comply with DHS policy, all systems interoperating with IPAWS-OPEN must be documented and supported by a Memorandum of Agreement. As a result this appendix must be completed to identify all systems associated with the COG and used for interoperating with IPAWS-OPEN. This Appendix must be amended as applicable systems are added or removed from operations.

- **IPAWS-OPEN**

Function:	IPAWS-OPEN is the backbone system that structures the alert and distributes the message from one interoperating and/or interconnected system (message sender) to another interoperating and/or interconnected system (message recipient).
Location:	[redacted]
Description of data, including sensitivity or classification level:	Messaging data is considered Sensitive But Unclassified (SBU) information and does not contain Personally Identifiable Information (PII), Financial data, Law Enforcement Sensitive Information or classified information. Each message that flows through the IPAWS-OPEN system will be associated to a specifically assigned system User ID and COGID as captured within the message elements. This information will be retained in system logs.

The systems listed below are managed and operated by the COG and are subject to the terms defined within the Memorandum of Agreement including the Rules of Behavior in Appendix C. Each interoperable system will be assigned unique authentication credentials, which must be protected by the COG. In the event these credentials are compromised, the COG is expected to immediately contact the FEMA IPAWS Program Management Office. The systems listed below are only allowed to interoperate with IPAWS-OPEN based on the criteria set forth within the IPAWS-OPEN Web Service Interface Design Guidance.

- **Virginia Emergency Management Network (EMnet) BY Communications Laboratories, Inc**

Function:	Functions as the primary Digital means to activate EAS in Virginia.
Location:	[redacted]
Description of data, including sensitivity or classification level:	COTS FOUO Unclassified alert and emergency response information. Data is comprised of Unclassified, non-sensitive CAP data.

- **Everbridge**

Function:	Functions as the secondary digital means to transmit an EAS or WEA message in Virginia.
Location:	[redacted]
Description of data, including sensitivity or classification level:	Unclassified alert and emergency response information.

Appendix B

COG Point of Contact Information

Designated COG Primary Point of Contact:

Name: Archer Stark

Title: Acting Operational Planning Branch Chief

Business Email Address: archer.stark@vdem.virginia.gov

Primary Phone Number: [redacted]

Alternate Phone Number:

Organization: Virginia Department of Emergency Management

Mailing Address: 7700 Midlothian Turnpike, North Chesterfield, VA, 23235

Designated Alternate Point of Contact:

Name: Stacie Neal

Title: Planning Division Director

Business Email Address: stacie.neal@vdem.virginia.gov

Primary Phone Number: [redacted]

Alternate Phone Number:

Organization: Virginia Department of Emergency Management

Mailing Address: 9711 Farrar Court, Suite 200, North Chesterfield, VA, 23236

Designated Technical Point of Contact:

Name: Archer Stark

Title: Acting Operational Planning Branch Chief

Business Email Address: archer.stark@vdem.virginia.gov

Primary Phone Number: [redacted]

Alternate Phone Number:

Organization: Virginia Department of Emergency Management

Mailing Address: 7700 Midlothian Turnpike, North Chesterfield, VA, 23235

FEMA: Integrated Public Alert and Warning System Open Platform for Emergency Networks (IPAWS-OPEN)

Contact Name	Contact Number	Email Address	Summary of System Responsibilities
Lytwaive Hutchinson	[redacted]	lytwaive.hutchinson@fema.dhs.gov	Chief Information Officer, FEMA
Craig Wilson	[redacted]	craig.wilson@fema.dhs.gov	Acting Chief Information Security Officer
Mark Lucero	[redacted]	mark.lucero@fema.dhs.gov	System Owner
Gary Ham	[redacted]	gary.ham@associates.fema.dhs.gov	FEMA PMO - IPAWS-OPEN
Gustavo Barbet	[redacted]	gustavo.barbet@associates.fema.dhs.gov	FEMA ISSO - IPAWS-OPEN
Neil Bourgeois	[redacted]	neil.bourgeois@associates.fema.dhs.gov	FEMA-EADIS IPAWS-OPEN Tech Lead

Appendix C

IPAWS-OPEN Rules of Behavior

1.0 INTRODUCTION

The following rules of behavior apply to all persons with application access to Virginia Department of Emergency Management Interoperable System(s) and/or who have been issued a COGID with associated credentials for IPAWS-OPEN. These individuals shall be held accountable for their actions related to the information resources entrusted to them and must comply with the following rules or risk losing their access privileges. The Rules of Behavior apply to users on official travel as well as at their primary workplace (e.g., Emergency Operations Center – EOC) and at any alternative workplace (e.g., telecommuting from a remote or satellite site) using any electronic device including laptop computers and portable electronic devices (PED's). PED's include personal digital assistants (PDA's) (e.g. Palm Pilots), cell phones, text messaging systems (e.g., Blackberry), and plug-in and wireless peripherals that employ removable media (e.g. CDs, DVDs, etc.). PEDs also encompass USB flash memory (thumb) drives, external drives, and diskettes. These Rules of Behavior are consistent with existing DHS policies and DHS Information Technology (IT) Security directives and are intended to enhance the awareness of each user's responsibilities regarding accessing, storing, receiving and/or transmitting information using IPAWS-OPEN.

2.0 APPLICATION RULES

2.1 Official Use

- IPAWS-OPEN is a Federal application to be used only in the performance of the user's official duties in support of public safety as described in the National Incident Management System (NIMS).
- The use of the IPAWS-OPEN for unauthorized activities is prohibited and could result in verbal or written warning, loss of access rights, and/or criminal or civil prosecution.
- By utilizing IPAWS-OPEN, the user of the interoperable system(s) consents to allow system monitoring to ensure appropriate usage for public safety is being observed.
- Virginia Department of Emergency Management will be held accountable for safeguarding all configuration items and information entrusted to them by FEMA. Virginia Department of Emergency Management is expected to manage the relationship with supporting vendors, consultants and any other entities providing system support on their behalf. In addition, Virginia Department of Emergency Management will be held accountable in the event of a security breach or disclosure of sensitive configuration information such as digital certificates. Virginia Department of Emergency Management understands that the use of digital signatures, used on their behalf, is binding and Virginia Department of Emergency Management will be held accountable accordingly. In the event sensitive information is mishandled, utilization of IPAWS-OPEN may be immediately revoked by FEMA.
- If software interoperating with IPAWS-OPEN enables users to geo-target public alert messages by means of geospatial polygons or circles, then the user shall restrict any such geospatial boundaries so as to remain within the geographical limits of their public warning authority (or as near as possible), as determined by applicable state and/or local laws and duly adopted operational plans.

2.2 Access Security

- All Email addresses provided in connection with interoperable system(s) user accounts must be associated to an approved email account assigned by the user's emergency management organization. The use of personal email accounts to support emergency messaging through IPAWS-OPEN is prohibited.
- Upon approval of the MOA by FEMA, a COG account with COGID and Digital Certificate will be created and issued to the designated technical representative. All individuals with knowledge of these credentials must not share or alter these authentication mechanisms without explicit approval from the FEMA IPAWS

Program.

- Every interoperable system user is responsible for remote access security as it relates to their use of IPAWS-OPEN and shall abide by these Rules of Behavior.

2.3 Interoperable System User Accounts and Passwords

- All users must have a discrete user account ID which cannot be the user's social security number. To protect against unauthorized access, passwords linked to the user ID are used to identify and authenticate authorized users.
- Accounts and passwords shall not be transferred or shared. The sharing of both a user ID and associated password with anyone (including administrators) is prohibited.
- Accounts and passwords shall be protected from disclosure and writing passwords down or electronically storing them on a medium that is accessible by others is prohibited.
- The selection of passwords must be complex and shall:
  - Be at least eight characters in length
  - Contain a combination of alphabetic, numeric and special characters
  - Not the same as any of the user's previous 8 passwords.
- Passwords shall not contain any dictionary word.
- Passwords shall not contain any proper noun or the name of any person, pet, child, or fictional character. Passwords shall not contain any employee serial number, Social Security number, birth date, phone number, or any information that could be readily guessed about the creator of the password.
- Passwords shall not contain any simple pattern of letters or numbers, such as "qwerty" or "xyz123".
- Passwords shall not be any word, noun, or name spelled backwards or with a single digit appended, or with a two-digit "year" string, such as 98xyz123.
- Pass phrases, if used in addition to or instead of passwords, should follow the same guidelines.
- Passwords shall not be the same as the User ID.
- Users shall either log off or lock their workstations when unattended.
- Workstations shall be configured to either log off, or activate a password-protected lock, or password-protected screensaver within fifteen (15) minutes of user inactivity.
- Locked sessions shall remain locked until the user re-authenticates.
- Workstations shall be protected from theft.
- A user's account shall be automatically locked after three consecutive failed logon attempts.
- The automatic lockout period for accounts locked due to failed login attempts shall be set for a minimum of twenty (20) minutes.
- A process shall exist for manually unlocking accounts prior to the expiration of the twenty (20) minute period, after sufficient user identification is established.
- Sessions shall automatically be terminated after sixty (60) minutes of inactivity.

- Users are required to change their passwords at least once every 90 days.
- Passwords must be promptly changed whenever a compromise of a password is known or suspected.

2.4 Integrity Controls & Data Protection

- All computer workstations accessing IPAWS-OPEN must be protected by up-to-date anti-virus software. Virus scans must be performed on a periodic basis and when notified by the anti-virus software.
- Users accessing interoperable system(s) to utilize IPAWS-OPEN must:
    - Physically protect computing devices such as laptops, PEDs, blackberry devices, smartphones, etc;
    - Protect sensitive data sent to or received from IPAWS-OPEN;
    - Not use peer-to-peer (P2P) file sharing, which can provide a mechanism for the spreading of viruses and put sensitive information at risk;
    - Not program computing devices with automatic sign-on sequences, passwords or access credentials when utilizing IPAWS-OPEN.

Users may not provide personal or official IPAWS-OPEN information solicited by e-mail. If e-mail messages are received from any source requesting personal information or asking to verify accounts or other authentication credentials, immediately report this and provide the questionable e-mail to the Local System Administrator and/or the Virginia Department of Emergency Management Help Desk.

- Only devices officially issued through or approved by DHS, FEMA and/or approved emergency management organizations are authorized for use to interoperate with IPAWS-OPEN and use of personal devices to access and/or store IPAWS-OPEN data and information is prohibited.
- If a Blackberry, smartphone or other PED is used to access the interoperable system(s) to utilize IPAWS-OPEN, the device must be password protected and configured to timeout or lock after 10 minutes of inactivity.
- If sensitive information is processed, stored, or transmitted on wireless devices, it must be encrypted using approved encryption methods.

2.5 System Access Agreement

- I understand that I am given access to the interoperable system(s) and IPAWS-OPEN to perform my official duties.
- I will not attempt to access data, information or applications I am not authorized to access nor bypass access control measures.
- I will not provide or knowingly allow other individuals to use my account credentials to access the interoperable system(s) and IPAWS-OPEN.
- To prevent and deter others from gaining unauthorized access to sensitive resources, I will log off or lock my computer workstation or will use a password-protected screensaver whenever I step away from my work area, even for a short time and I will log off when I leave for the day.
- To prevent others from obtaining my password via "shoulder surfing", I will shield my keyboard from view as I enter my password.
- I will not engage in, encourage, or conceal any hacking or cracking, denial of service, unauthorized tampering, or unauthorized attempted use of (or deliberate disruption of) any data or component within the interoperable system(s) and IPAWS-OPEN.

- I agree to inform my Local System Administrator when access to the interoperable system(s) and/or IPAWS-OPEN is no longer required.

- I agree that I have completed Computer Security Awareness training as may be required by my jurisdiction prior to my initial access to the interoperable system(s) and IPAWS-OPEN and that as long as I have continued access, I will complete Computer Security Awareness training on an annual basis. If my jurisdiction does not provide Computer Security Awareness training, I will complete the FEMA self-study course *IS-906: Workplace Security Awareness* (https://training.fema.gov/is/courseoverview.aspx?code=IS-906) on an annual basis.

2.6 Accountability

- I understand that I have no expectation of privacy while using any services or programs interoperating with IPAWS-OPEN.

- I understand that I will be held accountable for my actions while accessing and using interoperable system(s) and IPAWS-OPEN, including any other connected systems and IT resources.

- I understand it is my responsibility to protect sensitive information from disclosure to unauthorized persons or groups.

- I understand that I must comply with all software copyrights and licenses pertaining to the use of IPAWS-OPEN.

2.7 Incident Reporting

- I will promptly report IT security incidents, or any incidents of suspected fraud, waste or misuse of systems to the Local System Administrator and/or the Virginia Department of Emergency Management Help Desk.

3.0 IPAWS-OPEN Rules of Behavior Statement of Acknowledgement

I have read and agree to comply with the requirements of these Rules of Behavior. I understand that the terms of this agreement are a condition of my initial and continued access to Virginia Department of Emergency Management Interoperable System(s) *and IPAWS-OPEN and related services and that if I fail to abide by the terms of these Rules of Behavior, my access to any and all IPAWS-OPEN information systems may be terminated and I may be subject to criminal or civil prosecution. I have read and presently understand the above conditions and restrictions concerning my access.*

Printed Name (as listed in Appendix B): Archer Stark

Signature: [signature] Date: 7/21/2020

ATTACHMENT 6: Relevant Virginia Radiological Emergency Response Plan (Technical Support Document) Appendices and Procedures:

Appendix 1: Direct and Control

Appendix 4: Notification and Warning

Appendix 9: Public Information

7-260 EAS and WEA Activation Procedures

4-030 Radiological Emergency Procedures

Appendix 1

Direction and Control

A. Authority

At the local level, direction and control of radiological emergency response is the responsibility of the local Director of Emergency Management. At the State level, the Governor will direct the emergency response through the State Coordinator of Emergency Management who will coordinate implementation of the Commonwealth ofVirginia Radiological Emergency Response Plan (COVRERP) Technical Support Document.

B. Line of Succession

The State Line of Succession is included in Direction and Control in the Commonwealthof Virginia Emergency Operations Plan. The local Line of Succession is included in eachlocal government's Emergency Operations Plan.

C. Emergency Operations Center (EOC)

1. Off-site emergency operations will be coordinated from the Virginia EOC and respective local government Emergency Operations Centers. Each local government within the plume Emergency Planning Zone (EPZ) will receive reports of events occurring at fixed nuclear facilities at the local government Central Dispatch Offices which are manned 24 hours each day. Affected local government will receive reportsof events occurring at Naval Nuclear Propulsion Program (NNPP) sites at the local government Central Dispatch Offices. When a report of an emergency is classified asan Alert or more severe emergency classification level, local EOCs will be activated, unless otherwise indicated in the local Radiological Emergency Response Plan.

2. The Virginia EOC is manned 24 hours a day, 7 days a week. The Virginia Department of Emergency Management (VDEM) Virginia Emergency Support Team(VEST) Director is responsible for assuming continuity of resources at the EOC. Whenever notification is received of a radiological emergency classed as an Alert or Site Area Emergency, Virginia EOC staffing will immediately be increased to include, as a minimum, 24-hour staffing by a VEST Coordinator, an Office of Radiological Health, Radiological Health Officer, VDEM REPP Advisor (Radiological Program Manager and Radiological Planner), and a Public Affairs Officer.

3. The Virginia EOC will also dispatch liaison personnel to the Corporate Emergency Response Center (CERC) or local Naval Nuclear Propulsion Program Emergency

Control Center (ECC), Joint Information Center (JIC), and other locations and alert other State agencies assigned emergency tasks under this Plan to standby status at this time. A VDEM Regional Disaster Services staff and Office of Radiological Health Liaison Officer will assist and support local governments from the Virginia EOC or other appropriate locations, as requested and as available.

4. When notified of a General Emergency, the Virginia EOC staff will be further augmented on a 24-hours-a-day basis with representatives of the Virginia State Police, the Department of Military Affairs, the Virginia Department of Agriculture and Consumer Services, the Division of Emergency Medical Services, Virginia Department of Transportation, Virginia Cooperative Extension, and other agencies asneeded. VDEM will also augment its staff with additional communications personnel. We will evaluate any emergency action level notification and base EOC and Regional staffing in accordance with our VEST and Regional standard operating guides.

5. All State agencies not reporting to the Virginia EOC but who have assigned emergency tasks under the Plan will staff their normal duty stations on a 24-hour basis during a General Emergency.

D. Corporate Emergency Response Center (CERC)

1. The CERC will be activated as soon as practical whenever there is a radiological incident at the Surry Power Station or North Anna Nuclear Power Station that reaches an Emergency Classification Level (ECL) of an Alert, Site Area Emergency, or General Emergency.

2. The CERC provides the focal point for receipts of all off-site monitoring reports, for joint State-licensee accident assessment, and for exchange of information between the licensee and the State.

3. State personnel assigned to the CERC include a State On-Scene Coordinator (SOSC), Radiological Assessment Officer, Dose Assessment Officer, and Field Team Coordinator. These personnel will keep the Virginia EOC constantly apprised of off- site radiation assessment and the on-site emergency situation.

E. Naval Nuclear Propulsion Program Emergency Control Center

1. The Naval Nuclear Propulsion Program local Emergency Control Center will be activated for radiological or reactor emergencies in accordance with NNPP protocols.There are local ECC's located at NNSY (utilized for emergencies at NNSY and NAVSTA Norfolk) and NGNN (used for emergencies at NGNN). Depending on the circumstances of the event, each shipyard's ECC may serve as an alternate for the others ECC.

2. The local ECC provides the focal point for receipts of all on-site and off-site monitoring reports, joint State-NNPP accident assessment, and for exchange of information between the NNPP and the State. The local NNPP ECC's are set-up to accommodate a State On-Scene Coordinator (SOSC), a Radiological Assessment Officer, Dose Assessment Officer, and Field Team Coordinator.

3. For information on radiological and reactor emergencies involving NNPP facilities or ships, refer to Appendix 18.

F. Communications

Communication networks necessary for the adequate control and coordination of emergency operations to respond to a radiological emergency will be established, maintained, and operated as set forth in Appendix 10.

For communications information on radiological and reactor emergencies involving NNPP facilities or ships, refer to Appendix 18.

G. Public Affairs

1. In a General Emergency, the Office of the Governor may assume responsibility for coordination of all news releases. Otherwise, at the State level, the release of all information to the public through media channels will be coordinated by the VDEM Public Information Office (PIO).

2. The VDEM PIO will work closely and coordinate news releases with the appropriate Federal agencies as well as with the nuclear facility operator who will share facilities at the JIC or NNPP Facility.

3. Mass media representatives will be briefed on a scheduled basis at the JIC. The VDH Lead or Radiological Operations Officer will provide technical information from the Virginia EOC, if necessary. The VDEM PIO located at the JIC will develop all news releases based on information received from the Virginia EOC and will coordinate all news releases with the PIO at the Virginia EOC and copy the local PIO of each jurisdiction involved in the emergency.

4. For public affairs information on radiological and reactor emergencies involving NNPP facilities or ships, refer to Appendix 18.

H. Hostile Action

1. A hostile action is "an act toward a nuclear power plant or its personnel that includes the use of violent force to destroy equipment, take hostages, and/or intimidate the licensee to achieve an end. This includes attack by air, land, or water using guns, explosives, projectile, vehicles, or other devices used to deliver destructive force." A hostile action incident is defined as a situation where one or more suspects uses deadly force (i.e., weapons, vehicles, etc.) on other persons and continues to do so while having unrestricted access to additional potential victims. The overriding objective of the attacker(s) is to inflict serious bodily injury/death rather than other more specific criminal conduct (i.e., robbery, abduction, etc.).

2. The mission of authorities is to secure and protect citizens from the effects of hostile action incidents (i.e., active shooter events, hostage taking, and kinetic energy attacks) by developing the necessary tactics, techniques, and procedures, as well as contingency plans and response capabilities to effectively respond to and recover from such events. Hostile action incidents have caused a paradigm shift in law enforcement training and tactics, especially as these persons (the attackers) do not necessarily expect to escape or even survive these events. Hostile action situations aredynamic and evolve rapidly, demanding immediate deployment of law enforcement resources to halt the attack and mitigate harm to innocent victims.

3. Local law enforcement agencies are responsible for initially responding to hostile action events. Once determined to be a terrorist event, VDEM will be responsible for coordinating the response to and recovery from the consequences precipitated by the situation. Virginia State Police (VSP) will be the lead law enforcement agency responsible for the investigation of the incident at the State level.

4. VDEM, in coordination with VSP, will deploy technical teams who are trained and equipped to deal with hazardous materials and situations if the attackers have these types of materials in their possession at the time of the incident. VDEM will coordinate, through the Regional Coordinators, assistance to the respective localities.If advanced communications capabilities are requested by the localities involved, VDEM will deploy the necessary equipment and personnel to support such a request.

5. Notification of all suspected, threatened, or executed terrorist acts (including active shooter) will be made to the EOC.

6. A hostile action incident may also include a rapid escalating incident. A rapid escalating incident is an incident that develops potential or actual severe core damage within a short time. Such an incident results in an initial declaration of or rapid escalation to a Site Area Emergency or General Emergency.

7. Due to the varying nature and speed of the event scenario(s), flexibility and discretionary implementation of checklist items may be required to expedite notifications and actions. During a hostile action incident, actions may include:

   - Providing public information/warning concerning law enforcement security area,
   - Providing VEST liaison local law enforcement security area assets and ESF13,
   - Convening a conference bridge line for stakeholders during PAD decision process,
   - Establishing a separate bridge line for key leaders to participate in decision making if they are not present in the EOC,
   - Including near-site Incident Command Post (ICP) on conference bridge line,
   - Notifying and deploying assets to support near-site ICP/Security Zone including VEST assets, ESF15, IMT, communications support, etc.,
   - Determining if Security Zone and lockdown have been established

   Some items may be superseded by current mission requirements. Examples of this may include notification versus restriction notices to railways, notification to standby versus water route restrictions, and methods of communications altered to support information exchange.

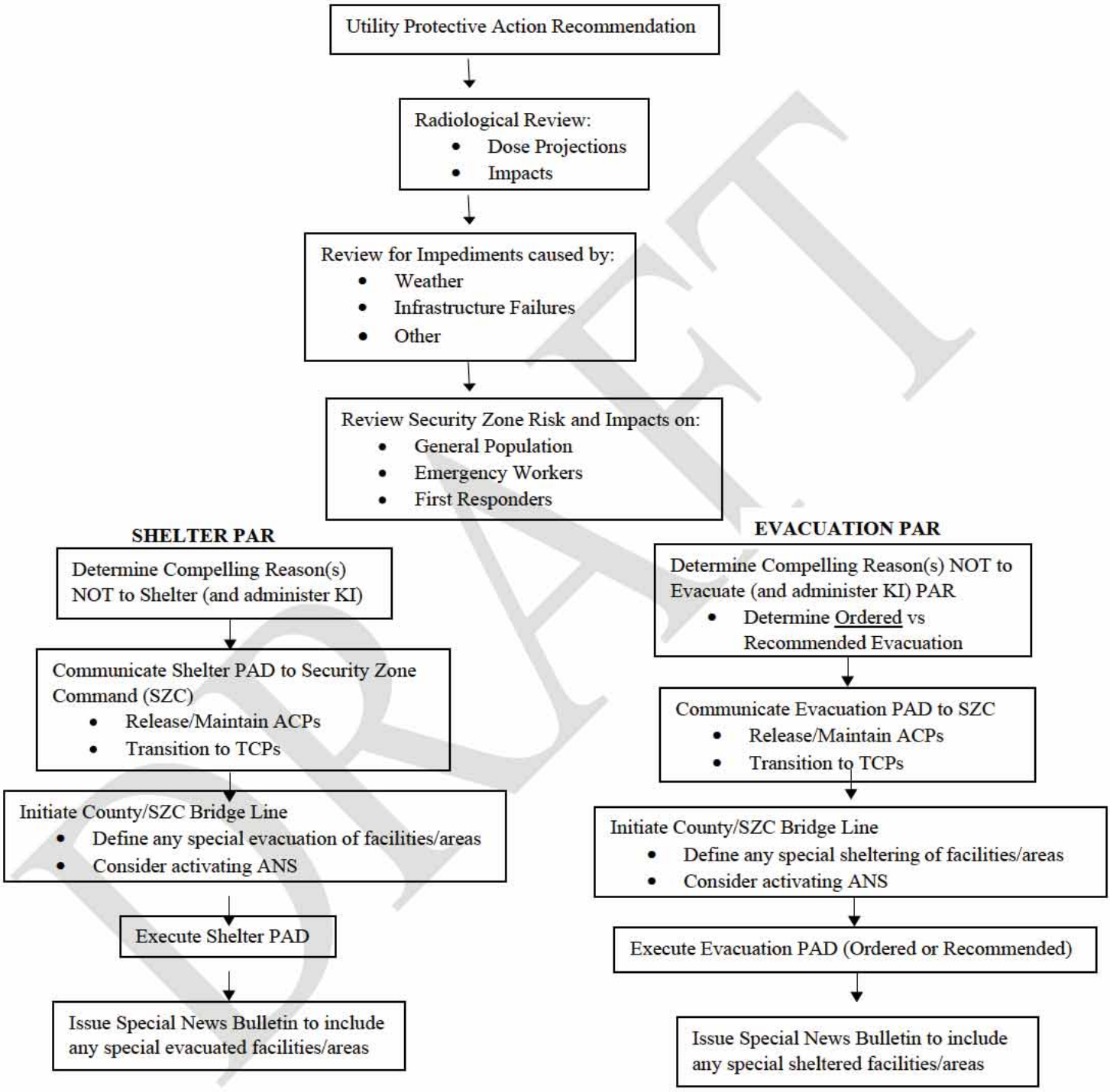
8. Refer to the flowchart in Tab A for protective action decision-making during hostile actions or rapidly progressing events.

Attachments

Tab A PAD Flowchart Based on Hostile Actions or Rapidly Escalating Incidents
Tab B Virginia EOC Action Checklists
Tab C State On-Scene Coordinator Checklist

Tab A to Appendix 1

Protective Action Decision Flowchart
Based on Hostile Action or Rapidly Escalating Incidents



Tab B to Appendix 1

Virginia EOC Action Checklists

Checklists for nuclear power plant accident operations are listed for each applicable ECL. Some positions do not have responsibilities at the Unusual Event ECL. Some positions have different actions for North Anna Power Station and Surry Power Station. Checklists are given for the following positions:

- Operations Chief
- Plans Chief
- External Affairs Chief
- Situational Awareness Unit
- VDEM REPP Advisor
    - Radiological Program Manager
    - Radiological Planner
- VDH Radiological Health Planner
- VEST Team Lead

Operations Chief - Unusual Event

Step	Time Completed	Action		
102		Consider VEST Conference Call (on call Team & Team D)		
104		If required, create an event in the crisis management system		
105		If required, conduct VEST Conference Call		
Conducted by:		**Position/Title:**	**Signed:**	**Date:**
Approved by:		**Position/Title:**	**Signed:**	**Date:**

Operations Chief - Alert

Step	Time Completed	Action		
202		Consider Incident VEST Conference Call (on call Team & Team D)		
203		If required, transmit SWAN Alert to VEST (on call and Team D), VDEM REPP Advisor (Radiological Program Manager and Radiological Planner), VDEM Radiological Protection Officer, and VDH Radiological Health Planner to participate in VEST conference call. Include Dominion Representative.		
204		Create an event in the crisis management system		
205		If required, conduct VEST Conference Call		
220		Upon notification of Declaration of a State of Emergency, direct Situational Awareness Unit to send a SWAN Alert message to "VEST SIGNIFICANT EVENT" Group and transmit a VCIN notification.		
Conducted by:		**Position/Title:**	**Signed:**	**Date:**
Approved by:		**Position/Title:**	**Signed:**	**Date:**

Operations Chief – Site Area Emergency – Surry Power Station

Step	Time Completed	Action
302		Consider Incident VEST (on-call Team and Team D) Conference Call
303		If required, transmit SWAN Alert to VEST (on call and Team D), VDEM REPP Advisor (Radiological Program Manager and Radiological Planner), VDEM Radiological Protection Officer, VDH Radiological Health Planner to participate in VEST conference call. Include Dominion Representative.
304		If required, create an event in the crisis management system
305		If required, conduct VEST Conference Call
321		Upon notification of Declaration of a State of Emergency, direct the Situational Awareness Unit to send a SWAN Alert message to "VEST SIGNIFICANT EVENT" Group and transmit a VCIN notification.
329		Contact: Fort Eustis Command Duty Officer [redacted]
		North Carolina Emergency Operations Center [redacted]
		Coast Guard Sector Hampton Roads [redacted] request establish a safety zone on the James River in the vicinity of the Surry Power Station until otherwise notified. Convey decision to PIO for dissemination to the public
		Federal Aviation Administration [redacted] to request a Temporary Flight Restriction (TFR) in the vicinity and downwind of the Surry Power Station until further notice. Convey decision to PIO for dissemination to the public
		Norfolk Southern Corporation to request the termination of rail service in the affected area until further notice [redacted] Convey decision to PIO for dissemination to public
		CSX Corporation, request the termination of rail service in the affected area until further notice [redacted] Convey decision to PIO for dissemination to the public
		VDOT, Jamestown-Scotland Ferry, request termination of operations or limiting operations to emergency vehicles only. Convey decision to PIO for dissemination to public
330		Consider whether the Department of Conservation and Recreation, and request clearing of state parks (Chippokes Park). Convey decision to PIO for dissemination to the public

Conducted by:	**Position/Title:**	**Signed:**	**Date:**
Approved by:	**Position/Title:**	**Signed:**	**Date:**

Operations Chief – Site Area Emergency – North Anna Power Station

Step	Time Completed	Action
302		Consider VEST (on-call Team and Team D) Conference Call
303		If required, transmit SWAN Alert to VEST (on call and Team D), VDEM REPP Advisor (Radiological Program Manager and Radiological Planner), VDEM Radiological Protection Officer, VDH Radiological Health Planner to participate in VEST conference call. Include Dominion Representative.
304		If required, create an event in the crisis management system
305		If required, conduct VEST Conference Call
321		Upon notification of Declaration of a State of Emergency, direct the Situational Awareness Unit to send SWAN Alert message to "VEST SIGNIFICANT EVENT" Group and transmit a VCIN notification.
332		Contact: Maryland Emergency Operations Center [redacted]
		Federal Aviation Administration [redacted] request Temporary Flight Restriction in the vicinity and downwind of the North Anna Power Station until further notice. Convey decision to PIO for dissemination to the public
		Department of Wildlife Resources [redacted], request clearing of Lake Anna Park. Convey decision to PIO for dissemination to the public
		CSX Corporation, request the termination of rail service in the affected area until further notice [redacted] Convey decision to PIO for dissemination to the public
333		US Coast Guard & Department of Wildlife Resources [redacted] Department of Conservation and Recreation and request clearing of state lakes and parks (Lake Anna & Lake Anna Park). Convey decision to PIO for dissemination to the public

Conducted by:	Position/Title:	Signed:	Date:
Approved by:	**Position/Title:**	**Signed:**	**Date:**

Operations Chief – General Emergency – Surry Power Station

Step	Time Completed	Action
402		Consider VEST (on-call Team and Team D) Conference Call
404		If required, conduct VEST Conference Call
406		If required, create an event in the crisis management system
420		Upon notification of Declaration of a State of Emergency, direct the Situational Awareness Unit to send a SWAN Alert message to "VEST SIGNIFICANT EVENT" Group and transmit a VCIN notification.
435		Contact: Fort Eustis Command Duty Officer[redacted]
		North Carolina Emergency Operations Center[redacted]
		Coast Guard Sector Hampton Roads[redacted] request establish a safety zone on the James River in the vicinity of the Surry Power Station until otherwise notified. Convey decision to PIO for dissemination to the public.
		Federal Aviation Administration[redacted] request Temporary Flight Restriction in the vicinity and downwind of the Surry Power Station until further notice. Convey decision to PIO for dissemination to the public.
		Norfolk Southern Corporation, request the termination of rail service in the affected area until further notice[redacted] Convey decision to PIO for dissemination to public.
		CSX Corporation, request the termination of rail service in the affected area until further notice[redacted] Convey decision to PIO for dissemination to the public.
		Department of Conservation and Recreation and request clearing of state parks (Chippokes Park). Convey decision to PIO for dissemination to the public.
		VDOT, Jamestown-Scotland Ferry, request termination of operations or limiting operations to emergency vehicles only. Convey decision to PIO for dissemination to public.

Conducted by:	Position/Title:	Signed:	Date:
Approved by:	**Position/Title:**	**Signed:**	**Date:**

Operations Chief – General Emergency – North Anna Power Station

Step	Time Completed	Action
402		Conduct Incident VEST (on-call Team and Team D) Conference Call
404		If required, conduct VEST Conference Call
406		If required, create an event in the crisis management system
420		Upon notification of Declaration of a State of Emergency, direct the Situational Awareness Unit to send a SWAN Alert message to "VEST SIGNIFICANT EVENT" Group and transmit a VCIN notification.
436		Contact: Maryland Emergency Operations Center [redacted]
		Federal Aviation Administration [redacted] request Temporary Flight Restriction in the vicinity and downwind of the North Anna Power Station until further notice. Convey decision to PIO for dissemination to the public.
		CSX Corporation, request the termination of rail service in the affected area until further notice [redacted] Convey decision to PIO for dissemination to the public.
437		Contact US Coast Guard & Department of Wildlife Resources [redacted] Department of Conservation and Recreation and request clearing of state lakes and parks (Lake Anna & Lake Anna Park). Convey decision to PIO for dissemination to the public.

Conducted by:	Position/Title:	Signed:	Date:
Approved by:	**Position/Title:**	**Signed:**	**Date:**

Plans Chief-Alert

Step	Time Completed	Action		
212		Transmit spot report		
221		Determine local Emergency Assembly Center (EAC) and Emergency Operations Center (EOC) status		
222		Provide situational awareness update to the VEST		
Conducted by:		**Position/Title:**	**Signed:**	**Date:**
Approved by:		**Position/Title:**	**Signed:**	**Date:**

Plans Chief-Site Area Emergency

Step	Time Completed	Action		
312		Transmit spot report		
322		Determine local Emergency Assembly Center (EAC) and Emergency Operations Center (EOC) status		
323		Provide situational awareness update to VEST		
327		Upon receipt of Protective Action Recommendation (PAR), Protective Action Task Force meets to provide recommendations and guidance to VEST Coordinator for consideration		
Conducted by:		**Position/Title:**	**Signed:**	**Date:**
Approved by:		**Position/Title:**	**Signed:**	**Date:**

Plans Chief-General Emergency

Step	Time Completed	Action		
406		If required, create an event in the crisis management system		
412		Transmit spot report		
421		Determine local Emergency Assembly Center (EAC) and Emergency Operations Center (EOC) status		
422		Provide situational awareness update to VEST		
425		Upon receipt of Protective Action Recommendation (PAR), Protective Action Task Force meet to provide recommendations and guidance to VEST Coordinator for consideration.		
438		Report status of evacuation and sheltering activities and update staff as needed		
445		Provide situational awareness update to the VEST		
Conducted by:		**Position/Title:**	**Signed:**	**Date:**
Approved by:		**Position/Title:**	**Signed:**	**Date:**

External Affairs Chief-Alert

Step	Time Completed	Action		
213		Alert Governor's Press Secretary		
		Staff VEOC Joint Information Center (JIC)		
		Open the Virginia Public Inquiry Center by contacting Virginia 2-1-1		
		Request External Affairs staff from Dominion Energy to report to the JIC [redacted]		
214		Confirm that Dominion has drafted and sent "Alert" news release		
215		Coordinate with VDACS to ensure the "stored feed and covered water" news release for Livestock (if recommended by Virginia Department of Health, Office of Radiological Health) has been drafted for dissemination when deemed appropriate		
217		Contact local government PIOs and FEMA Region III PIO		
218		Coordinate with Dominion and state partners on the potential for holding a news briefing		
Conducted by:		**Position/Title:**	**Signed:**	**Date:**
Approved by:		**Position/Title:**	**Signed:**	**Date:**

External Affairs Chief-Site Area Emergency

Step	Time Completed	Action
313		Alert Governor's Press Secretary
		Staff VEOC Joint Information Center (JIC)
		Open the Virginia Public Inquiry Center by contacting Virginia 2-1-1
		Request External Affairs staff from Dominion Energy to report to the JIC [redacted]
314		Contact Local Government PIOs and FEMA Region III PIO
315		Confirm that Dominion has drafted and sent "Site Area Emergency" news release
316		Coordinate with VDACS to ensure the "stored feed and covered water" news release for Livestock (if recommended by Virginia Department of Health, Office of Radiological Health) has been drafted for dissemination when deemed appropriate
318		Consider sending out an EAS message
319		Coordinate with Dominion and state partners on the potential for holding a news briefing
331		Confirm that the following news releases are being considered: • Suspension of Jamestown-Scotland Ferry service (Virginia Department of Transportation (VDOT)) – **SPS Only** • Clearing of the James River in the vicinity of Surry Nuclear Power Station (US Coast Guard) – **SPS Only** • Closure of Lake Anna (Department of Wildlife Resources (DWR)) – **NAPS Only** • Flight restrictions (Virginia Department of Aviation (DOAV)/FAA) • Rail service termination (Virginia Department of Rail and Public Transportation (DRPT)) • State parks closure news release(s) as needed (Virginia Department of Conservation and Recreation (DCR))

Conducted by:	**Position/Title:**	**Signed:**	**Date:**
Approved by:	**Position/Title:**	**Signed:**	**Date:**

External Affairs Chief-General Emergency

Step	Time Completed	Action
413		Alert Governor's Press Secretary
		Staff VEOC Joint Information Center (JIC)
		Open the Virginia Public Inquiry Center by contacting Virginia 2-1-1
		Request External Affairs staff from Dominion Energy to report to the JIC [redacted]
414		Confirm that Dominion has drafted and sent "General Emergency" news release
415		Contact Local Government PIOs and FEMA Region III PIO
416		Coordinate with Dominion and state partners on the potential for holding a news briefing
418		Coordinate with VDACS to ensure the "stored feed and covered water" news release for Livestock (if recommended by Virginia Department of Health, Office of Radiological Health) has been drafted for dissemination when deemed appropriate
430		Draft and send EAS message and news release. Ensure all necessary and related press releases contain the PAD.
434		~~Send EAS news release~~
436		~~Ensure all necessary and related press releases contain the PAD~~
440		Confirm that the following news releases are being considered: • Suspension of Jamestown-Scotland Ferry service (Virginia Department of Transportation (VDOT)) – **SPS Only** • Clearing of the James River in the vicinity of Surry Nuclear Power Station (US Coast Guard) – **SPS Only** • Closure of Lake Anna (Department of Wildlife Resources (DWR)) – **NAPS Only** • Flight restrictions (Virginia Department of Aviation (DOAV)/FAA) • Rail service termination (Virginia Department of Rail and Public Transportation (DRPT)) • State parks closure news release(s) as needed (Virginia Department of Conservation and Recreation (DCR))
447		If needed, ensure VDH has drafted KI news release Draft the EAS message Ensure all necessary and related press releases contain the PAD
451		If needed, ensure VDH has sent KI news release

Conducted by:	Position/Title:	Signed:	Date:

Approved by:	Position/Title:	Signed:	Date:

Situational Awareness Unit - Unusual Event

Step	Time Completed	Action
100		Receive Emergency Notification Form via DEENS for Notification of Unusual Event
		Enter into crisis management system, as appropriate
101		Transmit SWAN Alert to applicable "Emergency Notification North Anna or Surry NPS" and "All VDEM" including situation and incident specific information
103		If required, transmit SWAN Alert to VEST (on call and Team D), VDEM REPP Advisor (Radiological Program Manager and Radiological Planner, VDEM Radiological Protection Officer, and VDH Radiological Health Planner to participate in VEST conference call. Include Dominion Representative
107		Notify FEMA Region III Watch Office[redacted]
108		Upon incident closure, transmit SWAN Alert to "Emergency Notification North Anna or Surry NPS" and "All VDEM"
109		Document all information and notifications in the crisis management system

Conducted by:	**Position/Title:**	**Signed:**	**Date:**
Approved by:	**Position/Title:**	**Signed:**	**Date:**

Situational Awareness Unit - Alert

Step	Time Completed	Action
200		Receive Emergency Notification Form via DEENS for Alert
		Enter into crisis management system, as appropriate
201		Transmit SWAN Alert to applicable "Emergency Notification North Anna or Surry NPS" and "All VDEM" including situation and incident specific information
203		If required, transmit SWAN Alert to VEST (on call and Team D), VDEM REPP Advisor (Radiological Program Manager and Radiological Planner), VDEM Radiological Protection Officer, and VDH Radiological Health Planner to participate in VEST conference call. Include Dominion Representative
207		Notify FEMA Region III Watch Officer [redacted]
208		Confirm VDEM State On-Scene Coordinator en route to the CERC
		Confirm VDEM Radiological Protection Officer en route to the CERC
209		Verify arrival of VDEM State On-Scene Coordinator at the CERC
210		Verify arrival of VDEM Radiological Protection Officer at the CERC
226		Upon incident closure, transmit SWAN Alert to "Emergency Notification North Anna or Surry NPS" and "All VDEM"
227		Document all information and notifications in the crisis management system

Conducted by:	**Position/Title:**	**Signed:**	**Date:**
Approved by:	**Position/Title:**	**Signed:**	**Date:**

Situational Awareness Unit – Site Area Emergency

Step	Time Completed	Action
300		Receive Emergency Notification Form via DEENS for Site Area Emergency
		Enter into crisis management system, as appropriate
301		Transmit SWAN Alert to applicable "Emergency Notification North Anna or Surry NPS" and "All VDEM" including situation and incident specific information
		Notify ingestion pathway jurisdictions of Site Area Emergency
303		If required, transmit SWAN Alert to VEST (on call and Team D), VDEM REPP Advisor (Radiological Program Manager and Radiological Planner), VDEM Radiological Protection Officer, and VDH Radiological Health Planner to participate in VEST conference call. Include Dominion Representative
307		Notify FEMA Region III Watch Officer[redacted]
308		Confirm VDEM State On-Scene Coordinator en route to the CERC
		Confirm VDEM Radiological Protection Officer en route to the CERC
309		Verify arrival of VDEM State On-Scene Coordinator at the CERC
310		Verify arrival of VDEM Radiological Protection Officer at the CERC
321		Upon notification of Declaration of a State of Emergency, direct the Situational Awareness Unit to send SWAN Alert message to "VEST SIGNIFICANT EVENT" Group and transmit a VCIN notification.
336		Upon incident closure, transmit SWAN Alert to "Emergency Notification North Anna or Surry NPS" and "All VDEM"
337		Document all information and notifications in the crisis management system

Conducted by:	**Position/Title:**	**Signed:**	**Date:**
Approved by:	**Position/Title:**	**Signed:**	**Date:**

Situational Awareness Unit – General Emergency

Step	Time Completed	Action
400		Receive Emergency Notification Form via DEENS for General Emergency
		Enter into crisis management system, as appropriate
401		Transmit SWAN Alert to applicable "Emergency Notification North Anna or Surry NPS" and "All VDEM" including situation and incident specific information
		Notify ingestion pathway jurisdictions of General Emergency
403		If required, transmit SWAN Alert to VEST (on call and Team D), VDEM REPP Advisor (Radiological Program Manager and Radiological Planner), VDEM Radiological Protection Officer, and VDH Radiological Health Planner to participate in VEST conference call. Include Dominion Representative
407		Notify FEMA Region III Watch Officer [redacted]
408		Confirm VDEM State On-Scene Coordinator en route to the CERC
		Confirm VDEM Radiological Protection Officer en route to the CERC
409		Verify arrival of VDEM State On-Scene Coordinator at CERC
410		Verify arrival of VDEM Radiological Protection Officer at CERC
420		Upon notification of Declaration of a State of Emergency, direct the Situational Awareness Unit to send a SWAN Alert message to "VEST SIGNIFICANT EVENT" Group and transmit a VCIN notification.
427		Notify affected localities of impending PAR conference call (use "REPORT OF CONFERENCE CALL" form)
428		Upon receipt of "REPORT OF PROTECTIVE ACTION RECOMMENDATIONS" form, conduct conference call with affected localities
431		Upon receipt of "REPORT OF PROTECTIVE ACTION DECISION" form, conduct conference call with affected localities
432		Activate the alert and notification system (IPAWS) and transmit WEA, EAS, and Everbridge Resident Connect messages for PAD. Utilize alternates if necessary,
433		Verify WEA message for PAD was successful and confirm result to VEOC through the VDEM REPP Advisor.
444		Upon receipt of "REPORT OF KI DECISION AND ADMINISTRATION" form, conduct conference call with affected localities.
448		If needed, transmit WEA, EAS, and Everbridge Resident Connect messages for KI Decision. Utilize alternate if necessary.

449		If needed, Verify WEA for KI Decision was successful and confirm result to VEOC through the VDEM REPP Advisor (Radiological Program Manager and/or Radiological Planner)		
453		If needed, verify WEA and EAS for KI Decision were successful and confirm results to VEOC through the VDEM REPP Advisors.		
453		Upon incident closure, transmit SWAN alert to applicable "Emergency Notification North Anna or Surry NPS" and "All VDEM"		
454		Document all information and notifications in the crisis management system		
Conducted by:		**Position/Title:**	**Signed:**	**Date:**
Approved by:		**Position/Title:**	**Signed:**	

VDEM REPP Advisor-Site Area Emergency

Step	Time Completed	Action		
327		Upon receipt of Protective Action Recommendation (PAR), Protective Action Task Force meets to provide recommendations and guidance to VEST Coordinator for consideration		
Conducted by:		**Position/Title:**	**Signed:**	**Date:**
Approved by:		**Position/Title:**	**Signed:**	**Date:**

VDEM REPP Advisor-General Emergency

Step	Time Completed	Action		
427		Notify affected localities of impending PAR conference call (use "REPORT OF CONFERENCE CALL" form)		
428		Upon receipt of "REPORT OF PROTECTIVE ACTION RECOMMENDATIONS" form, conduct conference call with affected localities		
431		Upon receipt of "REPORT OF PROTECTIVE ACTION DECISION" form, conduct conference call with affected localities.		
434		Notify State On-Scene Coordinator of PAD and ANS activation time		
443		Convene Protective Action Task Force to share Health Commissioner's Potassium Iodide (KI) decision if needed		
444		Upon receipt of "REPORT OF KI DECISION AND ADMINISTRATION" form, conduct conference call with affected localities.		
446		If needed, notify State On-Scene Coordinator of KI decision and imminent public notification.		
450		Verify ANS for KI Decision were successful and confirm results to VEST Team Lead.		
Conducted by:		**Position/Title:**	**Signed:**	**Date:**
Approved by:		**Position/Title:**	**Signed:**	**Date:**

VDH Radiological Health Planner-Alert

Step	Time Completed	Action
211		Verify Staff Deployed to:
		Virginia Emergency Operations Center (VEOC)
		State Staging Area
		Corporate Emergency Response Center (CERC)
		Emergency Coordination Center for Public Health (ECC), when activated
216		If warranted, consider stored feed and covered water recommendation and coordinate with Virginia Department of Agriculture and Consumer Services/Public Relations Director tosend out "stored feed and covered water" news release for livestock
224		Confirm Department of Energy (DOE)/National Nuclear Safety Administration (NNSA) EOC has been alerted [redacted] alternatively, DOE Operations Center –Oak Ridge [redacted]
225		Request DOE prepare to deploy a Radiological Assistance Program (RAP) Team thru DOE/NNSA EOC [redacted]; alternatively, call RAP directly [redacted]
		Consider requesting Federal Radiological Monitoring & Assessment Center (FRMAC) Phase 1 Consequence Management Response Team (CMRT) through DOE/NNSA EOC [redacted] Alternatively, call FEMA Region III Watch Center [redacted]; determine and coordinate facility requirements to accommodate FRMAC
		Consider assistance request for plume modeling; if needed, contact Aerial Measurement Systems (AMS) for flyover and/or National Atmospheric Release Advisory Center (NARAC) through DOE/NNSA EOC [redacted] alternatively, call FEMA Region III Watch Center [redacted]

Conducted by:	**Position/Title:**	**Signed:**	**Date:**
Approved by:	**Position/Title:**	**Signed:**	**Date:**

VDH Radiological Health Planner-Site Area Emergency

Step	Time Completed	Action
311		Verify Staff Deployed to:
		Virginia Emergency Operations Center (VEOC)
		State Staging Area
		Corporate Emergency Response Center (CERC)
		Emergency Coordination Center for Public Health (ECC)
317		Consider stored feed and covered water recommendation and coordinate with Virginia Department of Agriculture and Consumer Services/Public Relations Director to send out "stored feed and covered water" news release for livestock
325		Confirm Department of Energy (DOE)/National Nuclear Safety Administration (NNSA) EOC has been alerted [redacted] alternatively, DOE Operations Center –Oak Ridge [redacted]
326		Request DOE prepare to deploy a Radiological Assistance Program (RAP) Team thru DOE/NNSA EOC [redacted]; alternatively, call RAP directly [redacted]
		Consider requesting Federal Radiological Monitoring & Assessment Center (FRMAC) Phase 1 Consequence Management Response Team (CMRT) through DOE/NNSA EOC [redacted]; alternatively, call FEMA Region III Watch Center [redacted]; determine and coordinate facility requirements to accommodate FRMAC
		Consider assistance request for plume modeling; if needed, contact Aerial Measurement Systems (AMS) for flyover and/or National Atmospheric Release Advisory Center (NARAC) through DOE/NNSA EOC [redacted] alternatively, call FEMA Region III Watch Center [redacted]

Conducted by:	Position/Title:	Signed:	Date:
Approved by:	**Position/Title:**	**Signed:**	**Date:**

VDH Radiological Health Planner-General Emergency

Step	Time Completed	Action		
411		Verify Staff Deployed to: Virginia Emergency Operations Center (VEOC)		
		State Staging Area		
		Corporate Emergency Response Center (CERC)		
		Emergency Coordination Center for Public Health (ECC)		
417		Consider stored feed and covered water recommendation and coordinate with Virginia Department of Agriculture and Consumer Services/Public Relations Director to send out"stored feed and covered water" news release for livestock		
424		Confirm Department of Energy (DOE)/National Nuclear Safety Administration (NNSA) EOC has been alerted [redacted] alternatively, DOE Operations Center –Oak Ridge [redacted]		
		Request DOE prepare to deploy a Radiological Assistance Program (RAP) Team thru DOE/NNSA EOC (202-586-8100); alternatively, call RAP directly (865-576-1005)		
		Consider requesting Federal Radiological Monitoring & Assessment Center (FRMAC) Phase 1 Consequence Management Response Team (CMRT) through DOE/NNSA EOC [redacted]; alternatively, call FEMA Region III Watch Center [redacted] determine and coordinate facility requirements to accommodate FRMAC		
		Consider assistance request for plume modeling; if needed, contact Aerial Measurement Systems (AMS) for flyover and/or National Atmospheric Release Advisory Center (NARAC) through DOE/NNSA EOC [redacted] alternatively, call FEMA Region III Watch Center [redacted]		
439		Obtain off-site radiation monitoring and detection activity results		
441		Determine if radiation sample results meet Potassium Iodide (KI) administration threshold and advise Health Commissioner.		
442		Obtain Health Commissioner recommendation on the administration of KI		
Conducted by:		**Position/Title:**	**Signed:**	**Date:**
Approved by:		**Position/Title:**	**Signed:**	**Date:**

VEST Team Lead - Unusual Event

Step	Time Completed	Action		
102		Consider VEST Conference Call (on call Team & Team D)		
105		If required, conduct VEST Conference Call		
106		Change VEOC status to "Increased Readiness"		
Conducted by:		**Position/Title:**	**Signed:**	**Date:**
Approved by:		**Position/Title:**	**Signed:**	**Date:**

VEST Team Lead - Alert

Step	Time Completed	Action		
202		Consider Incident VEST Conference Call (on call Team &Team D)		
205		If required, conduct VEST Conference Call		
206		Consider VEOC status change to Yellow "Increased Readiness" in accordance with VEST SOG.		
219		Consider request to Governor for Declaration of a State of Emergency		
223		Update FEMA Region III Watch Officer [redacted]		
Conducted by:		**Position/Title:**	**Signed:**	**Date:**
Approved by:		**Position/Title:**	**Signed:**	**Date:**

VEST Team Lead – Site Area Emergency

Step	Time Completed	Action		
302		Consider Incident VEST Conference Call (on call Team &Team D)		
305		If required, conduct VEST Conference Call		
306		Consider upgrading VEOC status to appropriate activation level. in accordance with VEST SOG.		
320		Consider request to Governor for Declaration of a State of Emergency in accordance with VEST SOG.		
324		Update FEMA Region III Watch Officer [redacted]		
328		Brief PAR to State Coordinating Officer		
335		Update FEMA Region III Watch Officer [redacted]		
Conducted by:		**Position/Title:**	**Signed:**	**Date:**
Approved by:		**Position/Title:**	**Signed:**	**Date:**

VEST Team Lead – General Emergency

Step	Time Completed	Action		
402		Consider Incident VEST Conference Call (on call Team &Team D)		
404		If required, conduct VEST Conference Call		
405		Consider upgrading VEOC status to appropriate activation level. in accordance with VEST SOG.		
419		Consider request to Governor for Declaration of a State of Emergency in accordance with VEST SOG.		
423		Update FEMA Region III Watch Officer [redacted]		
426		Brief PAR to State Coordinating Officer		
429		Present PAR to the State Coordinating Officer for briefing to the Governor to obtain Protective Action Decision (PAD)		
452		Update FEMA Region III Watch Officer [redacted]		
Conducted by:		**Position/Title:**	**Signed:**	**Date:**
Approved by:		**Position/Title:**	**Signed:**	**Date:**

Tab C to Appendix 1

State On-Scene Coordinator Checklist

This checklist is prescribed for the State On-Scene Coordinator (SOSC) to facilitate receipt and transmission of appropriate information between the utility, the state, and local governments from the utility's Corporate Emergency Response Center (CERC), which is activated at the Alert, or more severe, ECL.

Time Completed	Action
	Respond to Dominion Corporate Emergency Response Center (CERC). *Ensure you have credentials for access, computer, cell phone, and hot spot or Dominion corporate network access credentials.*
	Report to CERC and check in with Dominion Emergency Plan Advisor (EPA). *Consult organization chart on right wall facing front of room.*
	Identify pertinent CERC officials: VDH-ORH *Radiological Assessment Officer (RAO):*_____ *Dose Assessment Officer (DAO):*_____ *Field Team Coordinator (FTC):*_____ Dominion *Corporate Response Manager (CRM):*_____ *Emergency Plan Advisor (EPA):*_____
	Establish communications with VEOC - Protective Action Task Force *Record direct phone number here:*_____ *Record Direct POC:*_____ *Record email:*_____
	Receive Local Field Team Availability Report forms from VEOC – SAU by email.

	Receive initial briefing from Dominion Corporate Response Manager (CRM), including metrological data, current plant conditions, any trends that may indicate an increase in classification, and any unmet needs.
	Report initial briefing to VEOC Protective Action Task Force by email.
	Activate regional HAZMAT team assets to staff state field monitoring teams when requested by VDH-ORH staff. ***Initial resources: NAPS – Newport News, SPS – Henrico Co*** Provide number of assets needed and location of VDH-ORH field team staging area to regional team contact.
	Obtain current exposure control ratio from VDH-ORH staff
	Use PAR Impact Tool, and identify potential areas impacted based on current conditions and metrological data, number of potential population, and any special hazards, such as schools or hospitals.
	Identify potential field monitoring points within potentially impacted areas based on current conditions and metrological data. **Coordinate field monitoring points with VDH-ORH.**
	Provide initial Conditions Report to Local Radiological Officers. **Copy VEOC-SAU, VEOC-Protective Action Task Force, VDH-ORH, all EPZ ROs, and VDEM HMOs.** **Request VDEM-SAU transmit the form by email to local EMs.**
	Update VEOC – Protective Action Task Force on activities and current information.
	Request information from VEOC – Protective Action Task Force regarding: 1) establishment of the JIC; 2) stored feed and covered water recommendations; 3) closure of Lake Anna or restriction of vessel traffic on James River; 4) current EOC status; 5) FAA flight restrictions.
	Brief CRM on current state activities.
	Update VEOC – Protective Action Task Force upon changes in plant conditions or status. This step is repeated, since multiple updates may become necessary as conditions develop.
	Attend CERC PAR development review upon notification of radiological release.

	Obtain updated exposure control ratio from VDH-ORH.
	Update VEOC – Protective Action Task Force upon changes in plant conditions or status. **Advise task force of current plant conditions and any potential changing conditions that may impact their discussion.**
	Request notification of PAD and time of ANS activation. *Record time of ANS activation:*_____
	Provide updated Conditions Report to Local Radiological Officers. **Copy VEOC-SAU, VEOC-Protective Action Task Force, VDH-ORH, all EPZ ROs, and VDEM HMOs.** **Request VDEM-SAU transmit the form by email to local EMs.**
	Provide CRM updated status of state activities and time of ANS activation.
	Update VEOC – Protective Action Task Force upon changes in plant conditions or status that may require any additional/amended PARs to be issued, for example: *Expansion of affected area, or* *Implementation of KI administration*
	Attend CERC PAR development review upon any notification of a radiological release.
	Obtain updated exposure control ratio from VDH-ORH, if issued.
	Update VEOC – Protective Action Task Force upon changes in plant conditions or status. **Advise task force of current plant conditions and any potential changing conditions that may impact their discussion.**
	Request notification of any subsequent PAD and time of ANS activation. *Record time of ANS activation:*_____
	Provide updated Conditions Report to Local Radiological Officers. **Copy VEOC-SAU, VEOC-Protective Action Task Force, VDH-ORH, all EPZ ROs, and VDEM HMOs.** **Request VDEM-SAU transmit the form by email to local EMs.**
	Update CRM on status of state activities and any time of siren activation.

Position/Title:	**Signed:**	**Date:**
Position/Title:	**Signed:**	**Date:**